Meridian Mail

Meridian Mail

SEER Reference Manual for Nortel Support

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About this document

This reference manual lists and describes system event and error reports (SEERs). These reports, generated by Meridian Mail system software components, identify every significant system event and error occurring on Northern Telecom's Customer Premises Equipment (CPE) platform. SEERs may be displayed on a terminal or on a printer.

Many SEERs include "return codes" which are passed from one part of the system to another. A SEER generated by one software component may contain a return code from another related component. This combination of information from two related parts of the system helps you to separate symptoms and causes of a problem.

Who should use this reference manual

This manual is used primarily by Northern Telecom support personnel such as field technicians and system designers. You must be able to read, interpret and assess the severity of events and errors. You need to determine if a SEER is the result of a regular event, such as system audit, or the result of an error. By using one or more SEERs and/or return codes, you can determine if the system is running correctly, isolate a system fault, and diagnose actual and potential hardware and software problems.

Customers also have a SEER document, Meridian Mail *Maintenance Messages (SEERs)* (NTP 555-7001-510). In that manual they are advised that they must be ready to provide a collection of SEER reports and/or return codes which you, as their support organization, can use to determine the history of the problem. The customer document contains all of the information in this manual except the NT actions for each SEER report.

Equipment and software that generate the SEERs in this manual

The SEERs in this manual are generated by the software of the Meridian Mail voice processing system designed for use with the following:

- SL-100 switching equipment available to private organizations.
- Central Offices (with DMS-10 or DMS-100 systems) that provide voice messaging services to Centrex customers as well as residential and small business subscribers.
- Northern Telecom's Meridian 1 Communication Systems available in several configurations to suit existing switching equipment:
  - — Meridian Mail Modular Option EC
  - — Meridian Mail Modular Option
  - — Meridian Mail ST/RT Option
  - — Meridian Mail Option
  - — Meridian Mail Card Option
- a wide range of other switches that are not Northern Telecom products through the SMDI link. The Meridian Connections configuration enables Meridian Mail to connect to selected models of AT&T, Rolm and NEC PBXs through the SMDI protocol.

How this reference manual is organized

This book is organized into three parts.

The first part is an introduction to SEERs. SEER categories are described, and examples are given, and SEER filtering and throttling are discussed.

The second part contains one chapter for each SEER class. Each chapter introduces the SEER class, and in numeric order describes the SEER reports belonging to that class.

The last part of the manual is an appendix where return codes and error codes are listed by SEER class along with a brief description of each code. Several related codes are also listed here.

Related documents

The following documents would most frequently be used by Northern Telecom support personnel as additional references to the Meridian Mail

Maintenance Messages (SEERs) (NTP 555–7001–270), to fix a system event or error, presented as a SEER or return code.

Meridian Mail

- *Installation and Maintenance Guide* (NTP 555-7061-250) for Modular Option EC
- *Installation and Maintenance Guide* (NTP 555-7041-250) for Modular Option
- *Installation and Maintenance Guide* (NTP 555-7051-250) for Modular Option GP
- *Maintenance Procedures* (NTP 555-7011-500) for Options

Introduction

What are SEERs?

The System Event and Error Reports, (SEERs), generated by the Meridian Mail system software components, identify every significant system event and error that occurs. SEERs can be displayed on a terminal or printed out on a printer. The reports provide information about the SEER class, SEER number, the severity level of errors, the date and time that the SEER was generated, and a description of the event or error that occurred at that time. This information is used primarily by system administrators and maintenance personnel to confirm that a system is running correctly, to isolate a system fault, to diagnose a hardware or software problem, or to solve a problem.

An Event is a minor glitch or an announcement of normal system activities, for example, the completion of an automatic tape backup. Events documented in a SEER do not usually indicate a problem with the Meridian Mail functionality.

An Error is a hardware or software fault that may prevent Meridian Mail from functioning properly, for example, a hardware component failed diagnostics, or a failure to find a system file. An error creates one or more SEERs.

You must be able to read, interpret, and assess the severity of events and errors to determine if they are regular system events (such as a system audit) or system errors. An understanding of SEERs is also essential for diagnosing problems. Before asking for help in dealing with a major system problem, the system administrator must be ready to provide a collection of SEER reports from which the Northern Telecom support staff can determine the history of the problem. From these reports, maintenance personnel will be able to diagnose the problem effectively.

SEERs are printed and stored on the system disk at the time of the error or event. The SEERs stored on disk can be viewed or printed at a later time. A sample SEER is shown in Figure 1-2.

Each SEER is identified by a number consisting of two parts:

1 Report Class, which classifies a particular software component

2 Report number, which identifies a particular report for a class

For example, SEER 6603 is report 03 from class 66.

Note 1: Due to ongoing improvements in the software, there may be instances where the information on the SEER itself is different from the information presented in the SEER manual (this document). Should this occur, the information in the SEER printed out by your system should take precedence.

Note 2: Some SEERs have not yet been categorized and may be printed regardless of their severity. Further refinements to the categorization process will be made in subsequent releases of Meridian Mail software. SEERs that are not categorized are treated as minor errors.

Changing SEER filtering level

Meridian Mail systems are capable of "filtering" SEERs so that only those relevant to the viewer of the SEERs are displayed. See "SEER filtering" in this chapter for details.

Only Northern Telecom support personnel can make changes to the SEER filtering level. Call Northern Telecom support if you wish to change your SEER filtering level.

To change the level, refer to the SE_UTIL chapter in the *System Administration Utilities* (NTP 555-7001-306).

SEER report format

SEERs are displayed in the following format. Refer to Figure 1-1. Five SEER classes (classes 11, 14, 25, 59 and 66) have been enhanced to include a maintenance action.

Figure 1-1
SEER printout/display format

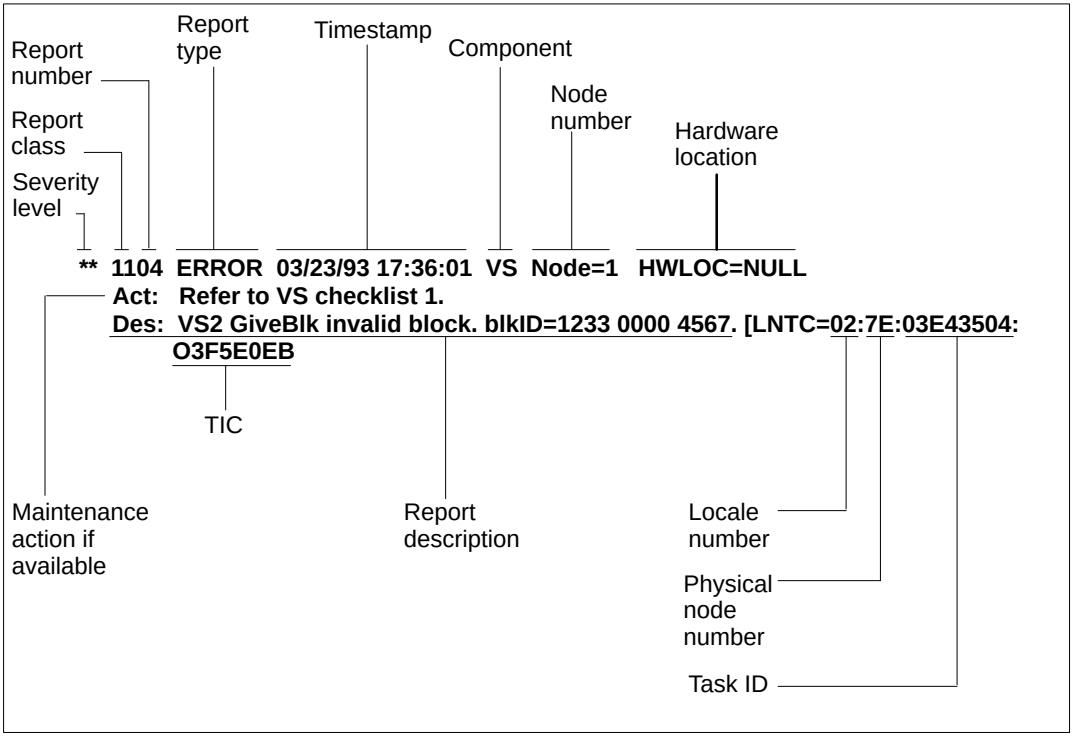
[severity] [class] [report #] [report type] [timestamp] [component] [node number] [hardware location]

[maintenance action if available]

[description of report with optional return code] [locale number] [optional customer ID] [physical node number] [task ID] [TIC]

Figure 1-2 shows a typical SEER with a maintenance action category.

Figure 1-2
Parts of a SEER



In reference to Figure 1-2, the Maintenance action of VS checklist 1 is documented in the “Maintenance Actions” section as follows:

1 Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.

2 Check for any following SEERs with rc=1104. If there are any such SEERs, then identify the problem mailbox(es) provided in these SEERs. If no mailbox is obtained then run an audit, and identify the mailbox(es) from the audit SEERs.

3 If two or fewer mailboxes were flagged by the audit, or identified in SEERs, then delete these mailboxes and re-execute audit.

4 Restore from backup.

A SEER generally contains the following pieces of information:

- Severity level
- Report class
- Report number
- Report type
- Timestamp*
- Component name*
- Node number*
- Hardware location*
- Maintenance action (for a limited set of report classes)
- Report description
- Locale number*
- Task id*
- TIC (Time in Centiseconds)*

***** indicates a piece of information that is unlikely to be of immediate use to a system administrator, but may be requested by Northern Telecom support.

Severity level

To help you judge how serious a system problem might be, SEERs have been classified according to various severity levels. These classifications are based on the impact of the operation that has failed. When using the SEER severity classification, you can therefore filter out all but the most severe problems in order to deal with them quickly. As a further source of

information about severity levels, see the section in this chapter entitled ‘SEER filtering’ for different SEER severity levels.

The following is a list of severity levels that may appear in the printed SEER:

- INF This is an information SEER.
- * This indicates a minor problem.
- ** This indicates a major problem.
- *** This indicates a critical problem.
- OFF This indicates that an alarm has been turned off.

Report class

The report class is a group of SEER reports pertaining to a particular component. There are over 70 report classes, each one pertaining to a particular software component. For example, SEER class 22 reports deal with the Voice Messaging software component. Refer to Table 1-1 for a listing of the components and their class numbers.

This manual devotes a chapter to each class. The overview page of each chapter defines the function of the software component and the impact (if any) that errors in the component have on the system. For example, volume server (Class 11) errors can prevent access to accounts on the volume associated with the volume server.

SEERs of different classes may contain slightly different format and different parameters, as described in the overview page for each class. For example, Class 24 SEERs contains locale and channel numbers, and the overview page explains how the channels are numbered.

> ***Note:*** SEER class 99 does not exist. However, a SEER with class 99 and report 99 is produced whenever a software component attempts to use an invalid SEER class. See “SEER 9999” on page 16 for details.

Report number

Each class contains up to 99 reports. Depending on the problem, reports may generate one of several messages. For example, Class 56, Report 36, generates 13 different messages.

This number ranges from 0 to 99 and represents a particular report for a particular class. For example, Report Number 01 in Class 20 concerns an integrity error in the Voice Handler.

Report type

The report identifies the support personnel who should investigate the report. The following report types are supported:

- ERROR Error-level SEER
- ADMIN Administrative-level SEER
- SYSTEM System-level SEER
- DEBUG Debugging SEER
- CRIALRM A SEER which turns off the critical alarm
- MAJALRM A SEER which turns off the major alarm
- MINALRM A SEER which turns off the minor alarm.

See subsequent subsection “SEER filtering” for more details.

Timestamp

The timestamp (date and time, in the form dd/mm/yy hh:mm:ss) indicates when the event or error occurred. It indicates either the Meridian 1 time sent to the Meridian Mail system via the AML/ISDN Applications Protocol Link (Meridian 1 systems) or the time generated by the RSM card (DMS/SL-100 systems).

Component name

Each class is represented by a component name and a class number. The component name is identified by an acronym (class string ID) that is used in the SEER report format. Refer to Table 1-1 for a list of all component acronyms that comprise the SEERs for Meridian Mail 10 CPE product, and their corresponding descriptions.

Table 1-1
Identification of component names

Class string ID	Description	Class number
AD	Administration base	30
AML	Application module link	25
AS	Admin server	94
ATA	Analog transfer agent	37
BURP	Backup and restore program	15
CCA	Centralized call answering	56
CM	Cabinet access method	12
DC	Diagnostic control	48
DB	Debugger	65
DD	Disk data interface	10
DEEH	David ESDI emulation handler	68
DM	Disk manager	66
DNU	Delivery to non-users	92
DR	Directory server	31
DT	Dialing translation	115
FD	Front desk console	72
FH	Fax handler	81
FIM	Fax item maintenance service	83
FM	Forms manager	43
FP	Fax printing	85
FS tools	File server Pascal utilities	19
FX	Fax ASCII translation	82
GTI	Generic telephony interface	28
HAS	Hospitality administration server	70
HD	Hardware database	39
IS_NAMES	IS_NAMES	80
MA	Maintenance administrator	61
MCA	Multimedia outcalling agent	84

Table 1-1
Identification of component names

Class string ID	Description	Class number
MI	MI server and interface	14
MS	Man Machine Interface server	40
MTA	Message transfer agent	32
MWI	Message waiting indicator audit	91
NA	Network administration	108
NMTA	Network message transfer agent	36
OCA	Outcalling agent	110
OCS	Outcalling server	90
OFS	Open file server	13
OM	Operational measurements	33
OSP	Operating system program	64
OTA	Open access transfer agent	42
PLH	PMS link handler	71
PP	Peripheral processor	26
PRM	Program resource manager	60
RA	Remote activation	107
RBD	Utility card (NT6P03 / NT6P42) Diagnostics	54
RN	Remote notification	93
RR	Restore and recovery	112
RSM	RS-232 service module	63
RVS	Remote voice services	109
SD_Tools	SCSI Driver Utilities	67
SMDI	Simplified message desk interface	38
SS	SEER server	35
SYSOP	System operation	16
SYSOP	System operation	17
SYSOP	System operation	100
TC	Toolkit communications	52

Table 1-1
Identification of component names

Class string ID	Description	Class number
TD	Thru-dialing	106
TP	Tape driver	59
TK	Voice toolkit	51
TKM	Toolkit master	50
UI	User interface (101)	101
UI	User interface (102)	102
UI	User interface (103)	103
VCA	Voice channel allocator	34
VCM	Voice channel maintenance	41
VFSU	Voice forms service unit	111
VH	Voice handler	20
VLS	Voiceless Server	58
VM	Voice messaging	22
VMU	Voice menus, Announcements, Time-of-day services, and Fax information service	104
VPD	Voice processor diagnostics	53
VPH	Voice processor handler	24
VPM	Voice prompt maintenance	107
VS	Volume server	11
VSA	Voice services administration	105
VSA	Voice service administration conversion utilities	55
VSS	Voice base service shell	27
VX	Voice prompt	21
—end—		

Node number

Node number indicates the node where the program reporting the SEER is running. This is not necessarily the node where the problem occurred.

Hardware location

The hardware location (if applicable) identifies the hardware, such as a voice processor card, affected by the problem. A hardware location of "NULL" means either that the problem is not isolated to a single node, or that the software that prints the SEER does not have access to the location.

A non-NULL hardware location consists of up to five digits separated by dashes:

`s–n–c–d–p`

where
- s is always 0
- n is the node, from 1 to 5
- c is the card – see Tables 2 to 4 below
- d is a dataport, or is the DSP on a voice processor card
- p is the port belonging to the DSP, if 'd' is a DSP

The SEER prints only as much of the hardware location as is relevant to the problem. For example, a problem with a card other than a voice processor does not have a digit to identify the DSP or port. A problem that affects an entire node has only the initial zero and the node number.

Table 1-2
Hardware locations – Modular Option and Modular Option GP

Card number printed on SEER	Refers to the card in slot
1	SCSI
2	HABC/MEM2
3	ESBC
4	MEM1
5	leftmost VP/GSP
6	second VP/GSP
7	third VP/GSP
8	VP/RSM

Example: 0–2–6–3 refers to node 2, second voice processor card (card 6), third DSP.

Table 1-3
Hardware locations – unshadowed EC

Node number	Card number printed on SEER	Refers to the card in slot numbered:	Card type
1 or 4	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	6	5	Util
	7	6	68K
2 or 5	**1**	7 (Z0)	68K
	2	8 (Z1)	NVP
	3	9 (Z2)	NVP
	4	10 (Z3)	NVP
	5	11 (Z4)	NVP
3	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	5	4	68K

Example: 0–2–4–1–2 refers to node 2, third voice processor card (card 4), first DSP, second port.

Table 1-4
Hardware locations – shadowed EC

Node number	Card number printed on SEER	Refers to the card in slot numbered:	Card type
1, 3 or 5	**1**	0	NVP
	2	1	NVP
	3	2	NVP
	4	3	NVP
	6	5	Util
	7	6	68K
2 or 4	**1**	7 (Z0)	68K
	2	8 (Z1)	NVP
	3	9 (Z2)	NVP
	4	10 (Z3)	NVP
	5	11 (Z4)	NVP

Example: 0–3–4–1–2 refers to node 3, fourth voice processor card (card 4), first DSP, second port.

Maintenance action

The maintenance action is a text string specifying an action towards correcting the problem (if any) reported by the SEER. This string is currently supported for the following classes of SEERs:

- 11 (Volume server)
- 14 (MI server and interface)
- 25 (Application Module Link)
- 59 (Tape driver)
- 66 (Disk manager)

Refer to the individual SEER description for details on the maintenance action string.

Report description

This is a short description of the problem. Abbreviations and codes are used in the message because of space limitations.

Return codes

The description may contain a return code:

```
Example:    **      xxyy ..........
            Des:    system error .... RC=9999
```

The “9999” is an error code returned from lower level software to a higher or calling program. The higher level software generates a SEER containing the lower level return code. For example, when the Voice Processor Handler (Class 24) encounters an error, it passes a return code to the Voice Base Service Shell (Class 27) which produces a SEER.

Appendix A lists all Meridian Mail return codes. The description beside the return code may help you to isolate the problem.

Locale number

This number ranges from 0 to 99 and represents the area in memory in which the program was running. SEERs from the same locale and same node occurring within a short period of time are probably related.

Task ID

This number is the Task ID of the task that issued the SEER.

TIC

TIC is the time in centiseconds between the production of the SEER and the last reboot of Meridian Mail. However, due to the accuracy of the timestamp, the TIC is rarely used.

SEER descriptions

A SEER description contains the *Type* and *Severity* of each SEER, a *Cause* for the SEER, the *Impact* that an error may have on the rest of the Meridian Mail System, and the *Action* to be taken to correct an error. Many times, the *Action* is to look up the return code to determine the underlying cause. For NT support personnel only, the SEER report has a category of *NT* following *Action.* In this case, NT support personnel should follow the action specified under *NT.* If, however, the SEER report does not have an *NT* category, then the task stated under the *Action* category should act as your reference to correct a situation. In most cases, *NT* is different than the action that customers are to follow, described under the *Action* category. Figure 1-3 shows a sample SEER description.

Figure 1-3
Sample SEER description

Class 14

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Type: Error
Severity: Critical
Cause: The internal MI–table is corrupted.
Impact: All disk access for that node is unreliable.
Action: Try to re-initialize the disk again (Warning: all previous data stored on the disk will be lost). If the problem persists, contact your NT support organization.
NT: The disk may be bad or not initialized. Run disk diagnostic.

SEERs history report

SEERs history reports may be displayed using the System Event and Error Reports screen. See the “System status and maintenance” chapter of your system administration guide. Figure 1-4 shows the format of a SEER history report.

Figure 1-4
SEER history report

```
ABC Company                    System Status and Maintenance


  SEER Period from 9/25/93 01:00 to End of SEER data.

  Error  Date Time    Type    Severity Node   Location, Action, Description

  40– 6  9/26 04:00   System    Inf     1    Null
Des:     ms_Server: Bill Table Audit Successfully. 0
  11–50  9/26 04:04   Debug     Inf     1    Null
Act:     Close the file opened by the client specified in the SEER.
Des:     VS1 Stale File Version: root=416 Read Client RTId=7E00 0000 100E 3D11
  11–50  9/26 04:20   Debug     Inf     1    Null
Act:     Close the file opened by the client specified in the SEER.
Des:     VS1 Stale File Version: root=416 Read Client RTId=7E00 0000 100E 3D11
  33–60  9/26 04:30   System    Inf     1    Null
Des:     OM Collection Started
  33–60  9/26 04:30   System    Inf     1    Null
Des:     OM Usage Info Collected for 25/09/93 0
  11–50  9/26 04:36   Debug     Inf     1    Null
Act:     Close the file opened by the client specified in the SEER.
Des:     VS1 Stale File Version: root=416 Read Client RTId=7E00 0000 100E 3D11

  Select a softkey>

    Exit                                          Next Page*
```

* Appears when the information fills more than one screen.

Analyzing SEERs

If you are not familiar with the parameters in the SEER's class, read the overview pages to learn how to decipher the numbers in the SEER report.

Often a SEER is preceded by a related SEER from lower level software. The related SEER may have the same return code, same locale and similar time or the same parameter, such as mailbox number. If recommended, look for related SEERs. (Usually the first SEER is the cause of the problem.)

Example 1

If you try to add a directory entry to a full volume, a directory error will occur and a SEER will be generated. The SEER will be numbered 3116 (31 in the Report Class field and 16 in the Report number field) with a return code of 1103 (rc=1103 appears in the return code field). The Report class number indicates that something has happened to the Directory Server software component, and the return code indicates that the Volume Server has been affected. You can discover this information by finding the description of the SEER in this NTP and by looking up the return code in the appendix.

By analyzing the return code first, you will discover that the volume is full. Free up space on the volume to add the directory entry.

In this example, the Directory server is called the volume server. The volume server failed to perform a particular function, so it passed a return code back to the Directory Server. The Directory Server issued a SEER and provided the volume server's return code.

Example 2

SEER 2230 means that the Voice Messaging component failed to close a message. As the manual will explain, this SEER is preceded by other SEERS that have the same mailbox number or return code. By working with the various pieces of information in the SEER reports and following the actions recommended in this Maintenance Messages manuals, and by following its logical path, you will be able to resolve problems more quickly.

SEER 9999

Whenever a software component attempts to use an invalid SEER class, Meridian Mail prints the SEER using in dummy class 99. The SEER is printed exactly as it would have been if the class had been correct *except that* the class and report are changed to 9999 and the following is added before the original SEER description:

*** Invalid SEER # *nnnn* received ***

SEER throttling

One root cause event may trigger the generation of many SEERs. For instance, disabling a node and causing its disk to disappear will create SEERs from any other node attempting to access that disk. To reduce SEER proliferation, the system has the capability of acting as a throttle for the SEERs. In other words, it controls their output. SEER throttling monitors SEERs and stops printing a specific SEER type if too many of that type are generated within a given interval. SEER throttling will also control the type of SEERs captured in the Meridian 1 log system.

When SEER throttling is invoked, a SEER is generated to alert users of that action. All SEERs are still captured in the SEER log; however, it is only the printing of them that is inhibited.

Three SEERs are associated with a throttle sequence:

<<Start of throttle>> – the SEER specifies the node number on which the SEER has occurred.

<<Add to throttle>> – the SEER is printed if a throttled SEER occurs for the first time on a node. The node number is specified in the SEER.

<<End of throttle>> – the SEER is printed when the throttle has expired. A list of node numbers and number of occurrences on each node is specified in the SEER.

SEER throttling will “timeout” after an interval and allow the system to continue to print the prohibited SEER type. If the original error condition still exists, another spurt of SEERs will be printed prior to setting throttling again. This provides you with an ongoing monitor of the error situation.

SEER filtering

Meridian Mail systems are capable of “filtering” SEERs so that only those relevant to the viewer of the SEERs are displayed.

SEER filtering allows the total number of SEERs being presented on a system to be minimized to those requiring the administrator's attention, which should reduce the effort required to process them. This allows the administrator to concentrate on those SEERs which are important and which may indicate system trouble.

SEER filtering types

SEER filtering is adjustable, depending on the user and the use of the SEERs. The SEER filtering on a particular system can be set to one of four values through the use of a special utility (SE_UTIL) which is available to the Meridian Mail craftsperson. The values are as follows:

1 ***ERROR***—Error-level SEERs are those which may indicate a system problem, to be corrected by the administrator, possibly with the assistance of technical support. Examples of Error-level SEERs include: hardware errors; software errors; and indications that a hardware error may develop. Error-level SEERs use one of the Critical, Major, Minor, or Info *Severity* levels described in the following section.

2 ***ADMIN***—Administration-level SEERs are those which indicate system problems or configuration difficulties that are likely to be handled by the system administrator without external assistance (for example, a non-Meridian Mail user whose calls are forwarded to the Meridian Mail system). When the filtering level is set to Admin, the Error-level SEERs are also printed. Admin–level SEERs use one of the Critical, Major, Minor, or Info *Severity* levels described in the following section.

3 ***SYSTEM***—System-level SEERs are those which indicate normal system behaviour, and others which do not require action (for example, nightly audits by the various sub-systems of Meridian Mail). When the filtering level is set to System, the Error- and Admin-level SEERs are also printed. System-level SEERs are for information only and use the Info *Severity* level described in the following section.

4 ***DEBUG***—Debug-level SEERs are those which provide detailed information on low-level system behaviour, for further analysis when a system problem is suspected. When the filtering level is set to Debug, *all* SEERs (including those for all other levels) are printed. Debug–level SEERs are for information only and use the Info *Severity* level described in the following section.

Regardless of the SEER filtering level, all SEERs are stored in the SEER file for as long as possible. This allows a technician who is alerted to a possible problem by an Error-level SEER to look back at any System-level SEERs that were also generated at that time but which were not printed or displayed for the administrator.

SEER severity levels

The Error and Admin-level SEERs can use any one of the four levels of severity, that is, *Critical, Major, Minor* or *Info.* However, the System and Debug filtering levels only use the *Info* severity level.

The four levels of severity are defined as follows:

Critical: Any service-affecting problem subject to the following:

- turns on critical alarm relay if on a Modular Option EC platform, or maps alarm to major (RSM)
- requires immediate attention by the administrator or technician
- a dropped call is not treated as critical
- "non-essential" services are not treated as critical

Examples of critical faults include major base feature not operating, system reboot, or any software configuration problem.

Major: Any service-threatening problem

- turns on major alarm relay if available
- does not require immediate attention but requires work soon, from either the administrator or technician. Major problems should be cleared within 24 hours.

Examples of major faults include an unrecovered hardware fault to a non-critical component such as a tape drive or voice card; volume nearly full; a recovered fault to a critical component; and excessive minor problems.

Minor: Problems with no impact to the system or users.

- no immediate attention required
- fault can exist for some time
- turns on minor alarm relay if available

Info: Normal event worthy of logging.

- does not turn on alarm

Four types of *Info* messages are defined:

- System Info: event expected to occur
- Error Info: event not expected to occur
- Admin Info: information for administrator
- Debug Info: information for designer

Normal operation

The default SEER filtering level (which is recommended for normal operation) is SYSTEM.

System-level SEERs are those which indicate normal system behaviour, and others which do not require action (for example, nightly audits by the various sub-systems of Meridian Mail). When the filtering level is set to SYSTEM, the ERROR- and ADMIN-level SEERs are also printed.

Special circumstances

The ADMIN level of filtering is designed to allow the administrator to concentrate on those SEERs which are important, and not overload the administrator with informational SEERs. This will eliminate the nightly audit SEERs, and others which do not require the attention of the typical system administrator.

During any system debugging or analysis by a technician, the SEER filtering level is set to SYSTEM or DEBUG, so that the normal operation of the system can be verified. The SEER filtering level is automatically set to SYSTEM.

When a Meridian Mail system's user configuration and day-to-day maintenance is being done by a third-party administrator, the SEER filtering level can be set to ERROR. This would allow any potentially urgent error-indicating SEERs to be displayed at the customer's site, so that the customer is able to bring the problem to the attention of the administrator. The administrator could reset the filtering level to ADMIN when using the system in order to check for less urgent problems.

> ***Note:*** When system options procedures are run, the SEER filtering level will be reset to the default SYSTEM level. Ask the Regional Support Center (RSC) technician to reset the SEER filtering level to its original state after the procedures have been run, if the level is other than SYSTEM.

Maintenance actions

Introduction

The Maintenance Actions chapter of the SEER manual has been introduced to make the SEER documentation more immediately useable by its intended audience, the craftsperson.

In the other chapters of the manual errors are listed by report number within class, and the focus is on cause and effect—the system designer perspective.

In this chapter errors are listed by reference to the action needed to correct them, regardless of SEER class. The focus is on solutions to problems—the craftsperson perspective.

How to use this section

The special maintenance action SEERS for use with this chapter have a line of information which regular SEERs do not have: the Act line. Occurring between the first SEER statistics line containing the SEER class and report and the description line, the Act line points to an entry in the “Primary maintenance actions” table. For more information on SEER format, refer to the Introduction to this document.

When a SEER with an Act line occurs you have a choice. Since SEER class and report number print just like any other SEER you can treat this SEER like any other, and look up the report in the chapter belonging to the class. However, you can choose to go more directly to the solution.

Entries in the Primary maintenance actions table are of three types:

- Those with no further information. The entry consists of a straightforward action. Perform the action.

- Those with further information, but no reference to a checklist. Read the further information. Sometimes it provides more detailed instructions. In other instances it gives background information to make it easier to interpret and act on the action on the Act line.
- Those with a reference to a checklist, with or without further information. Read the further information, if any. Go to the indicated checklist in the “Maintenance action checklists” section, and follow the steps in the checklist.

Applicability of this chapter

This chapter applies only to the following SEER classes:

- 11 Volume Server (VS)
- 14 MI Server and Interface (MI)
- 25 Application Module Link (AML)
- 59 Tape Driver (TP)
- 66 Disk Manager (DM).

Primary maintenance actions

Table 2-1
Primary maintenance actions

"SEER action text" Explanation and error recovery procedure
"Call your NT support organization" Be prepared to supply the following information: • The hardware platform you are running on. • The software release you are using, and any patches you have applied. • A concise description of the problem. • The SEER numbers and text of the messages that first appeared. • What steps you have taken to fix the problem. • The SEER numbers and text of the messages that appeared during your attempts to fix the problem.
"Check for SEER(s) of the following class: *nn*" Check for a SEER report of class *nn* immediately prior to this SEER. Follow the instructions listed for that SEER report. If this does not solve the problem, check for the preceding SEER reports of class *nn* and follow their instructions.
"Check the validity of the client specified in the SEER"
"Check the validity of the file specified in the SEER"
"Close the file opened by the client specified in the SEER"
"Delete some unneeded files on the volume" If this report applies to a user volume, try deleting old message files.
"Disable, then reenable node noted in HWLOC"

Table 2-1
Primary maintenance actions (continued)

“SEER action text” Explanation and error recovery procedure
“Ensure that the disk being used has valid data”
“Follow disk cleanup procedure”
“Follow documented NTP procedures when replacing disks”
“Move some users to another volume”
“No action is necessary” The message is for information only. No action is required.
“None. The system will/has recover” The system has just recovered from an unexpected operation. No action is required. If the system is generating these on more than a daily basis, call your support organization.
“Potential system overload. Expand the system.” A timeout has occurred and system has recovered. No immediate action is needed. Review system engineering with your support organization if SEER is repeated.
“Reboot system” Courtesy down and reboot the system. Observe the bootup process for diagnostic results. If problems persists, call your NT support organization.
“Refer to DM Basic checklist” The DM basic checklist is found in table 2-2.
“Refer to DM Disk error checklist” The SEER description line is formatted as: `disk # > sense key: # error code: # [block: #].` Use the sense key to select the correct procedure in the checklist. See the DM disk error checklist in table 2-3.
“Refer to DM Driver error checklist” See the DM driver error checklist in table 2-4.

Table 2-1
Primary maintenance actions (continued)

"SEER action text" Explanation and error recovery procedure
"Refer to DM Sync failure checklist" The SEER description line is formatted as: `Sync failed. RC = #` Use the return code (RC) to select the correct procedure in the checklist. See the DM disk error checklist in table 2-5.
"Refer to Tape Error checklist" The SEER description line is formatted as: `Tape # > sense key: # [FM] [EOM].` Use the sense key to select the correct procedure in the checklist. See the Tape error checklist in table 2-6.
"Refer to the following AML checklist items: *j, k, l, m*" The system is reporting a problem with the AML link. (The AML checklist contains the troubleshooting tree for all AML relate problems, including switch, switch hardware, switch datafill, cabling, MMail hardware and MMail datafill.) See the AML checklist in table 2-14.
"Refer to the MI checklist" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See the MI checklist in table 2-7.
"Refer to the Tasking Error checklist" See the Tasking error checklist in table 2-13.
"Refer to the VS checklist 1" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 1 in table 2-8.
"Refer to the VS checklist 2" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 2 in table 2-9.

Table 2-1
Primary maintenance actions (continued)

"SEER action text" Explanation and error recovery procedure
"Refer to the VS checklist 3" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 3 in table 2-10.
"Refer to the VS checklist 4" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 4 in table 2-11.
"Refer to the VS checklist 5" **Warning:** Do not back up over the previous backup since the information on the disk may be corrupted. See VS checklist 5 in table 2-12.
"Replace the indicated SCSI drive" Replace the drive identified in the SEER report. Follow NTP documented procedures when replacing disk drives.
"Restore the node from backup tapes" Restore from tape the volume on the node indicated by the SEER report.
"Run a VS audit to clean up the specified volume" Run the VS audit. If this does not fix the problem, follow the maintenance actions for the SEER reports produced.
"Sync the shadowed disk"
"Terminate unneeded tasks or unload overlays to reclaim memory"
—end—

Maintenance action checklists

Table 2-2
DM basic checklist

The information for this checklist is taken from the *Common disk subsystem problems* chapter of the relevant *Installation and Maintenance Guide* (NTP 555–70x1–250). For the Options platform, see the *Maintenance Guide* (NTP 555–7011–500). More detailed information is found there.
1 Ensure that the SCSI bus is securely connected to all SCSI devices and cards. 2 Ensure that the SCSI bus is terminated at both ends, and that there are no intermediate terminating resistors. 3 Ensure that the relevant power converters are properly installed and that the lights on their front panels remain solidly lit. 4 On all node perform a quick sanity check of the SCSI bus: • Power on all hardware in the node. • On node 1 also put a tape in the tape drive. As power is applied, the disk light should come on briefly and go off. It should not remain solidly lit. On node 1, the tape drive should make a series of clicking noises as it tries to load the tape.

Table 2-3
DM disk error checklist

The SEER description line is formatted as:
`disk # > sense key: # error code: # [block: #].`
Use the sense key number to select the correct procedure below.

Sense Key	Meaning	Action
1	Recovered error	If a large number of SEER reports occur with this sense code, replace the disk indicated.
2	Not ready	If this sense code occurs in normal operation, replace the disk indicated.
3	Medium error	Replace the disk indicated.
4	Hardware error	Replace the disk indicated.
5	Illegal request	Contact your NT support organization.
6	Unit attention	If a large number of SEER reports occur with this sense code, follow the DM driver error checklist. See table 2-4.
7	Write protected	Remove write protect jumper from disk.

If the action above does not correct the problem, follow the DM driver error checklist. See table 2-4.

Table 2-4
DM driver error checklist

On all platforms

1 Follow the DM basic checklist. See table 2-2.

2 If driver error 129 occurs, ensure that all disks are jumpered to the correct SCSI ID. See the appropriate installation guide.

On MSM platforms

1 Follow the SCSI bus cable from one 68K transition module, to the disk drive pack, to the other transition module. See the appropriate installation guide.

2 Use a continuity tester to check that the fuses at positions F6 and F7 of the 68K transition module are not blown.

On EC platforms

1 Ensure that DIP switches SW1 – SW4 on the backplane are set correctly. See the appropriate installation guide.

On Modular Option and Modular Option GP platforms

1 If driver error 129 occurs and the backplane stiffener is not installed, install it.

2 If 5.25” drives are being used, and the voltage regulator at position U5 on the DC CEPS circuit board is an LM340AT, replace the CEPS with one that has an L7805ACV regulator.

If a SCSI/RAM board is being used

1 If the message “bus 0 hung => bus reset” always appears when a node is being booted, replace the SCSI/RAM board.

2 If driver errors appear during peak system loading, or if disk sync fails with a return code of 6713, replace the SCSI/RAM board.

If the disk drive is a Seagate ST1480N

1 Remove the terminators. If the original problem disappears, the terminators that came with the drive are incorrect and should be replaced with 220/330 Ohm ones.

Table 2-5
DM sync failure checklist

The SEER description line is formatted as:
`Sync failed. RC = #.`
Use the return code (RC) number to select the correct procedure below.

RC #	Action
6700	If this RC occurs when syncing online, try the following: • unload unnecessary utilities • use a smaller transfer size
6710	Often has an associated 6605/6606 SEER. Follow the actions specified for these SEERs.
6711	Check that the destination disk is writeable: 1 From scsi_util enter • select *x* • copy *x x* 0 0 where *x* is the SCSI ID identified in the SEER 2 Check that the disk is jumpered correctly.
6712	Call ETAS.
6713	Often has an associated 6605/6606 SEER. Certain early vintages of 3.5–inch disks cause RC 6713 when synced with sufficiently large transfer sizes. Examples are DSP3105 Rls T370 and ST11200N Rls 8240, 8334 1 Check that the SCSI bus is correctly terminated. 2 Check that the disks are at least at the minimum vintage.

Table 2-6
Tape error checklist

The SEER description line is formatted as:
`Tape # > sense key: #` [FM] [EOM].
Use the sense key number to select the correct procedure below.

Sense Key	Meaning	Cause/Action
0	Unexpected FM	If “FM” appears in the SEER, an unexpected filemark has been encountered. This is most likely due to supplying the ”$” argument to the tape server when the tape is actually non–bootable.
2	Not ready	Check that there is a cartridge in the tape drive and that the drive’s door latch is in the closed position.
3	Medium error	1. Clean tape drive head. 2. Retry opertation. 3. Replace tape if problem persists.
4	Hardware error	1. Check the cartridge to see if the tape has snapped. 2. If not, replace tape drive.
6	Unit attention	This sense key comes up after cartridge insertion/removal or a SCSI bus reset. If you have not just inserted or removed a tape, look for termination/cabling problems. If none are found, contact NT.
7	Write protected	1. Turn the write protect tab away from the “SAFE” position. 2. Viper 2150 tape drives cannot write to DC300XLP cartridges.
8	Blank check	1. Replace tape and retry. 2. If problem persists, replace tape drive.

Table 2-7
MI checklist

Warning: Do not back up over the previous backup since the information on the disk may be corrupted.
For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Check for class 66 SEERs and follow the maintenance actions suggested there.
2 Run diagnostics on the problem node. In the case of non–classic systems, specify full memory test.
3 For “non–classic” systems, replace the SCSI–RAM card.
4 Replace SCSI cabling.
5 Replace the SBC or 68k card.
6 For “classic” systems, replace the SBC transition module.

Table 2-8
VS checklist 1

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
2 Check for any following SEERs with rc=1104. If there are any such SEERs then identify the mailboxes provided in these SEERs. If no mailbox is obtained then run an audit and identify the mailboxes from the audit SEERs.
3 If two or fewer mailboxes were flagged by the audit, or identified in SEERs, then delete these mailboxes and re–execute audit.
4 Restore from backup.

Table 2-9
VS checklist 2

	For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1	Obtain the volume ID from the SEER.
2	Go to volume admin on the MMI and check if the volume ID obtained exists in this list.
3	If the volume ID exists then go to the Node Status Screen on the MMI and verify and put all nodes InService. If all nodes are InService and the problem still exists then check for class 60 SEERs and follow the maintenance actions suggested there.
4	Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.

Table 2-10
VS checklist 3

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Go to the node status screen of the MMI and verify that all nodes are InService. If a node is out of service, put it InService.
2 Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
3 FOR MSM & SPM systems: Follow the procedure documented in chapter 8, “Disks”, of the Trouble Locating and Alarm–Clearing Procedures NTP 297–7001–503. For non–MSM/SPM systems: Follow the procedure documented in chapter 4, “Common disk subsystem problems“, of the Maintenance Guide NTP 555–70x1–500.
4 Run diagnostics on the problem node. In the case of non–SPM/MSM systems, specify fully memory test.
5 For non–SPM/MSM systems, replace the SCSI–RAM card.
6 Replace SCSI cabling.
7 Replace the SBC or 68k card.
8 For SPM and MSM systems, replace the SBC transition module.

Table 2-11
VS checklist 4

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Check for class 14 and 66 SEERs and follow the maintenance actions suggested there.
2 Run an audit on the system.

Table 2-12
VS checklist 5

For the following checklist, start at step 1 and proceed to the next step only if the current step does not fix the problem. Follow documented NTP procedures when replacing hardware.
1 Follow VS checklist 3. See table 2-10.
2 Restore the node from the backup tape.

Table 2-13
Tasking error checklist

A tasking error occurs when two tasks/programs have problems communicating with each other. Some typical causes of tasking errors are: – overload – not all nodes in the system are in service – a task/program crashes or dies – a software defect The system will self–recover from many of these. If possible, retry the operation that resulted in the error. If the problem persists, then follow the steps below. Proceed to the next step only if the current step does not fix the problem. ***Note***: Some of the following steps assume the user knows which node the problem task is running on. If you do not know , then proceed to the next step.
1 Verify that all configured nodes on the system are InService, especially the node(s) involved in the error (that is, the nodes on which the originating and terminating tasks reside.
2 Disable and re–enable the node on which the originating task resides.
3 Disable and re–enable the node on which the terminating task resides.
4 If the system is not in use or is unusable, try rebooting the system.

Table 2-14
AML checklist

Depending on the nature of the problem, the maintenance action message pointing to the AML checklist specifies one or more AML checklist items to be followed. The SEER action line is formatted as: "Refer to the following AML checklist items: *j, k, l, m*" for example, "Refer to the following AML checklist items: 2,4" Perform the specified items in sequence. Proceed to the next item only if the current item does not fix the problem.	
1	***Check the physical connections of the AML link.***
a	Verify the cable is securely attached at both ends.
b	Verify the wires are properly soldered or crimped to the cable connectors.
c	Verify the link cable is less than 50 feet long, otherwise a modem is required.
d	Bypass intra–cabinet cabling using a full 25–pin straight–through RS232 cable between the ESBC card AML port and the Meridian 1 QPC513 ESDI port, to determine if the problem is related to intra–cabinet cables.
2	***Check the ESDI card and related datafill on the Meridian 1.***
a	Check the name label of the ESDI card. Ensure the card is of vintage H or higher.
b	Ensure the ESDI card switches are set as per the appropriate Installation Procedures.
c	Check the datafill of the ESDI port for the AML link in the Configuration Record, for example, T1, T2, T3, K, port option. Data should be set as per the appropriate Installation Procedures. The port should be enabled.
d	Ensure the Meridian 1 has the correct ROM cards and software options as per the appropriate Site and Installation Planning Guide.
e	Verify that a sufficient number of call registers are configured to support the number of call registers assigned to AML messaging in the parameters CSQI and CSQO, as per the Meridian 1 NTPs.
f	Verify that the Configuration Record and the Meridian Mail ACD queue have the same VASID for the ESDI port used for the AML link.

Table 2-14
AML checklist (continued)

	g If numerous Input/Output (SDI) ports are used on the Meridian 1, ensure that the CDR port is operating at the recommended baud rate. Refer to the Meridian 1 NTPs for proper engineering.
	h Run a self–test of the ESDI card, and replace the card if it fails. If tested OK, disable the card, then use the ACMS command to enable the link.
3	***Verify that the system was properly administered***
	a Ensure the system (Meridian 1 and Meridian Mail) power and grounding comply with the NTPs. Ground loops can contribute to intermittent problems.
	b Ensure the Meridian 1 is initialized whenever changing values for call registers or assigning a new network loop for Meridian Mail.
	c Program Meridian 1 traffic to capture TFS008 reports. Examine reports for End–of–block errors. If errors are reported, replace the ESDI card with one of H vintage or higher.
4	***If the system is not running the latest release of software, verify that the required patches, if any, are installed on the Meridian 1 and Meridian Mail.***
5	***Check the datafill on Meridian Mail:***
	For report 2502 – Check the Channel Allocation Table and correct the channel DN as required.
	For report 2522 – Verify that the Notification DN is defined correctly for the user. Also check the RC on the SEER to determine the reason for failure: 1 = Failure/error on D channel between NMS locations 2 = Invalid DN 3 = Remote switch not NMS

Table 2-14
AML checklist (continued)

	For other reports – Call NT support to verify the hardware database is set up properly, for example, the voice ports are set up correctly as per the appropriate System Installation and Modification Guide.
6	***Reboot the system and run diagnostics on the memory cards. If the problem persists, refer to the appropriate Maintenance Guide for card replacement procedures.***
7	***Set the time of day on the Meridian 1 using Overlay 2.***

Class 11 Volume Server (VS)

Introduction

A volume is a subdivision of a disk consisting of two “sub-volumes”; one for text, one for voice data. A volume is identified by an integer. Each volume has its own volume server which:

- allows access to the volume by application programs (“clients”)
- controls concurrent access to files on the volume
- manages a list of free disk blocks for the volume
- keeps track of the amount of space used by each user
- performs garbage collection to remove expired messages
- Each volume server runs an audit every night to recover any disk blocks during the day. Normally blocks are lost only due to program restarts or other error conditions. SEERs mark the beginning and end of the audit. These are normal.

Most VS SEERs represent normal events such as audits or minor errors affecting single user operations. Serious errors can indicate either that the volume server is not running properly or that the volume is corrupted in some way—any or all accesses to the volume may fail. In the case of a user volume, this denies access to all mailboxes on that volume. In the case of the system volume (VS1), the entire system may become non-operational.

A class 11 SEER may contain:

- name of the volume server (for example, VS2)
- path of the problem file (that is, /volume/cabinet/file)
- lower level return code
- explanatory text
- hex data

Reports

1101 Minor Error

Cause: One of the following tasking errors can occur resulting in failed inter-task communication. If the text says:

1. "VSn:tasking error in VSProcs i", a client trying to communicate with volume server n encountered task error i. This may indicate that a volume server is not running, resulting in denial of service to some or all users. Normally a volume server will be restarted automatically.
2. "VSn:buffer problem sending to OFS 21", VSn could not inform an OFS of an update to a cached file due to inadequate buffers on the OFS. Clients may not see the update.
3. "VSn:send to update of OFS failed i", VSn could not inform an OFS of an update to a cached file due to taskresult. Clients may not see the update.

Impact: Depends on cause, see above.

Action: Case 1. If the volume server does not restart automatically, contact your NT support organization.

Cases 2-3. Redo the update. If it reoccurs, contact your NT support organization.

NT: In case 1 above, use PRM_CONTROL to ensure that the specified VS is running. Start it if necessary. Notify the development organization about chronic problems.

1103 Major/Critical Admin

Cause: The volume is almost full.

1. The text volume is almost full. It has reached 90 - 95 % (Major) or more than 95% (Critical) of its capacity.
2. The voice volume is almost full. It has reached 90% or more (Major) of its capacity.

Impact: Potential problem soon with increasing file sizes or adding files to the volume.

Action: Check that the nightly audit is functioning. Remove files on the volume in question. If the operation involved VS1, remove directory entries or OM files. The effect of corrective actions may be delayed until the night-audit is run, or you may choose to run the audit manually. All volumes tool in the *Administration Tools* (NTP 555-7001-305) may be used to free-up any deleted messages. Consider redistribution of users on multi-node systems, turning on automatic message deletion, or buying a storage upgrade.

NT: Use VSMUP to manually start an audit. Use MD to delete unnecessary files.

1104 Minor Error

Cause: A bad blockID has been passed to the VS. If the text says:

1. "VSn: vs_ReadBlock Bad BlockID", a client attempted to read an invalid block on volume n. May be a problem with the task issuing the SEER.
2. "VSn: Vs_WriteBlock Bad BlockID", a client attempted to write an invalid block on volume n. May be a problem with the task issuing the SEER.
3. "VSn:GiveBlk invalid block", then the VS noticed an invalid blockID when trying to free up a block.

Impact: May indicate a corrupted file. If so, subsequent accesses to that file may also fail. Impact to users depends what file it is.

Action: Look at previous SEERs to try to identify reason for corruption or identify the offending client program. If possible, remove the bad file. The problem could be the result of a hardware problem. Run hardware diagnostics. If the error persists, contact your NT support organization.

NT: If a corrupted file is suspected, remove it using MD. Serious corruption may require restore from backup. Notify the development organization if this occurs chronically.

1105 Major Error

Cause: The VS for a certain volume was not found. This could be because the VS is not running, or a FID has a bad volume ID or volume ID = 0.

Impact: The operation attempted by the user will fail until the problem is fixed.

Action: Ensure that the system is fully operational and all nodes are running. Look at locale number and remote TaskID parts of SEER to identify offending client program. If the problem persists, contact your NT support organization.

NT: Use PRM_CONTROL to ensure all volume servers are running. If file corruption is suspected, attempt to identify bad file and recreate it. Restore from backup if necessary. Notify the development organization if this occurs frequently.

1106 For information only Debug

Cause: Two clients tried to update the same file at the same time.

Impact: The second client will not be able to update the file until the first client is finished.

Action: Try the operation later. If the problem persists, disable and re-enable the nodes mentioned in the SEER.

NT: None

1107 Minor Error

Cause: The volume server has opened the maximum number of files for its volume.

Impact: No more files can be opened until some are closed.

Action: Problem is likely to be transient. If it persists, it may be cleared by disabling and re-enabling the node on which the volume server is running.

NT: Notify the development organization of a possible engineering problem. Use the ADJUST command in VSMUP to increase MAXOFR parameter.

1108 Minor Error

Cause: The defer queue has reached its maximum value for the volume.

Impact: Effect should be transient, some operations will fail until some files are closed.

Action: Reduce the maximum message length in the MMI through the Voice System Administration/Options menu screens.

NT: Notify the development organization of a possible engineering problem.

1109 Minor Error

Cause: The maximum Read copy file open limit has been reached for the volume.

Impact: Usually transient. The operation fails but the error should stop occurring after some files are closed.

Action: There may be too many users. For multi-node systems, ensure the users are distributed evenly on each node. If the problem persists, contact your NT support organization.

NT: May indicate an engineering problem. If the system has been properly set up and the volume parameters are correct, notify the development organization. The VSMUP ADJUST command can be used to increase MaxCR slightly.

1110 Minor Error

Cause: A client had a file open in quick-read-write mode too long and VS closed the file.

Impact: The client will have to reopen the file.

Action: May indicate an overloaded system or an excessively big cabinet. If the error persists, contact your NT support organization.

NT: Determine the filename from the FID; see SEER 1118. Then try to find out why VS closed the file. You may need to increase the qRWTimeout parameter using the VSMUP ADJUST command. Notify the development organization.

1111 Minor Error

Cause: A client passed an invalid FID to the volume server or tried to access a file which was closed by the VS.

Impact: The client will have to reopen the file. Usually minor impact affecting only one client.

Action: Look for previous SEERs indicating files closed by the sweeper or due to quick-read-write timeouts. Investigate those SEERs. If the problem persists, contact your NT support organization.

NT: This is usually a result of some previous abnormal condition. Notify the development organization if this occurs frequently.

1112 Minor Error

Cause: A client tried to open a file using a NIL taskID.

Impact: Operation fails.

Action: Collect all SEERs and contact your NT support organization.

NT: May indicate software bug. Obtain all SEERs and notify the development organization.

1113 Minor Error

Cause: A client tried an invalid or non-existent function.

Impact: The operation fails.

Action: Collect all SEERs and contact your NT support organization.

NT: May indicate software bug. Obtain all SEERs and notify the development organization.

1115 Minor Error

Cause: A client frees up a block that the VS thinks is not in use.

Impact: May indicate corruption on a volume.

Action: Collect all SEERs and contact your NT support organization.

NT: If this problem occurs in normal operation it may indicate corruption of a volume. Force an audit using VSMUP and watch for SEERs during audit. A successful audit may repair the problem, but other forms of volume corruption may have already been caused. In cases of serious corruption, it may be necessary to recover from backup. Notify the development organization.

1116 Minor Error

Cause: Corrupted block buffer.

Impact: May indicate a problem with application software but not volume corruption.

Action: Disable and re-enable the node mentioned in this SEER. If problem persists contact your NT support organization.

NT: Notify the development organization if this is a chronic problem.

1117 Minor Error

Cause: Bad media type.

Impact: May indicate a problem with application software but not volume corruption.

Action: Disable and re-enable the node mentioned in this SEER. If problem persists contact your NT support organization.

NT: Notify Northern Telecom's development organization if this is a chronic problem.

1118 Minor Error

Cause: Volume server limit for block records (BRs) exceeded.

Impact: The volume server closes the file. Subsequent accesses may result in SEER 1111. The operation in progress fails.

Action: May be transient problem. If it persists, contact your NT support organization.

NT: This SEER prints out the file's root block number and the remote task ID of the task that opened the file. For example, the following message may be printed:

1118 VS202: closing FID. root=2391 RTid=7C00000004055505

The first number, 2391 in this case, is the root block number of the file. The second number is the remote teask ID in hexadecimal.

Determine the filename from the root block number using the VS_TRAVCAB utility, and then try to establish why the file ran out of block records.

1119 Minor Error

Cause: Client attempted to write a block to the OFS.

Impact: The operation fails.

Action: Collect all SEERs and contact your NT support organization.

NT: Notify the development organization.

1121 Critical Error

Cause: The disk could not be accessed. The VS can't rendezvous with the mi_server. The mi_server may be down.

Impact: All operations requiring access to that disk will fail.

Action: The return code is an MI_SERVER diagnostic code. Look it up in the Appendix. Possible hardware problem with the disk subsystem. Run disk diagnostic.

NT: The disk may be faulty or is not running.

1122 Minor Error

Cause: Bad parameters passed to VS by a client.

Impact: Operation fails.

Action: Contact your NT support organization.

NT: If this occurs in normal operation it may indicate a software problem, notify the development organization.

1123 Minor Error

Cause: Volume server detected termination of an open file server (OFS).

Impact: Access may be slower for files which are normally cached.

Action: Look for SEERs giving reason for OFS termination. Disable and re-enable the node on which the OFS was running.

NT: This SEER is normal if the node that the OFS was running on died. Otherwise, collect all SEERs and notify Northern Telecom's development organization.

1124 Critical Error

Cause: Insufficient memory for volume server to perform operation.

Impact: If it occurs on startup, no accesses to that volume will work. Otherwise either an online backup or audit may fail. Chronic audit failure can result in loss of disk space and a volume full condition.

Action: If the administrator is using network, hardware, or voice service administration, free memory by exiting these menus. Ensure that no tools or utilities are in use. The condition can be cleared by disabling and re-enabling the node. Memory can also be freed by disabling DSP ports on that node. If the problem persists, contact your NT support organization.

NT: Check system configuration. Memory fragmentation can occur, particularly if utilities have been used. If the problem is chronic, it indicates an engineering problem. Notify the development organization with details of customer configuration.

1126 Minor Error

Cause: The volume server found a discrepancy between its volume name and the volume name stored on disk. Can be caused by renaming a volume or restoring one to a different name.

Impact: The volume server cannot start and the volume cannot be accessed.

Action: Contact your NT support organization.

NT: Ensure that a restore or autobuild operation was performed correctly. If necessary, use BURP RENAMEVOL command to rename the volume to its original name.

1127 Minor Error

Cause: A client passed a bad key to the volume server.

Impact: The client's activity will fail.

Action: Look for preceding SEERs indicating files closed. Collect SEERs and contact your NT support organization if the error persists.

NT: Possible software bug, notify the development organization if a chronic problem.

1128 Minor Error

Cause: Volume server has reached limit of quick-read-write files.

Impact: Usually a transient error resulting in some failed operations until files are closed.

Action: If the error persists, contact your NT support organization.

NT: May indicate an engineering problem with this system configuration. Notify the development organization. If necessary, use VSMUP ADJUST command to increase MaxqRW parameter on that VS.

1129 Minor Error

Cause: Volume server complains of a control conflict when asked to perform two mutually exclusive tasks. Can be caused by trying to perform an online backup during an audit or volume compress operation.

Impact: Cannot perform second operation until first one is complete.

Action: Wait until volume server is in correct state for the operation. If the problem was due to a scheduled backup, change the schedule time so that it does not coincide with the nightly audit. If the volume server appears to be stuck in a bad state, disable and re-enable the node where the volume server is running.

NT: Find out the state of the VS from VSMUP's OMDispay command. If the state is not 'normal', look at SEERs printed at an earlier time and determine the operation that VS has started.

1130 Critical Error

Cause: A disk error occurred reading or writing a block.

Impact: May indicate transient or serious disk problems.

Action: Look up the MI_SERVER error code in the Appendix. If this error occurs consistently on a user volume, consider moving users to a disk which is less heavily used. If the problem persists contact your NT support organization. Other error codes may indicate hardware problems with the disk subsystem. Run disk diagnostics.

NT: Chronic occurrence in particular configurations may indicate engineering problems. Notify the development organization. Ensure disk load is evenly distributed across available disks. If hardware problems are suspected, follow disk maintenance procedures.

1131 Critical Error

Cause: Volume server could not write some of its system data.

Impact: Space may be lost on the volume.

Action: Wait for nightly audit, or try deleting files on the volume. If the problem persists, contact your NT support organization.

NT: Use VSMUP to run an audit. Use MD to remove small files if audit fails.

1132 For information only. System

Cause: A nightly volume server audit is being run. Depending on the text of the SEER, this may be perfectly normal or may indicate minor or major system problems. The following SEERs are normal; if the text says:

1. "VSn:Starting Audit", a normal audit has begun.
2. "VSn:Finished Audit: # blocks recovered = n", a normal audit has completed and n blocks have been recovered.
3. "VSn:Starting Garbage Demon dd/mm/yy hh:mm:ss", a normal garbage demon has started removing files which were obsolete as of the specified time.
4. "VSn:Garbage Demon Finished-files deleted=m", the garbage demon completed. The number of files it removed is m.
5. "VSn:Starting Shadow Disk Audit...", the shadow disk audit has started.
6. "VSn:Finished Audit: # blocks mismatched=x", the shadow disk audit has finished. If *x* is non-zero, this indicates that the shadow disks are not in sync.

Other SEERs are abnormal and indicate problems encountered during either the audit, garbage demon, or on-line backup. The auditor accesses every file on the volume so it will tend to catch any file corruptions.

Impact: Cases 1-5: None

Case 6: Different data may be read from the shadow disks causing file inconsistency.

Action: Cases 1 to 5: None

Case 6: Disable the shadow disk feature on the node the VS is running on, and then run a regular VS audit to check for file integrity. Any error reported during the audit may indicate file corruption. It may be necessary to restore the volume from backup.

NT: Cases 1–5: None

Case 6: Disable the shadow disk feature on the node the VS is running on, and then run a regular VS audit to check for file integrity. Any error reported during the audit may indicate file corruption. It may be necessary to restore the volume from backup.

1133 Critical Error

Cause: The volume server has discovered a damaged bit map.

Impact: Up to 8192 free blocks may be lost.

Action: Look up the return code in the Appendix. Check that the nightly audit recovers space without error by viewing the overnight SEER messages.

NT: Use VSMUP to run audit.

1134 Critical Error

Cause: The volume server has failed to start due to an error given as the return code.

Impact: No access to the volume.

Action: Look up the return code in the Appendix. If the problem persists contact your NT support organization.

NT: May be caused by volume corruption. Check hardware. Restore from backup.

1135 Major/Minor Error

Cause: One of several internal failures in the volume server. If the text says:

1. "VSn:Audit bit map error (text) m" or "VSn:Audit bit map error (voice) m", the auditor is correcting an error in the volume block allocation bit maps. This error can occur normally in some rare circumstances when files are being deleted during an audit. If it occurs often, it may indicate a more serious consistency problem, contact your NT support organization. The block number is given as m.
2. That a task crashed, an internal task has terminated abnormally for reasons given in the SEER. The task will be restarted automatically.

Impact: Normally no impact, but may indicate serious problems.

Action: If problem persists, collect SEERs and contact your NT support organization.

NT: Notify the development organization with details of frequent occurrences.

1136 Minor Error

Cause: A user is trying to exceed their space allocation.

Impact: The user will not be able to add files.

Action: Ask the user to delete files or give the user more space.

NT: Find out the space allocated for the user, and compare it with the space the user is currently using. If space allocated is less than the space used, notify Northern Telecom's development organization with details of chronic occurrences.

1137 Minor Error

Cause: The Volume Server is being told to bill space to a user which it does not know about. If a system reboots or a volume server restarts, and new users had been added that day, this error may result if those users attempt to access their mailboxes.

Impact: New users may not be able to use the system until the next day.

Action: Ensure the audit runs correctly that night. This will cause the new users to be recognized by the VS. Alternatively, delete and re-add the users.

NT: Problem is corrected by using VSMUP to run an audit.

1138 Minor Error

Cause: An error occurred writing some of the space records and some data was lost. The return code indicates cause of the error.

Impact: The audit failed to write some user's space records to disk. Those users may be unable to compose messages.

Action: Look up the return code in the Appendix.

NT: Try running audit using VSMUP.

1139 Minor Error

Cause: The volume server has reached the limit for number of users.

Impact: No more users can be added to the volume.

Action: Redistribute users to other volumes. If all volumes are full, consider expanding system.

NT: The customer is trying to exceed the maximum number of users in the system. The ADJUST users command in VSMUP can be used to increase the MaxSR parameter slightly, but other system engineering problems may occur.

1141 Minor Error

Cause: A volume compress operation is being run to reduce the size of a volume. This is normally done only during installation, conversion or expansion. If the text is "starting compression", the next volume size in blocks will be given. This value will be negative if a text volume is being compressed. Depending on the text of the SEER there may or may not be a problem. The return code may give more information about any errors.

Impact: If the SEER indicates failure to compress, the volume has not been compressed.

Action: Investigate the return code if one is given. If the text says “Specified size to compress into too small!” then delete some files and re-try the operation.

NT: Same as action

1142 Minor Error

Cause: The temporary volume ran out of space during an on-line backup due to too much activity on the volume during the backup or due to the backup taking too long (for example, it stopped while waiting for a new tape to be put in).

Impact: The online backup fails.

Action: Perform the backup when the system is less busy. Do not leave the system waiting for a new tape for long periods.

NT: Perform the backup when the system is less busy. Do not leave the system waiting for a new tape for long periods.

1143 Minor Error

Cause: vs_e Lock timeout. Server table locked too long by client s/w.

Impact: No further volume table updates on that processor. No user input.

Action: Disable and re-enable node.

NT: Disable and re-enable node.

1145 Minor Error

Cause: Too many open file servers registered with VS.

Impact: OFS caching partially disabled, possible performance impact.

Action: Contact your NT support organization.

NT: Contact the development organization.

1146 Minor Error

Cause: Audit failed

Impact: Problems resulting in “audit failure” mean that lost blocks are not recovered. Since blocks are usually lost only due to abnormal system conditions, the impact may be minimal unless the audit fails every time. Consistent audit failure will lead to the volume full condition (see SEER 03) due to lost blocks. Problems resulting in garbage demon failure mean that some or all of the obsolete messages may not have been deleted from users’ cabinets. In time, this too can lead to a full volume. Other

problems encountered during an audit do not prevent the audit from recovering lost blocks, but may indicate problems with particular system files or users' cabinets.

Action: Periodically check the SEERs to ensure that all nightly audits are completing successfully. If a SEER includes a file name, the problem can often be fixed by removing the indicated file or cabinet. In particular, if the file name refers to a userID (for example, "/2/users/Smit2345") try removing files in the user's cabinet or deleting and re-adding the user (in this example the user at box 2345). If problems persist, contact your NT support organization.

NT: If the SEER contains a return code, look it up to find the underlying cause. If the SEER contains a pathname to a file other than a user's cabinet, attempt to determine the problem with the file using MD. If the return code is 1007, use MD to remove the file indicated by the pathname. Notify the development organization of chronic problems in normal system operation.

1147 For information only Debug

Cause: Task which had a file open died without closing the file.

Impact None. VS cleans up.

Action: If problems occurs too frequently, contact your NT support organization.

NT: If a task dies without closing a file, the VS sweeper task will close the file at a rate determined by the volume's sweeping rate parameter.

1148 Minor Error

Cause: Error during online backup. Look up error code to determine reason for failure.

Impact: Backup fails

Action: Retry backup.

NT: The backup can only be run when VS is in normal state. Check the state of the VS.

1149 For information only Admin

Cause: Normal Backup. If "VSn:starting online backup" then an online backup operation has started. If "VSn: Online backup done, #roots=m" then an online backup operation is complete. If m is greater than 900, consider doing the backup at a quieter time.

Impact: None

Action: None

NT: None

1150 Info Debug

Cause: A client task still has an obsolete version of a file open even though the file has been updated.

Impact: Normally none. It can result in SEER 1118 problems if it persists.

Action: If problem persists, contact your NT support organization.

NT: See SEER 18 for information on how to determine which task and file are involved. Get the client task to close and reopen the file so that a new version is seen.

1151 Minor Error

Cause: VS had error invoking open files server.

Impact: Some tasks may not see new data.

Action: Disable and re-enable node defined in the SEER.

NT: The OFS may have died due to some previous OFS error. Collect all SEERs, and notify Northern Telecom's development organization.

Class 12 Cabinet Access Method (CM)

Introduction

A cabinet stores system files and user files (voice messages). A user's personal cabinet is often called a "mailbox". The Cabinet Access Method is a set of routines that:

- Stores, retrieves, and updates files and related information in cabinets
- Maintains and retrieves counters for different types of files
- Performs buffered operations on a cabinet

Cabinet errors can cause:

- A service to become unusable (such as Express Messaging) if a system cabinet is affected (for example, the corporate directory)
- Messages to go undelivered, if an MTA cabinet is affected
- A mailbox to become inaccessible, if a user's personal cabinet is affected
- Volume server audit errors to occur

A Class 12 SEER contains:

- Cabinet File ID
- Record ID

Reports

1250 Error Minor

Cause: A cabinet may be corrupt. For example, part of the cabinet may be missing.

Impact: The cabinet cannot be accessed.

Action: Attempt to determine which cabinet is corrupted. If it is a user's cabinet, delete and re-add the user. If the error persists, collect SEERs and contact your NT support organization.

NT: This SEER can be caused by volume corruption. Check for other evidence of bad data on this volume. If necessary, restore from backup. Notify the development organization if this is a chronic problem.

1251 Error Minor

Cause: Attempt to access a cabinet with an incompatible version of software. The software version is shown in the SEER.

Impact: No cabinets are accessible making the system unusable.

Action: Ensure that the system is correctly installed or converted. Contact your Northern Telecom support organization.

NT: If the problem occurs only on one cabinet, try to delete or recreate that cabinet. If there is evidence of volume corruption, restore from backup.

1280 Error Minor

Cause: A bad parameter was passed to a CM function. This can result from a previous file system error.

Impact: The operation fails.

Action: Investigate any errors preceding this one. If the error persists, collect SEER information and contact your NT support organization.

NT: If this occurs during normal system operation, it is likely a minor software problem. Notify the development organization.

1282 Info Debug

Cause: A minor failure has occurred while attempting a CM operation. The return code and text give the underlying cause. This usually results from cleaning up after some previous failure, for example, trying to delete a file which is no longer there.

Impact: In most cases there is no impact except a few lost blocks which should be recovered by the nightly VS audit.

Action: If the error persists, collect the SEER information and contact your NT support organization.

NT: If this occurs frequently during normal system operation, it is likely a minor software problem.

Class 13 Open File Server (OFS)

Introduction

An Open File Server program runs on each node of the system. It manages an area of memory called a “cache” which is used to hold blocks of frequently read disk files in order to speed up access to these files by reducing the number of disk reads needed. On multi-node systems, the OFS also manages an area on the locally attached disk. This area is used to reduce the number of times data has to be obtained from other nodes. Both voice and text blocks can be cached. OFS errors can cause slow response from Voice Messaging and increased load on the MI_SERVER.

A Class 13 SEER may contain a lower level return code.

Reports

1303 Minor Error

Cause: A tasking error occurred when the OFS tried to register with a Volume Server. The tasking error is given in the SEER.

Impact: Usually negligible. The OFS in question will not cache files from the VS in question. This may result in a minor performance slowdown.

Action: Disable and re-enable the node running the OFS

NT: Check if the VS that the OFS could not register, is running or not. Disable and re-enable the node running the OFS.

1304 Minor Error

Cause: An error occurred when the OFS tried to register with a volume server. The error code is given in the SEER.

Impact: Usually negligible. The OFS in question will not cache files from the VS in question. This may result in a minor performance slowdown

Action: Look up the error code given in the SEER. Disable and re-enable the node running the VS.

NT: Same as action.

1305 Minor Error

Cause: The Open File Server could not load files in its control file. This usually means:

1. The volume server, related to the files, is down.
2. The control file has errors.

Impact: The file will not be cached. Some prompts may be inaccessible

Action: Contact your NT support organization

NT: Check the STARTLIST. Check control file /1/OFS/VM. Check that files exist and are not corrupted. Look up lower layer return code.

1306 Minor Error

Cause: The size of a shared memory file has changed in the interval between segment allocation and reading of the file.

Impact: The file will not be cached.

Action: Disable and re-enable the node.

NT: Same as action.

1309 Minor Error

Cause: A tasking error occurred when pushing data to client program. It can be caused if a client program dies while sending data from OFS.

Impact: User operation fails.

Action: Look up task result given in SEER. If the problem persists, collect SEERs and contact your Northern Telecom support organization.

NT: If this is a chronic problem not resulting from other programs dying; contact designers.

1310 Minor Error

Cause: Open File Server had the startup error specified by the error code in the SEER.

Impact: The OFS will not start. Voice messaging will not work on that node.

Action: Look up error code. Contact your NT support organization.

NT: Look up error code. Check STARTLIST. Check control file /1/OFS/VM. Check that all the files mentioned in the control file exist and are not corrupted.

Class 14 MI Server and Interface (MI)

Introduction

The MI layer is a virtual disk handler. All disk requests pass through the MI layer. There is one mi_server on each node. Disk requests on the local node just pass through the MI interface, while disk requests for remote nodes pass through the mi_server on the remote node. Each disk, or pair of disk if they are shadowed, has a unique name; the name starts with ‘FAST’ and since there is only one disk associated with each node, nodes greater than node 1 have the node number appended to the FAST. For example, the disk on node 5 would have the name FAST5.

Class 14 errors occur when data can not be read from, or written to, the disk. The severity of the error depends on what part of the disk is affected. In some extreme situations the system will not boot-up if the programs can not be read from disk. Less severe problems would only affect a single user, or possibly a single message. The actual disk error is reported by the disk driver software. If a disk is reported faulty it should be replaced.

Reports

1420 Minor Error

Cause: The mi_procs has problem invoking mi server entries, or the mi server failed to perform the requested operation.

Impact: The mi operation will fail.

Action: The SEER contains the tasking result or error code. Check the tasking result/error code against the SEER manual for more information.

NT: Check the return code in the SEER to determine the actual cause of the problem.

1430 Minor Error

Cause: The mi_procs could not rendezvous with the mi_server.

Impact: A client could not read a block from disk, or write a block to disk. An associated SEER indicates the service that was affected.

Action: The return code is a task result which indicates the reason why the rendezvous failed. If an invalid task ID is returned then the most likely error is that the remote node has failed; check for SEERs indicating the failure of a node.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the remote mi_server.

1434 Minor Error

Cause: The mi_procs could not rendezvous with the mi_server.

Impact: The control operation to the mi_server could not be executed. An associated SEER indicates the service that was affected.

Action: The return code is a task result which indicates the cause of the problem. If an invalid task ID is returned then the most likely error is that the remote node has failed; check for SEERs indicating the failure of a node. This problem can only occur when creating or deleting a volume, which for normal operation is only during a backup.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the sanity of the mi_server.

1440 Critical Error

Cause: The mi_procs in the Monitor could not allocate, or find the shared memory segment ‘MIVSSEG’.

Impact: The system will not operate if it can not allocate this memory.

Action: Repair the hardware.

NT: The most likely cause will be hardware failure in the CPU or Memory.

1442 Critical Error

Cause: The mi_server in the OSP could not allocate memory for buffering.

Impact: The system will not operate if it can not allocate this memory.

Action: Repair the hardware.

NT: The system will not operate if it can not allocate this memory. The most likely cause will be hardware failure in the CPU or Memory. In a Classic Meridian Mail system the most likely cause will be a bad SCSI RAM card, as this memory is allocated in the SCSI RAM. In an EC or MSM system there is probably a problem on the 68K card.

1457 Minor Error

Cause: The mi_server could not send data that it read from disk to the client. This means that the disk was successfully read, but the data could not be transferred to the client, usually on a remote node.

Impact: The client did not receive data from disk.

Action: Try to match this SEER code (1457) with another SEER that reports the 1457 as a return code. If the remote node is alive and receives the error, then the client will report the error as well with the 1457 as part of it's SEER. The severity of the problem will be based on the severity of the operation of the client.

If no matching SEER can be found, then there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. Contact your NT Support organization.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client on the remote node. Check the SEERs for problems with nodes or internode communication.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the the push failed. The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the virtual address for the push, the next four characters are the locale, and the last eight characters are the physical node.

1458 Minor Error

Cause: The mi_server could not receive data from a client that it was supposed to write to the disk. This means that no attempt was even made to write to the disk.

Impact: The data from the client was not written to disk.

Action: Try to match this SEER code (1458) with another SEER that reports the 1458 as a return code. If the remote node is alive and receives the error, then the client will report the error as well, with the 1458 as part of it's SEER. The severity of the problem will be based on the severity of the operation of the client.

If no matching SEER can be found, then there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. Contact your NT Support organization.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client on the remote node. Check the SEERs for problems with nodes or internode communication.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the Task Result will be adequate to determine why the the pull failed. The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the virtual address for the pull, the next four characters are the locale, and the last eight characters are the physical node.

1465 Critical Error

Cause: The mi_server failed its sanity test.

Impact: All disk access for that node will fail

Action: Determine the cause of the sanity failure from the associated SEERs. This would usually be caused by bad hardware, the most likely being the CPU or memory.

NT: Go to VSMUP. Run the commands ‘miinfo voltable’ and ‘miinfo mitable’. Also run the command ‘controlb all’. Collect all info and notify Northern Telecom’s development organization (NT-TOR).

1467 Minor Debug

Cause: An unknown disk error has occurred.

Impact: The mi control request will fail.

Action: Check for disk problem.

NT: This is possibly a software problem. Determine the unknown return code from the SEER, and notify Northern Telecom’s development organization (NT-TOR).

1469 Minor Debug

Cause: An attempt was made to reallocate memory which has already been allocated.

Impact: No impact.

Action: This SEER is for information only, no action is required unless it occurs recurrently. This SEER is expected after a mi_server is restarted, as the mi_server allocates the memory when the system boots up. During normal operation this SEER should not occur. If problem persists contact your NT Support organization.

NT: None

1471 Info Debug

Cause: A mi_server defer queue was allocated and has timed out.

Impact: No impact.

Action: This SEER is for information only, no action is required unless it occurs recurrently. An allocated defer queue is released if it has been allocated for a specified time. This is a recovery mechanism in the event that that the SCSI driver never returns with a disk operation. It could indicate a possible problem with the disk or SCSI hardware. In that case contact your NT Support organization.

NT: The disk may be bad. Run disk diagnostic.

1472 Minor Error

Cause: The internal MI table is corrupted. The MI will try to re-initialize the table again. If the re-initialization fails, a 1465 sanity SEER will be printed.

Impact: All disk access for that node is unreliable.

Action: Try to reinitialize the disk again (*Warning*: All previous data stored on the disk will be lost). If problem persists, contact your NT support organization.

NT: The disk may be bad or not initialized. Run disk diagnostic.

1475 Minor Debug/Error

Cause: The mi_server could not send the control block that it read from disk to the client.

Impact: This means that the disk was successfully read, but the data could not be transferred to the client. This SEER only occurs when changes are made to the virtual volumes on disk, and hence would be associated with a backup to tape, or during the installation of a system. If only the debug level SEER is printed, the read operation succeeded on retry; otherwise the read failed.

Action: Try to match this SEER code (1475) with another SEER that reports the 1475 as a return code. If the remote node is alive and receives the error, then the client will report the error as well with the 1475 as part of it's SEER. The severity of the problem will be based on the severity of the operation of the client.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the the push failed.

If no matching SEER can be found, then there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. If problem persists contact your NT Support organization.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client.

The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the virtual address for the push, the next four characters are the locale, and the last eight characters are the physical node.

1476 Minor Error

Cause: The mi_server could not receive the control block from a client that it was supposed to write to the disk.

Impact: This means that no attempt was even made to write to the disk. This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client on the remote node. This SEER only occurs when changes are made to the virtual volumes on disk, and hence would be associated with a backup to tape, or during the installation of a system.

Action: Try to match this SEER code (1476) with another SEER that reports the 1476 as a return code. If the remote node is alive and receives the error, then the client will report the error as well, with the 1476 as part of it's SEER. The severity of the problem will be based on the severity of the operation of the client.

The SEER contains the task result, and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the the pull failed.

If no matching SEER can be found, then there could be a bus interconnection problem, or a problem with the remote node. Check for SEERs that indicate a failure of the client or the node. If problem persists contact your NT Support organization.

NT: This indicates a possible problem with the bus interconnecting the nodes, the sanity of the remote node, or the client.

The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the virtual address for the push, the next four characters are the locale, and the last eight characters are the physical node.

1477 Minor Error

Cause: A tasking error occurred while trying to read or write the mi control block to disk; the control block contains the list of virtual volumes defined on the disk.

Impact: This SEER only occurs when changes are made to the virtual volumes on disk, and hence would be associated with a backup to tape, or during the installation of a system. It usually would indicate a disk, or disk driver hardware problem. Another SEER with a return code of 1477 will indicate the actual operation that failed.

Action: If the error occurred during backup then try the backup again. The return code of the SEER contains the task result which indicates why the disk operation failed.

NT: This could be caused by a node failing, or a failure in the interconnection bus or hardware.

1478 Minor Error

Cause: A tasking error occurred while trying to do a direct-read from disk; a direct-read is when the operation does not rendezvous with the mi_server.

Impact: The client did not receive data from disk. An associated SEER indicates the service that was affected.

Action: The return code of the SEER contains the Task Result which indicates why the disk operation failed. If the problem persists, run disk diagnostic.

NT: The disk may be too busy or bad. If the problem persists, run disk diagnostic.

1479 Minor Error

Cause: A tasking error occurred while trying to do a direct-write to disk; a direct-write is when the operation does not rendezvous with the mi_server. It usually would indicate a disk, or disk driver hardware problem

Impact: The client did not write data to disk. An associated SEER indicates the service that was affected.

Action: The return code of the SEER contains the task result which indicates why the disk operation failed. If the problem persists, run disk diagnostic.

NT: The disk may be too busy or bad. If the problem persists, run disk diagnostic.

1480 Critical Error

Cause: There was an error in processing the mi internal volume tables in RAM. These volume tables are read from the mi control block on the disk, and saved in RAM.

Impact: The system will not operate correctly.

Action: The return code the SEER contains indicates the cause of the problem. The most probable error would be that there was an error reading the control block, which would normally indicate a disk drive or SCSI hardware failure. After this error the

system will not operate correctly, and will have to be repaired. Contact your NT Support organization.

NT: The return code will give an indication of the hardware that should be replaced. This is most likely the disk or SCSI hardware, but could also be RAM or CPU on the specific node.

1488 Info Error

Cause: The mi_tools cannot allocate memory for the requested control function.

Impact: The mi control request will fail.

Action: Repair the hardware.

NT: The most likely cause will be hardware failure in the CPU or Memory. In a Classic Meridian Mail system, the most likely cause will be a bad SCSI/RAM card. In an EC or MSM system there is probably a problem on the 68K card.

1489 Info Debug

Cause: Bad data was supplied to the mi_server. This occurs normally when a single node is rebooted and the other nodes are active.

Impact: The mi_server ignores the data.

Action: This can be ignored if it occurs occasionally during the warm boot of a node. However if it occurs during normal operation then there could be a possible memory or inter node bus communication problem. Contact your NT Support organization.

NT: Check the memory and inter node busses for a possible hardware error.

Class 15 Backup and Restore Program (BURP)

Introduction

The Backup software backs up system and user data automatically at a time set by the System Administrator or whenever it is invoked by a user. For single-node systems backup must be done to tape; on multi-node systems, if the disk-to-disk backup feature is enabled, backups may additionally be done to disks.

Usually, Backup errors have no or little impact on system operation. But the backup must be tried again. If the backup fails again, then the problem should be solved immediately. Backing up data periodically is strongly recommended.

If a disk drive fails and a backup exists, the contents of the disk drive can be restored from the backup. Errors encountered by the Restore software may make it impossible to recover the data from the backup.

Problems that persist after the recommended actions have been taken may indicate a hardware problem. In this case contact your support organization.

The Backup and Restore Program (BURP) is a utility providing commands to do backup and restore operations. Normally, however, backup operations would be done from the volume administration screen of the MMI.

A Class 15 SEER generally contains a lower level return code. Refer to Appendix A for the SCSI device sense key and error codes.

Reports

1501 Minor Error

Cause: The tape successfully recovered from an error. This is an error report of the recovery. Under normal operation this error condition should not occur. It would indicate media or hardware problems.

Impact: The tape operation failed

Action: Clean the tape heads and then retry operation with a new tape cartridge.

NT: Replace the tape drive.

1502 Minor Error

Cause: The tape drive can not be accessed or the tape cartridge is not inserted correctly.

Impact: The tape operation failed.

Action: Remove and reinsert the tape cartridge. If that does not work then try again with a new tape cartridge.

NT: This could also indicate a tape or SCSI hardware error. Check the jumpers on the tape drive. Check the SCSI cabling and SCSI hardware. The tape drive, cabling or SCSI hardware might have to be replaced.

1503 Minor Error

Cause: There was a flaw in the tape medium or an error in the recorded data.

Impact: The tape operation failed.

Action: Clean the heads of the tape drive. Try the operation again. If that fails clean the heads again and retry the operation with a new tape cartridge.

NT: Replace the tape drive.

1504 Minor Error

Cause: The tape drive hardware is faulty.

Impact: The tape operation failed.

Action: Contact your NT support organization.

NT: Replace the tape drive.

1506 Major Error

Cause: An error occurred on the SCSI bus. The software has attempted to recover by resetting the SCSI bus.

Impact: Tape and disk operations during the reset are aborted.

Action: No action required. Any operations that were accessing the SCSI bus report errors as part of the recovery action.

NT: If this problem occurs frequently there could be a hardware problem with the tape drive, disk drive, SCSI cabling or SCSI hardware.

1507 Minor Error

Cause: The tape cartridge is write protected or the incorrect type.

Impact: Tape operation failed.

Action: If the tape is write protected turn the write protect dial to allow writing to tape. Also check that it is the correct cartridge type for the tape drive. (Refer to your administration guide for correct tape cartridges.)

NT: Same as action

1508 Minor Error

Cause: No data was found on the tape.

Impact: Data was not found on the tape drive–cannot restore.

Action: Clean the tape heads. Check that data exists on the tape cartridge by using the TAPELIST command from BURP. Retry the operation.

NT: Same as action

1511 Minor Error

Cause: The tape drive aborted a SCSI command.

Impact: The tape operation failed.

Action: Try operation again.

NT: If the error occurs frequently the tape drive should be replaced.

1513 Minor Error

Cause: An end of tape was reached without writing all the data to the tape cartridge.

Impact: The tape operation failed.

Action: Clean the heads and try the operation again. If the problem still occurs repeat the operation with a new tape.

NT: If the error occurs frequently the tape drive should be replaced.

1517 Minor Error

Cause: Faulty SCSI hardware.

Impact: The tape operation failed.

Action: Try the operation again.

NT: Check the SCSI hardware, tape drive and disk drive for possible faults.

1518 Minor Error

Cause: Faulty SCSI hardware.

Impact: The tape operation failed.

Action: Contact your NT Support organization.

NT: Check the SCSI hardware, tape drive and disk drive for possible faults.

1519 Minor Error

Cause: No tape drive was detected when attempting a tape operation. This would usually occur during tape backup operations, and usually indicates a problem with the tape drive hardware or SCSI cabling.

Impact: The tape operation will fail.

Action: Contact your NT Support organization.

NT: Ensure that the tape drive is connected correctly.

1535 Minor Error

Cause: An error occurred reading the disk during a tape backup. The SEER reports the volume and block that could not be read.

Impact: There will be errors if a recovery is attempted from the tape backup.

Action: Check the disk identified in the SEER printout for possible faults. Restart the backup.

NT: The disk drive might have to be replaced. Try to remap the faulty blocks using the SCSI utilities.

1536 Major Error

Cause: Restore could not find the source cabinet for restoring user profiles. This would usually be as a result of trying to restore a node that was never backed up originally.

Impact: No user profiles for specified node were restored.

Action: If restoring from a disk backup then restart the restore for that node from a tape backup. If restoring from tape then restart the restore for that node from a different set of backup tapes.

NT: Same as action

1537 Major Error

Cause: Restore could not open the source cabinet for restoring user profiles. This could be as a result of trying to restore a node that was never backed up originally.

Impact: No user profiles for specified node were restored.

Action: If restoring from a disk backup then restart the restore for that node from a tape backup. If restoring from tape then restart the restore for that node from a different set of backup tapes.

NT: Same as action

1538 Major Error

Cause: The restore could not find the destination user cabinet for copying user profiles.

Impact: No user profiles for specified node were restored.

Action: This would be as a result of an error earlier in the restore procedure. Check the SEERs for any errors, perform the appropriate actions and restart the restore for the specific node.

NT: Same as action

1539 Minor Error

Cause: An unexpected error was returned from the SCSI driver. This could indicate possible hardware problems with the tape drive or any of the SCSI bus hardware.

Impact: The tape operation failed.

Action: Attempt the operation again.

NT: Check all the SCSI bus hardware. Replace the defective components.

1540 Minor Error

Cause: The return code indicates the cause of failure.

Impact: The tape backup failed.

Action: In the main section of the NTP look up the SEER which corresponds to the return code. Follow the action for correcting the problem given in that SEER and try the backup again.

NT: Same as action

1541 Minor Error

Cause: The return code indicates the cause of failure.

Impact: The disk-to-disk backup failed.

Action: In the main section of the NTP look up the SEER which corresponds to the return code. Follow the action for correcting the problem given in that SEER and try the backup again.

NT: Same as action

1542 Minor Error

Cause: Could not allocate required memory resources.

Impact: Backup or Restore software will not start up or run correctly.

Action: Try the backup again when the system is less busy.

NT: Alternatively unload another utility which is using the memory. This could also be as a result of BURP already running in another window.

1543 Minor Error

Cause: Could not initiate backup task.

Impact: Backup and Restore will not start up or run correctly.

Action: Contact your NT support organization.

NT: This could be a result of BURP already running in another window, or the tape being simultaneously accessed by the MMI. Check that there is no other program accessing the tape. If no other program is accessing the tape then the backup status may be reset by running RESETBACKUP in BURP.

1544 Minor Error

Cause: The backup task could not inform MMI or BURP that the backup was completed.

Impact: The backup is valid, but future backups might not work.

Action: Contact your NT support organization.

NT: This is an unexpected SEER and would possibly indicate software corruption or a software bug. If backup was being run from the MMI then restart the MMI. If the backup was run from BURP quit out of BURP and restart it.

1545 Major Error

Cause: The restore could not open the destination user cabinet for copying user profiles. This would be as a result of an error earlier in the restore procedure.

Impact: No user profiles for specified node were restored.

Action: Check the SEERS for any errors, correct any problems, and restart the restore for the specific node.

NT: Same as action

1546 Minor Error

Cause: Could not find the volume specified in the SEER. There are problems with the volumes on disk.

Impact: The tape operation failed.

Action: Contact your NT support organization.

NT: Check the volumes using the LIST command in MUP_PKG.

1547 Minor Error

Cause: Could not create the destination volume for a disk-to-disk backup or restore.

Impact: The backup or restore operation failed.

Action: Contact your NT support organization.

NT: There could be insufficient space on the disk, or hardware problems related to the disk or SCSI bus. Verify the disk configuration using LIST in MUP_PKG; if the disk configuration is incorrect it should be corrected before the backup or restore is attempted again. If the LIST fails then the disk or SCSI hardware will have to be repaired.

1548 Minor Error

Cause: Could not obtain volume statistics. Usually this would be as a result of attempting an operation on an unknown volume. It could also be as a result of a faulty node on which the volume resides.

Impact: The backup or restore operation failed.

Action: Check for any associated SEERs to confirm the possible cause.

NT: If the node or disk reveal problems, they may have to be replaced.

1549 Minor Error

Cause: Blocks could not be read off the disk for the tape backup. The number of blocks lost are given in the SEER. The associated SEERs will indicate which blocks were not read correctly.

Impact: A restore from the backup might fail, depending on which blocks were not recoverable.

Action: Contact your NT support organization.

NT: Use SCSI utilities to remap the bad blocks and retry. The disk may be bad and may need replacement.

1550 Minor Error

Cause: Could not delete the temporary online backup volume. This error is not expected during normal operation and would indicate hardware failure.

Impact: The backup was successful but the backup software failed to delete the temporary backup volume. Future backups might fail.

Action: Contact your NT support organization.

NT: This could also indicate that a remote node failed during the backup. Perform diagnostics on the system and the disk to isolate the faulty component. If no faulty components exist, contact the development organization with the complete SEER using “se_util”.

1551 Minor Error

Cause: There was a tasking error while checking to see if the user wanted to abort the backup operation.

Impact: The backup operation failed.

Action: Retry the operation, possibly at a different time when the system is not as busy.

NT: Same as action

1552 Minor Error

Cause: Could not locate volume server for an online backup. Usually this would be as a result of attempting an operation on an unknown volume. It could also be as a result of a faulty node on which the volume resides.

Impact: The online backup operation failed.

Action: Correct the volume number before retrying the operation. Check for any associated SEERs to confirm the possible cause.

NT: Ensure that the node and associated disk are healthy. If necessary, hardware may have to be replaced.

1553 Minor Error

Cause: MMI/BURP could not rendezvous with the backup task. The task result indicates why the rendezvous failed.

Impact: The backup operation failed.

Action: Contact your NT support organization.

NT: If the operation was performed from MMI then restart the MMI. If the operation was performed from BURP then run ABORTBACKUP, quit out of BURP, and then restart BURP.

1554 Minor Error

Cause: An error occurred while copying a user profile during backup or restore. The SEER indicates which user profile was affected and the additional return code will indicate the actual problem.

Impact: The user will not be recovered during restore and recovery.

Action: If the error occurred during a backup then correct the problem with the user and repeat the operation. If the error occurred during a restore and recovery then the user will have to be added after the system has been restarted.

NT: Same as action

1555 Minor Admin

Cause: Another backup task is already running.

Impact: New backup request will not be performed.

Action: Wait for previous backup request to finish, or abort it, and then redo the operation.

NT: Same as action

1557 Minor Error

Cause: The backup task could not locate the volume to be restored on the tape.

Impact: The backup operation fails.

Action: Retry the operation with a tape that does contain the requested volume. If you are sure that this tape contains the volume, clean the tape heads and retry with same tape.

NT: Same as action

1558 Minor Error

Cause: The backup task could not inform MMI or BURP of a backup error.

Impact: The backup operation failed.

Action: Contact your NT support organization.

NT: This is an unexpected SEER and would possibly indicate software corruption or a software bug. If backup was being run from the MMI then restart the MMI. If the backup was run from BURP quit out of BURP and restart it.

1559 Minor Error

Cause: Insufficient memory available to create a heap for a user profile backup.

Impact: The backup operation failed

Action: Contact your NT support organization.

NT: Unload other utilities or packages that are using the memory.

1560 Minor Error

Cause: Insufficient memory to create a heap for running the backup task.

Impact: The backup operation fails.

Action: Contact your NT support organization.

NT: Unload other utilities or packages that are using the memory.

1561 Minor Error

Cause: The backup task could not be registered.

Impact: The backup operation fails.

Action: The name server is full, possibly due to too many tasks running. Try the backup when the system is less busy.

NT: If the backup simply cannot be run, even during quiet times, and it is acceptable to reboot the system, perform the reboot. If the problem persists, contact Northern Telecom's development organization.

1562 Minor Error

Cause: An offline backup can not be performed when the VS for that volume is running.

Impact: The backup operation fails.

Action: Perform an online backup, or shut down the volume server before backing up offline.

NT: Same as action

1563 Minor Error

Cause: An error while verifying the volume. The SEER indicates the name of the volume and number of the block that had the error. If it is a text volume, the error block could be up to 8 blocks greater than the number specified in the SEER.

Impact: The backup or restore failed.

Action: Contact your NT support organization.

NT: Use the SCSI utilities to check the operation of the disk. Map out bad blocks on the disk and then retry the backup or restore operation. May have to replace hard disk.

1564 Minor Error

Cause: A recoverable error occurred during backup, usually due to bad media or dirty tape heads.

Impact: None

Action: Clean tape heads, and follow recovery action given on the screen. If problems persist, contact your NT support organization.

NT: Use SCSI utilities to remap the bad blocks and retry. The disk may be bad and may need replacement.

1571 Minor Error

Cause: An error occurred trying to read the backup volume while patching the volume. Patching occurs after an online disk-to-disk backup, or after the restore from tape of a volume that was created from an online backup.

Impact: The backup or restore failed.

Action: Attempt operation again. If it fails check the disk drive for errors. Associated SEERS might indicate the cause of the problem.

NT: If the problem persists, the disk drive may need to be replaced.

1572 Minor Error

Cause: An error occurred patching a volume after a disk-to-disk backup, or a restore.

Impact: The backup or restore failed.

Action: Attempt operation again. If it fails check the disk drive for errors. Associated SEERS might indicate the cause of the problem.

NT: If the problem persists, the disk drive may need to be replaced.

1573 Minor Error

Cause: The backup volume times in the system records differ more than expected. This is a warning that could indicate that the online backup volume may be out of sync with the main volume.

Impact: The backup or restore could be faulty.

Action: No action possible. If the restore does not work then restore from an older backup.

NT: Same as action

1574 Minor Error

Cause: Invalid root block in backup volume.

Impact: The backup or restore failed.

Action: For disk-to-disk backup try the operation again. For restore try restoring from another set of backup tapes.

NT: Same as action

1575 Minor Error

Cause: A tasking error occurred while trying to prompt for a new tape.

Impact: The backup failed.

Action: Retry the operation when the system is not as busy.

NT: If the problem persists, you may need to reboot the system at a convenient time.

1576 Minor Error

Cause: A backup was attempted while a backup task was already running. This situation should not occur during regular operation.

Impact: The attempted backup would not begin.

Action: This situation should not occur during regular operation. If it is acceptable to reboot your system, then reboot it at a convenient time. Otherwise, contact your support organization.

NT: If any other backups are running, for example, from BURP, either let them finish or kill them. Otherwise, kill the MMI and retry the operation when the MMI comes back up.

1577 Minor Error

Cause: Could not shut down the volume server for the profile backup volume.

Impact: Backup operation failed.

Action: The return code will indicate the cause of the problem. Retry operation when system is not as busy.

NT: This could also indicate a possible problem with the VS901 or VS902 entries in the startlist.

1578 Minor Error

Cause: Could not start up the volume server for the profile backup volume.

Impact: Backup operation failed.

Action: The return code will indicate the cause of the problem. Retry operation when system is not as busy.

NT: This could also indicate a possible problem with the VS901 or VS902 entries in the startlist.

1579 Minor Error

Cause: The restore software expected a voice volume on tape, but it could not be found. Usually this would occur when trying to restore from a tape which is not a valid backup tape.

Impact: The restore operation failed.

Action: Use a valid tape. If problem persists contact your NT support organization.

NT: Use the TAPELIST command in BURP to verify that the correct volumes are on the tape.

1580 Minor Error

Cause: The restore software expected a backup volume on tape, but it could not be found. Usually this would occur when trying to restore from a tape which is not a valid backup tape.

Impact: The restore operation failed.

Action: Use a valid tape. If problem persists contact your NT support organization.

NT: Use the TAPELIST command in BURP to verify that the correct volumes are on the tape.

1583 Minor Error

Cause: An error occurred reading from tape during a restore. Associated SEERs indicate the actual cause of the error. This would usually be caused by dirty tape heads.

Impact: The restore operation failed.

Action: Clean the tape heads and try operation again. If problem persists the tape is probably bad. Use a previous backup tape.

NT: If read errors persist, the tape drive itself may be faulty. Replace the tape drive.

1584 Minor Error

Cause: An error occurred trying to write data to the disk.

Impact: The restore operation failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation. If problems persist, contact your NT support organization.

NT: Same as action

1585 Minor Error

Cause: An error occurred trying to read data from the disk.

Impact: The tape archive operation of the BURP utility failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation. If problems persist, contact your NT support organization.

NT: Same as action

1586 Minor Error

Cause: An error occurred trying to read data from the disk.

Impact: The disk-to-disk copy operation failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation. If problems persist, contact your NT support organization.

NT: Same as action

1587 Minor Error

Cause: An error occurred trying to write data to the disk during a disk-to-disk copy.

Impact: The disk-to-disk copy operation failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation. If problems persist, contact your NT support organization.

NT: Same as action

1588 Minor Error

Cause: An error occurred during a disk-to-disk copy from BURP.

Impact: The disk-to-disk copy operation failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation. If problems persist, contact your NT support organization.

NT: Same as action

1589 Minor Error

Cause: An error occurred during the VSRESTORE command from BURP.

Impact: The operation failed.

Action: Associated SEERs and the return code indicates the actual cause of the problem. Correct the problem and retry operation.

NT: Follow the actions documented under the associated SEERs and return codes.

1594 Minor Error

Cause: The software initiating the backup is unable to communicate with the backup task. This situation should not occur during regular operation.

Impact: The backup will not run.

Action: If it is acceptable to re-boot your system, then re-boot it at a convenient time. Otherwise, contact your support organization.

NT: If the cause is software related, then killing the MMI and retrying the operation should clear the problem. Otherwise, the hardware may be faulty.

Class 16 System Operations (16_SYSOP)

Introduction

On Meridian Mail systems, System Operation installs or updates the software on a hardware platform.

SEERs may occur during the following system operations (SYSOP) functions:

- installation
- upgrade
- conversion
- feature expansion
- hardware modification(add channels, add nodes)
- platform conversion
- disk operations (storages expansion, disk-to-disk back up, disk shutdowns).

System operation checklist

To resolve most SEERs in this class the Action required is to “Follow the system operation checklist.” The checklist consists of the following steps:

- power the system off
- check that all boards and disks are properly inserted
- check that all cables are connected
- check that the tape is inserted into the drive and that the drive door is closed
- power on system and check that the power has been turned on for all nodes

- after tape boots, type <Ctrl> **W** and a ‘Console and Printer’ box will pop up. Type **P** to generate a more detailed printout of your operation. If the operation completes successfully, type <Ctrl> **W**, and after the ‘Console and Printer’ box pops up press **P** followed by <Ctrl> <Print Screen>. This will take the system out of print mode. If the operation fails again please have the printout ready when talking to your NT support organization.

Software configuration problems are often caused by tape errors. A complete list of SCSI device sense key and error codes can be found in Appendix A.

Reports

1600 Info System

Cause: The system is providing information about a process.

Impact: None.

Action: None.

NT: None.

1601 Minor Error

Cause: A file could not be closed.

Impact: The operation will continue without impact.

Action: If the problem persists, collect the SEER information and contact your NT representative.

NT: Usually this happens when attempting to close a file which has not been opened or is already closed. The operation will continue without impact.

1602 Critical Error

Cause: A file could not be read.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1603 Critical Error

Cause: A file could not be written to.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1604 Critical Error

Cause: The data file contains inconsistencies.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1605 Critical Error

Cause: The program could not be forked.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1606 Critical Error

Cause: Error deleting MISA volume

Impact: The operation will abort.

Action:
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists it may be due to faulty hardware. First check your hardware for proper installation, and no defects. If no hardware problems are found, contact your NT representative.

NT: If the problem persists after hardware problems have been resolved there may be a software problem. Collect the SEER information, and contact your Northern Telecom support organization (NT–TOR).

1608 Info Error

Cause: The system was unable to shut down a volume server. The volume number that could not be shut down is given in the SEER. The lower level return code describes the reason why the volume server could not be shut down.

Impact: Depends on the reason why the volume server was shut down. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after the disk and hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT_TOR).

1609 Info Error

Cause: Error opening sc_seer.data file

Impact: The file containing the SEER text could not be accessed. Seers will still be printed out but they will not have descriptions.

Action: Please contact your NT representative to report the problem.

NT: Collect the SEER information, and contact your Northern Telecom support organization (NT–TOR).

1610 Info Error

Cause: The system was unable to shut down the helix server. The name of the server that could not be shut down is given in the SEER. The lower level return code provides the reason why the volume server could not be shut down.

Impact: Depends on the reason why the helix server was shut down. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after the hardware problems have been resolved, there may be a software problem. Collect all of the appropriate SEER information and contact your Northern Telecom support organization (NT–TOR).

1611 Info Error

Cause: Failed to audit requested volume.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape. This SEER can also be caused by a faulty message stored in user volume. In order to correct this problem, remove faulty messages and rerun the audit.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1612 Info Error

Cause: Too many retries were attempted on the same operation. Associated SEERs will give the actual cause of the problem.

Impact: Depends on the actual function that was being retried. The operation will normally abort.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1613 Critical Error

Cause: The system detected an invalid filter type, and was unable to perform a data filtering operation.

Impact: The operation will abort.

Action: Please contact your NT representative to report the problem.

NT: This SEER should never happen in the field. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1614 Critical Error

Cause: The system detected an invalid substitution token and was unable to perform a data substitution operation.

Impact: The operation may abort.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: This could be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1615 Critical Error

Cause: Could not copy helix file.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1616 Critical Error

Cause: The hardware database was not created.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1617 Critical Error

Cause: The hardware database could not be opened.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1618 Critical Error

Cause: The hardware database could not be closed.

Impact: The operation will continue without impact.

Action: If the problem persists, collect the SEER information and contact your NT representative.

NT: If the problem persists, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1619 Critical Error

Cause: A component could not be added to the hardware database.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1620 Critical Error

Cause: A search of the hardware database could not be initiated.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: 1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.

2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1621 Critical Error

Cause: Search of the hardware database could not be initiated.

Impact: The operation will abort.

Action 1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.

2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: 1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node).

2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1622 Minor Error

Cause: A DD file could not be closed.

Impact: None.

Action None.

NT If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1623 Critical Error

Cause: A DD record could not be created.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1624 Info Error

Cause: Error locating :RAM or :BOOT100 directory. Too many retries were attempted on the same operation. Associated SEERs will give the actual cause of the problem.

Impact: Depends on the actual function that was being retired. The operation will normally abort.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1625 Critical Error

Cause: A DD commit operation failed.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card

on the MSP node (prime node). If this does not solve the problem, go to action 2.

2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1626 Critical Error

Cause: Could not read a record from the file 1/cust/cptd_data. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort, since it was not able to create the Call Progress Tone Detection configuration file.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1627 Critical Error

Cause: A Cabinet Manager FID could not be obtained.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1628 Critical Error

Cause: A cabinet could not be opened.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1629 Critical Error

Cause: A copy could not be performed on a cabinet file.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after disk and hardware problems are resolved, there is likely a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1630 Minor Error

Cause: The specified cabinet could not be closed.

Impact: The operation will continue without impact.

Action: If the problem persists, collect the SEER data information and contact your NT representative.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1631 Major Error

Cause: The specified file could not be added to a cabinet.

Impact: The operation will abort.

Action: Usually this happens when attempting to close a file that has not been opened or is already closed. The operation will continue without impact.

NT: Usually this happens when attempting to close a file that has not been opened or is already closed. The operation will continue without impact.

1632 Critical Error

Cause: A FIR could not be obtained from the given pathname.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1636 Critical Error

Cause: The hardware detection operation failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1637 Minor Error

Cause: Failed to audit the volume on the disk.

Impact: Usually no impact, but operations can fail afterwards if there is insufficient space on the volume.

Action: None.

NT: None.

1638 Info System

Cause: An audit on a volume server did not complete. The volume number is given in the SEER. The reason why the audit could not be completed is given in the lower–level return code.

Impact: Usually no impact, but operations can fail afterwards if there is not sufficient space on the volume.

Action: No action.

NT: No action.

1639 Critical Error

Cause: The write OS operation failed.

Impact: The operation will abort.

Action: Check the return code of ’nnn’ in the SEER text. Follow instruction of that SEER code. Retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:

1. If the platform is not a new installation, go to action 2. If it is a new installation, try to use the scsi_pkg to initialize to disk first. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1640 Critical Error

Cause: The operation of initialize Disk Control Block (MICB) failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not a new installation, go to action 2. If it is a new installation, try to use the scsi_pkg to initialize to disk first. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1641 Critical Error

Cause: The operation of configure a disk failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not a new installation, go to action 2. If it is a new installation, try to use the scsi_pkg to initialize to disk first. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1643 Critical Error

Cause: The operation of loading OS to the voice nodes failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:

1. Check the diagnostics on that voice node. If necessary, replace the SBC/68K card. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1645 Critical Error

Cause: Could not convert a language from helix format.

Impact: The operation will fail.

Action

1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1646 Critical Error

Cause: Could not find a specific record in the file /l/cust/cpt_data. The record number that could not be found will be given in the SEER. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort as it will not be able to create the Call Progress Tone Detection configuration file.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1647 Critical Error

Cause: The Corporate Directory was not initialized.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1648 Critical Error

Cause: Error opening a file. The file name is specified in the SEER. The lower level return code indicates the actual cause of the problem.

Impact: Depends on the actual function that was performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1649 Critical Error

Cause: Could not allocate Segment.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.

2 If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1650 Critical Error

Cause: Could not allocate Heap using new segment.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1651 Critical Error

Cause: The hardware database could not be modified.

Impact: The operation may abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1652 Critical Error

Cause: The specified volume was not created.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1653 Critical Error

Cause: The MI_LogVol operation failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1654 Critical Error

Cause: The specified volume was not formatted.

Impact: The operation will abort.

Action: The version of Meridian Mail running on the disk does not match the version on the tape. You must either get the correct version of the tape or upgrade the tape to match the disk.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1655 Critical Error

Cause: The disks on the system are not large enough for the specified storage hours.

Impact: The operation will abort.

Action: Ensure that all disks are of the recommended sizes and replace any disks that are not. Follow the system operation checklist and retry the operation. If the problem persists contact your NT representative.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1656 Critical Error

Cause: Failed to validate version on disk matches version on tape.

Impact: The operation will abort.

Action: Follow the system operation checklist, and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for was installed properly and that it does not have any defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1657 Info System

Cause: The cache volumes could not be created on node 2 because it has a smaller than normal disk.

Impact: The system may slow down during periods of heavy traffic.

Action: None. If periods of heavy traffic are expected, replace the disk with a larger one.

NT: None.

1658 Critical Error

Cause: Disk drive not accessible to node

Impact: The operation will fail.

Action:
1. Check the return code from the lower level for the action to take. If this does not solve the problem, goto action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists it may be due to faulty hardware. First check your hardware for proper installation, and no defects. If no hardware problems are found, contact your NT representative.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information, and contact your Northern Telecom support organization (NT–TOR).

1660 Critical Error

Cause: The Guest Access Console (GAC) names could not be retrieved from the hardware database

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. Use the MD_MA to check the data port definition to see if any GAC are defined. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1661 Critical Error

Cause: Failed to obtain statistics for a volume server.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the Volume Server (VS) is running, go to action 2. If Volume Server (VS) is not running, check related SEERs and take the recovery action specified for them. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1662 Critical Error

Cause: Failed to shutdown the organization directory server (DR_Server).

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1663 Critical Error

Cause: Failed to audit the organization directory server (DR_Server).

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1664 Critical Error

Cause: Organization directory server (DR_Server) audit wait failed.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1665 Critical Error

Cause: Failed to perform validation of user cabinet against the organization directory.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1666 Critical Error

Cause: Failed to compress a voice volume.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1667 Critical Error

Cause: Although voice volume compression is alright, it failed to compress to the desired size.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1668 Critical Error

Cause: Failed to alter the voice volume size.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1669 Critical Error

Cause: Failed to expand the voice volume.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1670 Critical Error

Cause: Failed to get the Volume Server Operation Measurement data.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:

1. If the Volume Server (VS) is running, go to action 2. If Volume Server (VS) is not running, check the related SEERs and take the proper recovery action. If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1671 Critical Error

Cause: Index into feature array not found.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1672 Critical Error

Cause: Error copying a helix file. The file name is specified in the SEER. The lower level return code indicates the actual cause of the problem.

Impact: Depends on the function performed at the time. Refer to related SEERs and messages displayed in order to determine the impact.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1673 Critical Error

Cause: Could not create the file /l/dsp/dsp_config. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort as it could not create the Call Progress Tone Detection configuration file.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1674 Critical Error

Cause: Could not get the statistics for a File server.

Impact: The operation has failed.

Action: One or more of the drives need to be replaced with a larger drive. If a larger drive is not available, run Standardized Volume Sizes, and boot back into service.

NT: The customer requires a larger drive. See the *Installation Guide* or the SEER printout for the minimum Volume Size required. Note that a larger disk is always accepted.

1675 Critical Error

Cause: Error determining the node number from the disk name. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

Action: Check the hardware. Specifically check that all of the nodes are operating correctly.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1676 Critical Error

Cause: Failed to add a language record to the system profile.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1677 Critical Error

Cause: Failed to initialize the network database.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1679 Critical Error

Cause: Error determining the free space on a volume. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

Action: First check your hardware for proper installation and defects. Specifically check that all of the nodes are operating properly. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1680 Info Error

Cause: Error shutting down the disk operations controlling the task on the MSP node (prime node). The lower level return code will indicate the actual cause of the problem.

Impact: Depends on what operations follow. Look at the SEERs following this one to determine the impact.

Action: If the operation fails, then follow the system operation checklist, and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1681 Info Error

Cause: Error shutting down a disk operations task. The node number can be determined from the numeric characters at the end of the task name ‘SCNV’ in the SEER. The lower level return code will indicate the actual cause of the problem.

Impact: Depends on what operations follow. Look at the SEERs that follow this one to determine the impact of the problem.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1683 Info System

Cause: Error deleting a helix file. The lower level return code will indicate the actual cause of the problem.

Impact: None, but could indicate possible problems with the disk, tape, or file system.

Action: None.

NT: None.

1684 Critical Error

Cause: Error starting up the organizational directory (DR). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1685 Critical Error

Cause: Error checking the organizational directory (DR). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, contact your NT support organization.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1686 Info Error

Cause: A timeout occurred while waiting for a task to start up. The task name is printed in the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed on the screen to determine the impact.

Action: If the operation fails, follow the system operation checklist and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1687 Info Error

Cause: A timeout occurred while waiting for a task to shut down. It is not possible to determine the name of the task from the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed on the screen to determine the impact.

Action: If the operation fails, follow the system operation checklist and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1689 Info Error

Cause: Error determining the size of a voice services file. The name of the file is printed in the SEER.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1690 Critical Error

Cause: Failed to open a Voice Service file.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1691 Critical Error

Cause: Error starting the Program Resource Manager (PRM). The text in the SEER will indicate the problem.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1692 Critical Error

Cause: The heap was not available to determine the nodes in the system.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1693 Critical Error

Cause: Error obtaining the node information from the Program Resource Mananger (PRM). The lower level return code will indicate the actual cause of the problem.

Impact: The operation will fail.

Action: Follow the system operation checklist, and retry the operation.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1694 Critical Error

Cause: Failed to change password to the default password.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1695 Critical Error

Cause: Error extracting the boot track file names from the system record. The lower level return code will indicate the actual cause of the problem.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization.

1696 Critical Error

Cause: Failed to add system profile.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1697 Critical Error

Cause: Failed to add first customer profile.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1698 Critical Error

Cause: Not enough room on any volume to move Voice Services to.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1699 Critical Error

Cause: Internal software error. An incorrect fill type was supplied. The lower level return code identifies the incorrect fill type.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

Class 17 System Operation (SYSOP)

Introduction

System Operation installs or updates the software on a hardware platform.

SEERs may occur during one of following system operations (SYSOP) functions:

- installation
- upgrade
- conversion
- feature expansion
- hardware modification (add channels, add nodes)
- platform conversion
- disk operations (storages expansion, disk-to-disk back up, disk shutdowns).

System Operation Checklist

To resolve most SEERs in this class the Action required is to “Follow the system operation checklist.” The checklist consists of the following steps:

- power the system off
- check that all boards are properly inserted
- check that all cables are connected
- check that the tape is inserted into the drive and that the drive door is closed
- power on system and check that the power has been turned on for all nodes

- after tape boots, type <Ctrl> **W** and a ‘Console and Printer’ box will pop up. Type **P** to generate a more detailed printout of your operation. If the operation completes successfully, type <Ctrl> **W**, and after the ‘Console and Printer’ box pops up press **P** followed by <Ctrl> <Print Screen>. This will take the system out of print mode. If the operation fails again please have the printout ready when talking to your NT support organization.

Software configuration problems are often caused by tape errors. A complete list of SCSI device sense key and error codes can be found in Appendix A.

Reports

1701 Critical Error

Cause: Bad system type detected.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT:
1. If the problem persists after tape and hardware problems are resolved, it is likely a software problem.
2. Use MD_MA to check the System Record.
3. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1702 Critical Error

Cause: The data required by a system operation was not found in the data files.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your

hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT:
1. If the problem persists after tape and hardware problems are resolved, it is likely a software problem.
2. Use MD_MA to check the system record.
3. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1703 Info System

Cause: User aborted moving the voice service cabinet.

Impact: None.

Action: None.

NT: None.

1704 Critical Error

Cause: Error occurs while moving voice services to another volume. The lower level return code will indicate the actual cause of the problem.

Impact: The moving of voice services failed.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1705 Critical Error

Cause: Write to Billing Control Table failed.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.

2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1708 Info System

Cause: Moving of Voice Services successfully completed.

Impact: None.

Action: None.

NT: None.

1709 Critical Error

Cause: Adding switch records failed.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1713 Critical Error

Cause: Failed to copy voice service cabinet.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your

hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1714 Critical Error

Cause: Error opening the organizational directory while trying to move voice services.

Impact: The moving of voice services failed.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1715 Critical Error

Cause: Failed to find users.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1716 Critical Error

Cause: Failed to move user volume.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1719 Critical Error

Cause: Number of nodes cannot be reduced.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: Take the following actions:

1. Check with the customer why the number of nodes is less than before. The number of nodes cannot be decreased. If hardware detection failed to uncover this, take step 2.
2. If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information, and contact your Northern Telecom support organization (NT_TOR).

1720 Critical Error

Cause: Failed to obtain the UAT/MAT Data Port names.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1721 Critical Error

Cause: Failed to adjust the volume on the disk.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1722 Critical Error

Cause: Failed to adjust the user on the volume.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Verify that the number of users on the volume which the adjust failed to process should not exceed the engineering guidelines. Modify the system to conform to engineering specifications for the number of users, then re-attempt the conversion. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. Check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely to be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1723 Critical Error

Cause: Error syncing voice service definitions.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware

for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1724 Critical Error

Cause: Error updating organization directory (DR) for voice service definitions

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1725 Critical Error

Cause: Error syncing voice form for a given volume.

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1726 Critical Error

Cause: Not enough room on disk for the requested number of languages.

Impact: The operation will abort.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.

2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT-TOR).

1733 Critical Error

Cause: Tape retensioning failed

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your NT representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1735 Info System

Cause: The system already has the maximum number of languages.

Impact: No new languages can be added.

Action: None.

NT: None.

1736 Critical Error

Cause: Error trying to open the source cabinet while trying to move a file. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1737 Critical Error

Cause: Error trying to open the destination cabinet while trying to move a file. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1738 Critical Error

Cause: Error determining if a file exists. The SEER text specifies the cabinet name. The lower level return code indicates the cause of the problem.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1739 Critical Error

Cause: Error deleting the old voice services cabinet. The lower level return code indicates the cause of the problem.

Impact: The operation aborts.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1740 Info System

Cause: Warning that voice services can not be moved in Option 11 systems.

Impact: None.

Action: None.

NT: None.

1741 Critical Error

Cause: Error registering the volume operations task in the name server. The cause of the problem is not available in the SEER.

Impact: The operation will fail.

Action: Look for other SEERs to determine the cause of the problem. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1742 Info Error

Cause: Error de–registering the volume operations task from the name server. The cause of the problem is not available in the SEER.

Impact: Depends on the actual function that was being performed. Refer to related SEERs and messages displayed to the screen to determine the impact.

Action: If the operation fails, then follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1743 Critical Error

Cause: Error determining the state of the disks on a node. The lower level return code is given in Appendix A of the SEER manual under the Major Heading ‘Disk Syncing

Error Codes' and minor heading 'sd_info'. The SCSI port for the query is also specified in the SEER.

Impact: The operation will fail.

Action: This is most likely to be a SCSI hardware or cabling problem. Check and correct the SCSI subsystem for the node. Run off–line diagnostics on the node. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1744 Critical Error

Cause: Error enabling SCSI SEER reporting.

Impact: The operation will fail.

Action: This is most likely to be a SCSI hardware or cabling problem. Check and correct the SCSI subsystem for the node. Run off–line diagnostics on the node. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1745 Critical Error

Cause: Error during disk operation. The text of the SEER specifies the disk operation number, the SCSI IDs of the disks and the lower level return code. The disk operation and lower level return code can be decoded from the Disk Operation Lower Level Return Codes list found in the appendix of this manual:

Impact: The operation will fail.

Action: This is most likely to be a SCSI hardware or cabling problem. Check and correct the SCSI subsystem for the node. Run off–line diagnostics on the node. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1746 Critical Error

Cause: Error detected during disk operation. The text of the SEER contains the list of nodes that the disk operation affected and the operation number which can be decoded from the Disk Operation Lower Level Return Codes list found in the appendix of this manual, and a lower level return code, which is available in the table or part of a task result. There can sometimes be SEERs from individual nodes describing the same problem.

Impact: The operation will fail.

Action: This is most likely to be a SCSI hardware or cabling problem. Check and correct the SCSI subsystem for the node. Run off–line diagnostics on the node. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1747 Critical Error

Cause: Error determining the state of the disks on a node. The lower level return code can be a task result or an error described in Appendix A of the SEER manual under the Major Heading ‘Disk Syncing Error Codes’ and minor heading ‘sd_info’.

Impact: The operation will fail.

Action: This is most likely to be a SCSI hardware or cabling problem. Check and correct the SCSI subsystem for the node. Run off–line diagnostics on the node. Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1748 Critical Error

Cause: Error registering the volume control task in the name server.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1749 Critical Error

Cause: Error locating the node volume task in the name server, as part of a disk operation. The SEER text also specifies the node number and the disk operation number. There is no lower level return code.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1750 Critical Error

Cause: Error locating the node volume task in the name server, as part of obtaining the disk information. The SEER text also specifies the node number and the SCSI port number. There is no lower level return code.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1751 Critical Error

Cause: Error sending information to the node volume task, as part of a disk operation. The SEER text also specifies the node number and the disk operation number. There is no lower level return code.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1752 Critical Error

Cause: Error receiving information from the node volume task, as part of a disk operation. The SEER text also specifies the node number. The lower level return code can be a task result, in which case the node number will be invalid, or an error from the disk operation, in which case there should be an associated 1745 SEER.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1753 Info Debug

Cause: An error occurred when deregistering the volume control task.

Impact: None. Could indicate that there were other problems in the system.

Action: None.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1754 Critical Error

Cause: Task error during initiation of the volume control task.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Northern Telecom representative for a new tape.

NT: Take the following actions:

1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5 M byte memory card on the MSP node (prime node).
2. If the problem persists after tape and hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1755 Critical Error

Cause: Task error creating buffers for the volume control task.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1756 Critical Error

Cause: Error logging on to a helix server. The server name is given in the SEER text.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1757 Critical Error

Cause: Error allocating memory from heap.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Northern Telecom representative for a new tape.

NT:
1. If the platform is not Modular Option, go to action 2. If the platform is Modular Option, check to see that the customer has a 2.5M byte card on the MSP node (prime node). If this does not solve the problem, go to action 2.
2. If the problem persists after hardware and tape problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1779 Critical Error

Cause: Error resetting a specific node.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.

2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Northern Telecom representative for a new tape.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1784 Critical Error

Cause: Failed to detect the SBC card.

Action: Check all of the hardware cards. If the problem persists, it may be due to faulty hardware. Replace the SBC card on Node 1.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1785 Critical Error

Cause: Failed to search the data port in the MSP node (prime node).

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Norther Telecom representative for a new tape.

NT: If the problem persists after tape and hardware problems are resolved, it is likely a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

1786 Critical Error

Cause: Error sending volume information to a node volume task. The destination node number and volume number are printed in the SEER text. The lower level return code is a task result.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.

2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Northern Telecom representative for a new tape.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1787 Critical Error

Cause: Error sending volume standardization command to a node volume task. The destination node number and operation number are printed in the SEER text. The lower level return code is a task result.

Impact: The operation will fail.

Action
1. Check the return code from the lower level for the action to take. If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists, it may be due to faulty hardware or a bad tape. First check your hardware for proper installation and defects. If no hardware problems are found, contact your Northern Telecom representative for a new tape.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1788 Critical Error

Cause: Error accepting a reply from a node volume task, as part of volume standardization. The destination node number is printed in the SEER text. The lower level return code can be:

- a task result, in which case the node number will be invalid
- an error from the disk operation, in which case there should be an associated class 17 SEERs.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1789 Critical Error

Cause: Disks that were expected to be shadowed for a specific operation are not in the shadowed state.

Impact: There will be no way to recover the system if the operation fails.

Action: Shadow disks and retry the operation.

NT: None.

1790 Info System

Cause: User aborted operation that required disks to be in a shadowed state.

Impact: None.

Action: None.

NT: None.

1791 Info Admin

Cause: User elected to continue an operation that required disks to be in a shadowed state.

Impact: None.

Action: None.

NT: None.

1793 Critical Error

Cause: An invalid SCSI port was specified.

Impact: The operation will fail.

Action: Follow the system operation checklist and retry the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom support organization (NT–TOR).

1794 Critical Error

Cause: During the operation, the user has failed to enter a valid keyccode and has selected to give up retrying.

Impact: The operation has aborted, however the system may be rebooted into service.

Action: Call your NT representative to obtain a new keycode.

NT: Generate a new keycode for the customer.

1795 Critical Error

Cause: Attempt to read serial number from the switch has failed

Impact: The operation will not be able to continue.

Action: Ensure that the CSL link between Meridian Mail and the switch is enabled, and retry the operation.

NT: Ensure that the CSL link between Meridian Mail and the switch is enabled and retry the operation. If the problem persists collect the SEER information and contact your Northern Telecom support organization (NT–TOR)

1796 Critical Error

Cause: Error reading font data file (FONTFILE)

Impact: The operation will abort.

Action: Follow the system operation checklist and retry the operation. If the problem persists contact your NT representative.

NT: Send a new tape to the customer.

1797 Critical Error

Cause: An error has occurred while decoding the keycode.

Impact: The operation will abort, however the system may be rebooted into service.

Action: Call your NT representative to obtain a new keycode.

NT: Generate a new keycode for the customer.

1798 Critical Error

Cause: Error creating font record.

Impact: The operation will abort.

Action:
1. Check the return code from the lower level for the action to If this does not solve the problem, go to action 2.
2. Follow the system operation checklist and retry the operation. If the problem persists it may be due to faulty hardware. First check your hardware for proper installation, and no defects. If no hard are found, contact your NT representative.

NT: If the problem persists there may be a software problem. Collect the SEER information, and contact your Northern Telecom support organization.

1799 Critical Error

Cause: An attempt was made to add HVS to a system using a feature expansion.

Impact: The operation will abort.

Action: Obtain a new keycode

NT: A system cannot be feature expanded to include HVS. The user must reinstall the system and lose all information.

Class 20 Voice Handler (VH)

Introduction

The Voice Handler is a procedural interface for applications that provides access to, and control of, voice records and voice segments. The Voice Handler:

- initializes (session start) and releases (session termination) a voice channel, releases memory, and stops internal tasks.
- creates, opens, closes, and deletes voice records.
- plays a voice record, skips forward and backward in playback, records a voice record, and stops playback and recording.
- obtains the total voice segment duration and changes the size limit of a voice segment.
- initializes and releases system and service prompt files.
- plays and stops the playback of a voice prompt as defined by a template.

Some voice applications call the Voice Handler synchronously, and wait for it to complete its given task before they continue. Other voice applications do not call the Voice Handler synchronously, but provide a Voice I/O Entry to the Voice Handler and continue to run at the same time as the Voice Handler.

The VH and FH (FAX Handler) are closely related. The FH is a procedural interface to the same I/O task used by the VH (called the VPIO). Class 20 SEER codes can be emitted by the VH or the VPIO task. Hence, class 20 SEERs may be observed when the VPIO task is operating in fax mode. Refer to the chapter “Class 81 FAX Handler (FH)” for more information on the FH.

Impact of VH errors

Different voice and fax applications may react differently to the same Voice Handler error. For example, if the Voice Handler cannot find any voice records, one application may terminate the call, another application might try the call again, and another might play a message like “You have no voice messages” to the user.

These SEERs are reported either:

- as part of the class 20 SEERs where the SEERs are generated by the application’s internal VPIO task, or
- as part of the application program’s SEERs. The class 20 return codes (for example: 2041) may be included in a SEER of this type.

Content of Class 20 SEERs

This chapter is primarily concerned with SEERs reported as part of the class 20 SEERs. These SEERs contain the following types of information:

1 Voice Handler error codes and text descriptions about the routine in which the error occurred, the nature of the error, and where appropriate:

   a. the task result

   b. the current voice fax operation that the internal task is executing:

0	vh_cNoOpr	11	vh_cUnlink
1	vh_cPlayVoice	12	fh_cTransmitFax
2	vh_cPlaySkip	13	fh_cTrimTab
3	vh_cRecord	14	fh_cReceiveFax
4	vh_cPause	15	fh_cAbortFax
5	vh_cContinue	16	fh_cCloseSession
6	vh_cStopVoice		
7	vh_cStopPrompt		
8	vh_cPlayPrompt		
9	vh_cQueryCurUn		
10	vh_cSetVolume		

   c. the message state of the internal task regarding the asynchronous activity of the voice handler:

0	msUndefined
1	msInit
2	msIdle

3 msSetPly (setting up for play operation)
4 msPlay
5 msPlyEndP (shutting down play operation)
6 msSetPPauseP (setting up for pause while in play)
7 msPPauseP (pause while in play)
8 msSetPContP (setting up to continue playback)
9 msPlyStopP (playback stopped state)
10 msSetRecP (setting up for recording)
11 msRecord
12 msSetRPauseP (setting up for pause while recording)
13 msRPauseP (pause while in record)
14 msSetRContP (setting up to continue recording)
15 msLongSilP (long silence while in recording)
16 msRecStopP (recording stopped state)
17 Switching to another VPH
18 Setting up to Transmit a Fax
19 Transmitting a fax
20 Waiting for transmit fax data
21 Waiting for Retransmit data
22 Cleaning up fax session
23 Finished fax transmit
24 Setting up for fax receive
25 Receiving a fax
26 Cleaning up fax receive session
27 Finished fax receive

d. the application command currently in progress:

0 acUndefined
1 acInit
2 acIdle
3 acPlyPauseP (pause while in play)
4 acPlay
5 acSkipP (skip forward or skip backward)
6 acPrompting
7 acRecPauseP (pause while in record)
8 acRecord
9 acStopVoice
10 acStopPrompt
11 acTransmitFax
12 acReceiveFax

13 acAbortFax
14 acCloseSession
15 acError

2 Errors related to VP Handler communication such as send failures, response time-outs, aborted recordings, and bad VP Handler commands and data. The associated VP Handler will be reported in the formatted RTID (VPH remote task ID in hexadecimal).

3 Return codes from lower level software, such as VS or DD.

Reports

2000 Critical Error

Cause: Failure to allocate memory from the heap passed in by the application.

Impact: The impact depends on the current operation of the VH; either the prompt files are not initialized, or the current recording fails.

Action: Disable then re-enable the corresponding Voice-Port.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

2001 Minor Error

Cause: Integrity failures.

1. New Pool failures at load time.
2. Bad command codes or record modes encountered and not immediately detected when first issued by the voice application (for example, asynchronous). These should result only if processor memory is corrupt.
3. Invalid VP Handler silence unit information encountered.
4. Voice unit data, as stored in the voice block, seems to be corrupted when traversing the voice block for appends or inserts while finishing the recording.
5. Failure to locate the correct position (unit or duration), or voice block, within a voice segment for playing, skipping forward or backward, or recording.

The SEER displays the task result or actual bad codes or modes encountered. If an integrity failure occurs in skipping forward or backward the output contains:

— an error string that identifies the error location,

— the current unit for errors occurring before skip calculation and after the find block routine has been called,

— the current duration for errors occurring after the skip calculation,

— 10 byte hexadecimal dump of the FID of the file containing the voice and voice paragraph records,

— “PlySkp: Bef: ”, <current unit>, <FID>

— “PlySkp: Aft: ”, <current duration>, <FID>

— “PlySkp: Blk: ”, <current unit>, <FID>

Impact: The voice application will react to the error appropriately.

Action: Run Bootup diagnostics to determine if there are processor memory problems, and where appropriate, save the recording and contact your NT support organization.

NT: Look for corrupt data in the voice records and voice blocks.

2003 Minor Error

Cause: The VH received a command that was not legal for the current state of the VH. This may occur, for example, if a fax command was received while the VH was operating in voice mode. This SEER may indicate a memory corruption problem.

Impact: The command is rejected by the VH. The current session may not operate as expected.

Action: If the error persists, do the following: disable the card with the affected port, run diagnostics on that card, and re–enable the card.

NT: This may indicate a software design error exists. Contact the design group.

2004 Minor Error

Cause:

1. If the text says “VcRspTmO in MsgState: <message state>”, the VH timed out while waiting for a response from the application or the VP Handler.
2. If the text says “SetVHTimer: Unknown Msg State = <message state>”, an internal call has been made to SetVHTimer for an unknown message state.
3. If the text says,“VcRspTmO:Unknown MsgState,” the channel was released while still in recording state, as indicated by the text.

Impact: Cases 1 & 2. The VPIO task will cause an EXCEPTION to be raised in the application which will stop the VPIO task, clean up resources, and stop itself.

Case 3. The Voice Handler will not save the recording.

Action: Check if there are any VPH SEERs occurring (class 24). If there are, there may be a voice port problem. Disable and re-enable the port defined in the VPH SEERs in the HWLOC field. If these errors persist, contact your NT support organization.

NT: A software design error may exist. Contact the design group.

2005 Minor Error

Cause:
1. If the text says "PrQ has unused data.1st SeqNum =, <prompt data sequence ID>", there is no matching prompt playback command in the command queue for remaining data in the prompt data queue.
2. The voice application has called a function that is not currently supported, as indicated by the text.

Impact: Case 1. The remaining data in prompt data queue are discarded.

Case 2. The Voice Handler rejects the command.

Action: Run voice card diagnostics. Do a memory test and login to any mailbox to see if the prompt files are corrupted. If these errors persist, contact your NT support organization.

NT: Prompt files may need to be reinstalled, or there may be a design error.

2010 Minor Error

Cause: The application requested the VH to manipulate (i.e., play, record) a voice file that has not been opened.

Impact: The file will not be played or recorded.

Action: Disable then re-enable the corresponding Voice-Port.

NT: If the error persists, verify that the file and record to be manipulated actually exist, and that they are not corrupted on the disk.

2012 Minor Error

Cause: The voice application is trying to open a record which is not a voice record.

Impact: The voice application will react appropriately.

Action: If this error persists with a particular recording, save the recording and contact your NT support organization.

NT: Save the record and find out the FID of the record to see if there is any memory corruption in the disk.

2013 Minor Error

Cause: While skipping forward or backward during playback, the voice segment's paragraph record could not be located.

Impact: The voice application will react appropriately.

Action: If this error persists with a particular recording, save the recording and contact your NT support organization.

NT: Save the record and find out the FID of the record to see if there is any memory corruption in the disk.

2015 Minor Error

Cause: Bad prompt set was submitted by the application.

Impact: Prompt will not play.

Action: Reinstall prompt files.

NT: If reinstall fails and the problem still persists, contact your Northern Telecom support organization.

2040 Minor Error

Cause: The VP Handler has not replied to the VPIO task within a set time, causing the current operation to stop. For some VP Handler messages, a VP TimeOut is announced only after a retry.

Impact: The Voice Handler clears the command and prompt data queues, sets its operation code to no-op, resets its state to idle, and clears the Voice Handler timer.

Action: If the error occurs while the disks are being audited, then the problem is transient and can be ignored. Otherwise, disable the voice card where the affected voice port resides and perform off-line diagnostics on the card. If this error persists, contact your NT support organization.

NT: Try replacing the voice card. If the error persists, contact Northern Telecom's development organization (NT–TOR).

2041 Minor Error

Cause 1. If the text says "Vpio:DoTermRd: Bad RBuffAddr sent by VPH", the Voice Handler has received an unexpected or invalid playback termination code and the code was rejected.

2. If the text says “Vpio:VPReq:Bad command sent by VP, cmd=<cmd>, msgstate=<state>, VPH<HWLOC>”, the Voice Handler has received an unexpected or invalid VP Handler command.
3. If the text says “Tasking Error<TaskResult>, sending to VPH<RTID>, VPH<HWLOC>”, a send to VP Handler has failed on the sending or receiving side.

Impact:
- Case 1. Minor to the Voice Handler.
- Case 2. Minor to the Voice Handler, but it resets its timer.
- Case 3. The Voice Handler clears the command and prompt data queues, sets its operation code to no-op, resets its state to idle, and clears its timer.

Action: Disable the voice card where the affected voice port resides and perform off-line diagnostics on the card.

NT: This may indicate a software design error.

2042 Minor Error

Cause: An expected VP Handler silence message has been lost.

Impact: The actual voice data stored in the voice blocks is not affected. The DD records maintained by Voice Handler, to reflect the current recording’s voice and silence phases, will be written to disk as if the lost silence was not expected (for example, some silence phases will not exist). This may affect playing, skipping, or recording from the current position within this voice segment.

Action: Disable the voice card where the affected voice port resides and perform off-line diagnostics on the card. If this error persists, contact your NT support organization.

NT: The number of VPH or VH buffers may need to be re–engineered if the problem is not transient.

2043 Minor Error

Cause: If the text says “Bad system/service prompt file segment index:, <index posn in file>, <message state>, the prompt segment (not a spoken name) cannot be indexed (using file system ddindex command), cannot be read (using file-system ddread command), or has no voice data.

Impact: The Voice Handler skips over this bad prompt segment and tries to process the next prompt segment. If this is the last prompt segment for a play prompt request which requires a reply to the application, then the application will be told about this error, and the voice application will react appropriately.

Action: Contact your Northern Telecom support organization

NT: Run disk diagnostics. Prompt files may need to be reinstalled.

2053 Minor Error

Cause: If the text says “Bad spoken name. Check FID: <FID> because , <original error>, <message state>”, one of the following things happened:

1. The voice record in the spoken name file was not found
2. The file specified by the FID cannot be found
3. A disk read of the voice record has failed

If the text says “Bad spoken name. Check FID: <FID> because , 0, <message state>”, there are no voice blocks for the spoken name. This means that nothing was recorded or the spoken name was recorded with the handset on hook.

The return code isolates the cause.

Impact: The voice application will react appropriately.

Action: Find out why the bad spoken name exists and if any action has to be taken. For example, an old voice mail message may contain a reference to a spoken name of a person who has left the company and whose spoken name has been removed. Look up the return code for specific information.

NT: None

2090 Minor Error

Cause: A tasking error occured in communication between the application and the VPIO task, between the VPIO task and the application, or the VPIO task could not be initiated. If the text says “Tasking Error <error code>, sending to Application, Event <EventCode>,” then the event code indicates the event that is being passed to the application. The possible event codes are as follows:

- 2050 – playback has reached the end of a voice segment
- 2051 – acknowledgment of the end of a prompt playback
- 2052 – the recording limit has been exceeded
- 2053 – a bad spoken name is being reported
- 2054 – timeout on long silence

Impact: The message being sent is discarded. The impact will depend on which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

Action: If further problems are observed with that voice port, disable the port indicated in the SEER's HWLOC and re–enable it. If the problem is not corrected, reboot the system and check the result of the startup diagnostics. If the problem persists, contact your NT support organization.

NT: This may indicate a software design error.

2091 Minor Error

Cause: A VPIO task was unable to communicate with an application.

Impact: The message being sent is discarded. The impact will depend on which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

Action: If further problems are observed with that voice port, disable the port indicated in the SEER's HWLOC and re–enable it. If the problem is not corrected, reboot the system and check the result of the startup diagnostics. If the problem persists, contact your NT support organization.

NT: This may indicate a software design error.

2099 Minor Error

Cause: Occasionally, the Voice Handler produces SEERs for errors that it found but did not create. The Voice Handler places these SEERs in the class: vh_NonVHError. A non-VH error has a major or minor priority. Some non-VH errors, messages and priorities are as follows:

1. File system errors while opening a voice record

   Message: OpenV, (non-VH error)

   Priority: Major

2. File system errors while finishing a recording

   Message: FiniV, (non-VH error)

   Priority: Major

3. Third party read errors during playback

   Message: (non-VH error): TpRead block:, (relative voice block #), (message state)

   Priority: Major

4. Third party write errors while recording

   Message: (non-VH error):DoWBuf:VBlock is lost:, (write buffer address), (message state)

Priority: Major

5. Communication failed while sending file system errors to voice application

   Message: (non-VH error):SndSuErr:TskErr:, (Tasking Error)

   Priority: Minor

6. Aborted recording due to a file system error

   Message: (non-VH error): RTID (VPH remote task ID in hexadecimal): (procedure or reason): OprCode:, (operation), (message state)

   Priority: Major

Impact:

Case 1. VH rejects request to open record. The voice application determines the action to take.

Case 2. The recording being finished may not be saved correctly on disk. The voice application will act appropriately.

Case 3. The block to be played will not be played. Playback continues.

Case 4. The block to be recorded will not be recorded. Recording continues.

Case 5. To the Voice Handler the impact is minor, so it takes no corrective action.

Case 6. The system will try to save the recording up to the point at which the abort occurred.

Action: Check the corresponding file system error code and surrounding SEERs. If these errors persist, save the recording and contact your NT support organization.

NT: This is a file system problem. Verify that the volumes and disk are sane.

Class 21 Voice Prompt (VX)

Introduction

The Voice Prompt (VX) program is called by the voice application to play prompts. Voice Prompt errors can:

- prevent playing of voice prompts if an error occurs at the initialization level.
- prevent playback or cause partial playback of a particular prompt.
- cause unpredictable results if the software requires a prompt to finish playback and execute next step.

A class 21 SEER contains:

- lower level return code, such as a DD return code.
- template ID of the prompt (if relevant). This ID is printed in DECIMAL.

Reports

2101 Minor Error

Cause: While a voice application was providing input to a voice prompt template, one of the following things happened:

1. If the text says, “TransPrompt: Input to variable field not found” N1, N2, where N1 is the field number, and N2 is the ID of the prompt being played, a voice prompt template did not receive variable input from a voice application.
2. If the text says, “TransPrompt: Input to spoken name field not found” N1, where N1 is the ID of the prompt being played, a voice template did not receive a spoken name as input from a voice application.

Impact: The prompt will probably not be played or it will be partially played. A non-zero VX return code will be returned to the application.

Action: Run bootup diagnostics, and try disabling and re–enabling the port defined in the HWLOC field of the SEER. Do a memory test, and try disabling and re-enabling the channel. Contact your NT support organization if the problem persists.

NT: Prompt files may be corrupted on disk. Reinstall the prompt files for the bad language. There may be an application software design error. If the problem persists, contact the NT Development organization.

2102 Minor Error

Cause: A variable field received data that was out of the correct range for one of the following reasons:

1. If the text says, “TransField: Maximum length exceeded for compound data”, N1, N2, where N1 is the maximum length and N2 is the ID of the prompt being played, a voice prompt template received compound data from a voice application that exceeded the maximum length.
2. IF the text says, “TransField: Data out–of–range. Elmnt Indx and template”, N1, N2, where N1 is the element index and N2 is the Template ID, a voice prompt template received data from a voice application that was out of range.

Impact: The prompt will probably not be played or it will be partially played. A non-zero VX return code will be returned to the application.

Action: Run bootup diagnostics; memory may be bad. Check if the system “clock” has been setup in the system. Contact your NT support organization if the problem persists.

NT: Prompts may be corrupted. Reinstall the bad language. There may be an application design error. If the problem persists, contact your NT Development organization.

2103 Minor Error

Cause: If the text says, “VX_Play*n*Fld: Template ID is out–of–range”, N1, N2, where N1 is the highest template ID, and N2 is the ID of the prompt requested to be played, the template N2 ID is out of range.

Impact: No prompt can be played. A non-zero return code will be returned to the application.

Action: Run bootup diagnostics; memory may be bad. Contact your NT support organization if the problem persists.

NT: There may be an application software error. Contact your NT Development organization.

2104 Minor Error

Cause: One of the following problems was encountered during initialization of the voice prompt files:

1. If the text says “vx_init: Failed to initialize prompt files” N1, where N1 is the return code from the filing system referring to the reason for failure, the Voice Handler failed to initialize the prompt files.
2. If the text says “vx_init: Unable to link FCTabFCB” N1, where N1 is a return code from the filing system referring to the reason for failure, the field component could not be linked.
3. If the text says “vx_init: Cannot find first field component record” N1, where N1 is a return code from the filing system referring to the reason for failure, the template FCBs could not be linked.
4. If the text says “vx_init: Unable to read in template and segment totals” N1, where N1 is a return code from the filing system referring to the reason for failure, the first voice segment record could not be found.
5. If the text says “vx_init: Unable to link TemplFCB” N1, where N1 is a return code from the filing system referring to the reason for failure, the first template definition record could not be found.
6. If the text says “Unable to find first voice segment record” N1, where N1 is a return code from the filing system referring to the reason for failure, the first field component record could not be found.
7. If the text says “Unable to index to last voice segment record” N1, where N1 is a return code from the filing system referring to the reason for failure, the segment and template totals could not be read.
8. If the text says “Unable to find first template definition record” N1, where N1 is a return code from the filing system referring to the reason for failure, the last voice segment record could not be indexed.

The return code isolates the cause.

Impact: The prompt files will not be initialized, and the voice application will not operate. Also, previously linked files will be un-linked.

Action: Log in to a mailbox to see if the prompt file is corrupted. Run diagnostics on the hard disk of the volume holding the prompt file VS2 to determine if there is any data corruption. Look up the second return code for more information. Contact your NT support organization if the problem persists.

NT: Prompts files may be corrupted. Reinstall the prompt files. There may be an application design error. If the problem persists, contact your Northern Telecom development organization (NT-TOR).

2105 Minor Error

Cause: During the translation of a field of the voice prompt template into one or more voice prompt segments, one of two things happened:

1. If the text says “Simple field max. length exceeded after conversion”, the maximum length for a simple field was exceeded, after being converted from a compound field.
2. If the text says “Unable to read in next field component record”, a field component record could not be read as indicated by the SEER text. Extra data following the SEER is the prompt ID that is causing the problem. This gives the prompt that has the problem.

The return code isolates the cause.

Impact: The prompt probably will not be played or it might be partially played. A non-zero VX return code will be returned to the application.

Action: Log into the system to see if the prompt file is corrupted. Run diagnostics on the hard disk of the volume holding the prompt file VS2 to determine if there is any data corruption. Look up the second return code for more information. Contact your NT support organization if the problem persists.

NT: Prompt files may be corrupted on disk. Reinstall the prompt files for the bad language. There may be an application software design error. If the problem persists, contact the NT Development organization.

2106 Minor Error

Cause: During the translation of a voice prompt template into a sequence of one or more voice prompt segments, one of the following things happened:

1. If the text says “TransPrompt: Unable to link Template FCB” N1, N2, where N1 is a return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, a template FCB could not be linked.
2. If the text says “Unable to index to template definition record,” N1, N2, where N1 is a return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, a required template definition record could not be indexed.
3. If the text says “Unable to read in template definition record” N1, N2, where N1 is the return code from the file system referring to the reason for failure,

and N2 is the ID of the prompt being played, the required template definition record could not be read.

4. If the text says “TransPrompt: Unable to read in next field component record” N1, N2, where N1 is the return code from the file system referring to the reason for failure, and N2 is the ID of the prompt being played, the field component record could not be read.

The return code isolates the cause.

Impact: The prompt will not be played at all.

Action: Log in to the system to see if the prompt file is corrupted. Run diagnostics on the hard disk or the volume holding the prompt file VS2 to determine if there is any data corruption. Note whether any portion of the template is played. Look up the second return code for more information. Contact your NT support organization if the problem persists.

NT: Prompts files may be corrupted. Reinstall the prompt files. There may be an application design error. If the problem persists, contact your Northern Telecom development organization (NT-TOR).

2108 Minor Error

Cause: When the message, “Transfield: Invalid data in OutofRange field of field component record”, N1, N2 appears, it indicates that bad data was found in a field component record. N1 is the value of the invalid data, and N2 is the ID of the prompt being played.

Impact: The prompt will probably not be played or it might be partially played. A non-zero VX return code will be returned to the application.

Action: Log in to a mailbox to see if the prompt file is corrupted. Run diagnostics on the hard disk of the volume holding the prompt file VS2 to determine if there is any data corruption. Contact your NT support organization if the problem persists.

NT: The prompt files may be corrupted. Reinstall the prompt files. If the error persists, there may be a problem with the design of the prompt file. Contact your NT development organization.

2109 Minor Error

Cause: When the message, “TransPrompt: Invalid data in Fieldtype field of template”, N1, N2 appears, bad data was found in a template definition record. N1 is the value of the invalid data, and N2 is the ID of the prompt being played.

Impact: The prompt will probably not be played or it might be partially played. A non-zero VX return code will be returned to the application.

Action: Log in to a mailbox to see if the prompt file is corrupted. Run diagnostics on the hard disk of the volume holding the prompt file VS2 to determine if there is any data corruption. Contact your NT support organization if the problem persists.

NT: The prompt files may be corrupted. Reinstall the prompt files. If the error persists, there may be a problem with the design of the prompt file. Contact your NT development organization.

2110 Critical Error

Cause: When the message, “vx_int: No memory for PCB” appears, there was a failure to allocate a prompt control block from the heap passed in by the application.

Impact: The prompt files will not be initialized, and the voice application will not operate.

Action: Disable and re-enable the corresponding T1 channel. Run bootup diagnostics to test memory. If the problem persists, contact your NT support organization.

NT: Quit out of any utilities running on the node that has the offending port. The memory may have to be re-engineered. Contact your NT development organization.

Class 22 Voice Messaging (VM)

Introduction

Voice Messaging (VM) receives the user's voice messaging commands and executes them by calling the Voice Handler and Voice Processor.

Most VM errors affect only one call or user's session (unless the error is a symptom of a hardware problem). For most serious problems diagnosed by VM, the call is routed to the system attendant DN and VM releases memory and files for the next call.

A class 22 SEER contains:

- a lower level return code
- the user's mailbox number or DN (if relevant). If a mailbox included in a SEER is the user's mailbox, and this is an NMS system, (i.e., the login user or the recipient in a call answering session), then the mailbox number is output in the administrator's (the prime) context. Thus, since the administrator is the one looking at the SEERs, the SEER will be more meaningful to him or her.

Class 22 SEERs are often preceded by a related SEER which has the same mailbox number or the same return code.

In addition, some Class 22 SEERs may be followed by one or two related SEERs which are used by NT support organizations to trace problems. These debugging SEERs are normally not printed, but are stored in the SEER history file, and can be viewed/printed using the MMI or the SE_UTIL utility (to enable printing of these SEERs, the SEER filter level must be set to 'DEBUG' using the SE_UTIL utility). These debugging SEERs are intended for use by the NT support organization only.

Format of VM debugging SEERS:
If the text of any Class 22 SEER begins with the '+' character, this means that additional related debugging SEERs will be written into the SEER file. These SEERs will have the same SEER class, number, and return code as the VM SEER containing the '+' character, and are printed *after* the original VM SEER. The first debug SEER is 'VM Cmds' and can be used by the NT support organization to determine the last 20 commands issued by the user. The second debug SEER is 'VM Procs' and can be used to determine the software execution path (this second debugging SEER is only printed if the Debug level is higher than zero, set using the ad_util).

Reports

2201 Minor Error

Cause: VM encountered a problem while playing.

1. If the text says "Create Acknowledgement", VM failed to create and send an acknowledgement.
2. If the text says "Playing NDN/ACK prompt", VM failed to open or play messages correctly.
3. If the text says "Playing NDN/ACK attachment" or "Playing attachment" or "Playing attachment prompt", VM failed to open or play attachments correctly.
4. If the text says "Playing from beginning" or "Playing start prompt", VM failed to open or play messages correctly.
5. If the text says "Spoken name", VM tried to play a corrupted, bad or deleted spoken name. This SEER prints the mailbox number of the user with the bad spoken name.
6. If the text says "Play Prompt called with prompt files released", VM tried to play a prompt before the prompt files were initialized or after they were released.
7. If the text says "Trying to skip forward in msg", VM encountered an error when the user skipped forward while playing a message. There are two possible causes: i) an attachment on the message could not be opened, or ii) the lower-level VH software could not perform the PlaySkip command.
8. If the text says "PlayPrompt problems", VM was informed of an error by the lower level VX software while trying to play a system prompt (not user voice). A possible cause of this problem is corrupt data in a message header or user's

profile, or an invalid time-stamp. A related class 21 SEER is printed just before this, containing the prompt ID that it was attempting to play.

9. If the text says “pspply SecGrt problems” or “Ply DefGrt problems” then VM failed to properly play a call-answering greeting for a hotel guest mailbox.

The return code isolates the cause.

Impact:	Case 1.	The recipient of the original message will not hear any error prompts.
	Case 2–4.	The user hears the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
	Case 5.	The system recovers and plays the mailbox number instead of the spoken name. The owner of the mailbox should re-record the personal verification.
	Case 6.	No prompt is played.
	Case 7.	The user hears the prompt “Your command cannot be completed at this time ...”, and the skip forward command will fail. The skip forward command will not send a message delivery acknowledgement in this error condition.
	Case 8, 9.	The prompt will not be played, or will be partially played, or will be played as silence. In some cases, the software depends on successful playback of a prompt. In these cases the user’s session will appear to be inactive (i.e., the session may appear “hung”).
Action:	Cases 1–7, 9.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information and contact your NT support organization.
	Case 8.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information (including the prompt ID from the previous Class 21 SEER) and contact your NT support organization.
NT:	Cases 1–7, 9	If the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.
	Case 8.	If the previous class 21 SEER says that data is out-of-range, check system data bases for corruption, looking specifically at data indicated by the prompt ID and user scenario.

2204 Minor Error

Cause:
1. VM encountered a problem while trying to start recording at the current position of a previously created message. The return code isolates the cause.
2. If the text says “Failed to commit message” then VM had a problem doing incremental saves on a large message.

Impact:
1. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator”.
2. Recording will be stopped and the user will hear an error prompt. If it is in a call answering session the call will be disconnected. The message may or may not exist as recorded or it may be corrupt. In addition, the user volume on the disk may reach a safety limit, which will prevent call answering from working. If this happens, the problem will clear automatically during the overnight audits.

Action:
1. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
2. User-recorded voice messages are auto-saved every five minutes of recording. This is failing and your Northern Telecom support organization should be called. In the meantime, however, you may wish to temporarily reduce the maximum message length to less than five minutes. This will avoid the problem until it can be corrected.

NT:
1. If the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.
2. The message is committed every five minutes to free up block record resources in the volume server. If this is failing, the BRs may be improperly allocated. An audit on the affected user volume should be run to clean up the side effect of the problem.

2206 Minor Error

Cause: VM encountered a problem while trying to reply to the sender of an incoming message. The return code isolates the cause.

Impact: The user will hear one of four prompts:
1. “Your command cannot be completed at this time. Please try again later or contact your administrator.”

2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance."
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."
4. "That number cannot be reached from this service. Command cancelled."

Action:
- Case 1. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
- Case 2. The user should delete some messages or the administrator should increase the user's voice storage allocation. If this does not help, contact your NT support organization.
- Case 3. That user volume is full. Users should be reminded to delete all unnecessary messages. Auto-deletion of sent or read messages can be enabled. If this does not help, contact your NT support organization.
- Case 4. Ensure that the restriction/permission lists are set up properly. Contact NT support if there is any problem accessing the restriction/permission lists.

NT:
- Case 1. If the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.
- Case 2. Use the VSMUP utility to audit the user volume containing the mailbox of the user reported in the SEER. If this does not help, notify the development organization.
- Case 3. Use the VSMUP utility to audit the user volume containing the mailbox of the user reported in the SEER. If this does not help, the system may be under-engineered for the customer's current requirements. Voice storage expansion may be required.
- Case 4. If the restriction/permission lists are corrupt, the customer profile must be rebuilt using the ad_util.

2207 Minor Error

Cause: VM had a problem playing the sent date/time of a message when the user attempted the "play envelope" command.

Impact: The sent time in the message envelope will not be played.

Action: Use the MMI screen to set the system time if necessary.

NT: Use the MD_MT utility to dump the message that had the problem. Determine if the sent time stamp is corrupt. Reset the system time if necessary.

2208 Minor Error

Cause:
1. If the text says “Forwarding Msg”, VM failed to forward a message.
2. If the text says “Closing original”, VM failed to close the original message that was being forwarded.
3. If the text says “Re-opening Profile’’, VM failed to re-open the user’s profile during a forward operation.

The return code isolates the cause.

Impact: The user will hear one of three prompts (the numbered cause may not be related to the numbered impact):
1. “Your command cannot be completed at this time. Please try again later or contact your administrator.”
2. “Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance.”
3. “The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance.”

Action: The following Actions are linked to the Impacts, not the Causes.

Case 1. Look up the return code for specific information. If the code does not help, contact your NT support organization.

Case 2. The user should delete some messages or the administrator should increase the user’s voice storage allocation. If this does not help, contact your NT support organization.

Case 3. That user volume is full. Users should be reminded to delete all unnecessary messages. Auto-deletion of sent or read messages can be enabled. If this does not help, contact your NT support organization.

NT: See SEER 2206, Cases 1 to 3.

2209 Minor Error

Cause: VM had a problem while trying to reply to all of the recipients and the sender of an incoming message. The return code isolates the cause.

Impact: See SEER 2206.

Action: See SEER 2206.

NT: See SEER 2206.

2210 Minor Error

Cause:
1. VM failed to gain access to, or validate mailbox numbers or distribution lists while addressing during compose. The return code isolates the cause.
2. If the text says “Failure checking DNU restriction/permission list”, then the user attempted to compose a message to a non-user but the system was unable to check the dialing restriction/permission list to tell if the user is allowed to use that number.

Impact:
- Case 1. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator,” and will not be able to compose to that user.
- Case 2. The user will hear the prompt “That number can not be reached from this service” and will not be able to compose to that non-user.

Action:
- Case 1. It may help to delete and re-add the mailbox that the user was trying to compose to. If the networking or NMS features are installed, ensure that the network administration screens show the correct information.
- Case 2. Ensure that the dialing access restriction/permission codes in the voice security options screen have been set correctly.

If the problem persists, contact your NT support organization.

NT:
- Case 1. If the networking or NMS features are installed, make sure the network database contains the correct information. If the network database cannot be opened using the MMI it should be reinitialized using NAINIT in the UI_NETWORK package. Also ensure that the composed-to user can be successfully retrieved from the DR using the MD_DR utility. More information can be obtained by enabling the VM debug flag in the ORGPROF using the ad_util, then observing the console window while re-creating the scenario.
- Case 2. If the restriction/permission lists cannot be retrieved using the MMI, attempt to do so using the ad_util. If they still cannot be retrieved or are corrupt, the ORGPROF must be rebuilt. If the problem is not with the restriction/permission lists, check for corruption in the composing user’s profile using ad_util, and rebuild the user if necessary.

2212 Minor Error

Cause:
1. If the text says “MTA error”, VM failed to initialize the Message Transfer Agent (MTA) or failed to set the send time in the message header.
2. If the text says “Adding compose message”, VM failed to add a new message to the cabinet or failed to update it.

The return code isolates the cause.

Impact: In both cases, the user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT:
- Case 1. Ensure that the MTA software is running by using the PRM_CONTROL utility, and restart it if necessary. Ensure that a valid time has been set on the switch and that Meridian Mail has a valid time set.
- Case 2. If the message exists in the user’s cabinet, it may have to be deleted using the MD utility.

2213 Minor Error

Cause: VM encountered an error while a user was logging in. The error occurred during the initial login or after the user issued the login command. If the text says:
1. “NewVar of UserInfo”, VM failed to acquire memory space for a new variable called “UserInfo”.
2. “Opening cabinet”, VM failed to open the user’s cabinet.
3. “Finding Profile”, VM failed to find the user’s personal profile.
4. “Opening Profile”, VM failed to open the user’s personal profile.
5. “Logoff: can’t drChgEntry”, VM failed to update the organizational directory if a user’s password had expired.
6. “Multi-log in check”, VM encountered an error while checking to see if the user is already logged on to VM.
7. “Logoff: can’t gtiLogout”, VM failed to log off from GTI under these conditions: the user was logged in, had used Call Sender and then tried the login command.
8. “Failed to associate client”, VM failed to register the user as currently using VM.
9. “Logoff: can’t vhCloseV”, VM failed to close the voice prompts.

10. “Logoff: can’t mFlushM”, VM failed to update or close the user’s cabinet.
11. “Logoff: can’t cmCloseM”, VM failed to update or close the user’s cabinet.
12. “Logoff: can’t cmCloseC”, VM failed to update or close the user’s cabinet.
13. “Logoff: can’t ClosePrf”, VM failed to close the personal profile while logging in from VM.
14. “Opening first message”, VM failed in the procedure “cm_MenuToFIR” which finds and opens the first message.
15. “Check/Playing summary”, VM failed to inspect the user who was logging in.
16. “Password Violation”, VM discovered someone consecutively entering more than the maximum allowed number of incorrect passwords. The affected mailbox and the calling DN, if known, are given and the mailbox is disabled.
17. “Cannot read MWI for guest”, VM had difficulty determining whether non–voice messages exist.
18. “PCO Entry locked for too long”, someone is already accessing that post checkout mailbox or there is a problem with the post checkout mailbox.
19. “Error Opening PCO Cabinet”, VM failed to open the post checkout cabinet.
20. “Opening PCO Menu”, VM failed to open the post checkout cabinet menu.
21. “Opening first PCO message”, there were problems opening the user’s first message from the post checkout cabinet.
22. “Couldn’t change mode on ppAdminRec”, there were problems with the user’s personal profile.
23. “Error reading personal prof hosp rec”, there were problems with the user’s personal profile.
24. “Could not update HAS Logged In”, there were problems with the user’s personal profile.
25. “Could not change ppAdminRec to rc mode, VM failed to read the user’s personal profile.
26. “Could not update calling context” DN Update, VM failed to retrieve the calling context from the vsh.
27. “Problem in LoginFinish”, “Problem in LoginCheck”, or “Problem in PlyLoginStuff” there has been a problem in completing login and a password has been entered (or autologin).
28. “Cannot read component phone number record” or “Cannot read component time period”, then an error was encountered while checking remote notification being turned off externally for a mailbox.

29. “PCO cmCounters”, the number of new messages could not be determined in a hospitality post-checkout session.
30. “Error in PCO multimatch retrieval” or “Could not retrieve from HAS”, there were problems finding the guest’s mailbox during a post–checkout session.
31. “Logoff: can’t Gst Cntrs”, VM failed to read the hospitality record in the user’s personal profile.
32. “Logoff: can’t Disconnect”, VM failed to disconnect the call.
33. “Logoff: can’t cmChgMode”, VM failed to change the mode of the user’s cabinet.
34. “Logoff: can’t rnNLogOut”, VM failed to talk to OCS regarding RN.
35. “Logoff: can’t ChgMode RC”, VM failed to re-open user’s cabinet.
36. “Logoff: can’t ChgMode MWI”, VM failed to change the mode of the user’s personal profile.
37. “Logoff: can’t ReadMWI”, VM failed to read the non-voice message counters.
38. “Logoff: can’t UpdateMWI”, VM failed to update the user’s MWI.
39. “Logoff: can’t GetTimeTerm”, VM failed to retrieve a valid time from the system.
40. “Logoff: can’t ocCallResult”, VM failed to complete an outcall (RN or DNU).
41. “Logoff: can’t MWI PLH_VC”, VM failed to talk to the PMS link handler.
42. “Logoff: can’t VCI PLH_VC”, VM failed to talk to the PMS link handler.

The return code isolates the cause.

Impact:

Case 1–8.	The user will not be allowed to log in.
Case 9–12.	The user will be allowed to log in. New messages or changes to existing messages may not be reflected the next time the user logs into the mailbox.
Case 13–15.	The user will not be allowed to log in.
Case 16.	The user will not be allowed to log in until the administrator re-enables the user’s mailbox.
Case 17.	The user will be able to log in, but the MWI may not be correct.
Case 18–21.	The user will not be able to log in to the post checkout cabinet.
Case 22–23.	The user may not be able to log in.
Case 24.	The user may always have the introductory greeting played when logging in.
Case 25.	The incident is minor and there will probably be no effect.

	Case 26.	If the error occurs before the user has logged in, the login prompts may not come out in the language configured for the phone, and autologin may not work. Otherwise, there will probably be no noticeable impact.
	Case 27.	The user is given an error prompt and is allowed to try logging in again.
	Case 28.	The user will not be notified that his remote notification had been turned off externally (however, this probably indicates that there will be further problems with remote notification).
	Case 29, 30.	The user may not be able to log in.
	Case 31.	The user may not be able to log in, or the message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
	Case 32.	The voice channel may be hung for a while. It will recover by VSS reload automatically.
	Case 33.	The message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
	Case 34.	See Case 28.
	Cases 35–38.	The message lamp for the user may not be set correctly. It will be corrected on a subsequent login session if the same error does not recur.
	Cases 39, 40.	Outcalling session may end improperly. This may result in a retry.
	Cases 41, 42.	Voice count PMSI messages may not be returned correctly to the PMS system.
Action:	Cases 1–15.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
	Case 16.	The administrator must re-enable the mailbox. The administrator should speak to the mailbox owner to determine if someone is attempting to gain unauthorized access to the mailbox, or if the user simply forgot the password. If an unauthorized access is suspected, more information is available in the SEER. The DN from which the unauthorized access was attempted is printed in the SEER, if known, following “CGN”. In addition, the information following “DEV” indicates if it is an internal caller (DEV 0) or an “external” trunk

caller (DEV 1). If the SEER happens frequently, but is only due to users forgetting their passwords, it may be advisable to increase the number of incorrect login attempts allowed, using the "Voice Security" screen on the admin console.

Case 17. If the problem persists, contact your NT support organization.

Cases 18–25. Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.

Case 26. If the problem persists, contact your Northern Telecom support organization.

Cases 27, 28. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Northern Telecom support organization.

Cases 29-31. Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.

Cases 32–42. See Case 17.

NT:

Case 2. Ensure that the user's cabinet exists and can be opened using MD_CM. Ensure that the user's cabinet FID in DR is correct using MD_DR.

Case 3–4. The user's profile may be corrupt. Attempt to re-build it using ad_util. If this does not help, notify the development organization

Case 5. Ensure that the user's DR entry is accessible using MD_DR, and re-build it if necessary.

Cases 6, 8. Ensure that the VCA program is running using PRM_CONTROL, and restart it if necessary.

Case 14. Check for corruption in the user's cabinet using MD_CM.

Case 16. The user's mailbox was disabled due to too many bad password attempts. The calling DN (person trying to illegally log in) is encoded at the end of the SEER in ASCII text string format.

Case 26. Use ad_util to turn on the VM debug flag, then check the console window for DNP debug messages for more information during similar scenarios.

Case 28. The user's profile may be corrupt. Attempt to re-build it using ad_util. If this does not help, notify the development organization.

In all other cases, if the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.

2214 Minor Error

Cause: VM encountered a greeting problem. The text indicates the cause. If the text says:

1. "Opening", VM encountered an error while gaining access to a system, custom or personal greeting.
2. "Opening System Greeting" or "Opening Custom Greeting", VM encountered an error while gaining access to a system or custom greeting.
3. "Update greeting" or "Update Custom Greeting", VM encountered an error while accessing, reading, or writing either a system, custom or personal greeting.
4. "Updating System Greeting" or "Updating Custom Greeting", VM encountered an error while gaining access to, reading, or writing a system or custom greeting.
5. "Delete greeting", VM failed to delete either a system, custom or personal greeting.
6. "Delete system greeting" or "Delete Custom Greeting", VM failed to delete a system or custom greeting.
7. "Error getting correct parser table", the incorrect parser tables are loaded by the vss.pd. The table numbers are: 0—generic meridian mail, 1—guest voice messaging, 3—post checkout and 4—VMUIF call answering.

The return code isolates the cause.

Impact:
- Cases 1–4. The greeting will not be altered.
- Cases 5–6. The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator".
- Case 7. The service will not be available.

Action: Determine the scenario that caused the problem. Look up the return code for more information. If the code does not help, contact your NT support organization. Note that persistent SEERs on opening or playing Custom Greetings could be caused by failing to record a greeting after setting the greeting record to "custom".

NT:
- Cases 1–6. If a personal greeting is involved, the user's profile may be corrupt. If a system greeting is involved, the ORGPROF may be corrupt. Rebuild the affected profile if necessary, using ad_util
- Case 7. Replace with the correct vss.pd.

2215 Minor Error

Cause: VM had trouble disconnecting the user's call to Meridian Mail.

Impact: In all cases where this could occur, the system will appear to the user to be dead. Since the prompt files are not open, VM cannot play out an error message.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This can happen if the VM task has trouble communicating with the VSS program. Either the VSS is dead or it has been improperly engineered during design. Check that all voice channels (VSS programs) are properly loaded by using the PRM_CONTROL utility and by ensuring that each channel can accept new calls. Disable and re-enable any channels not properly loaded (the particular channel that caused the SEER can be determined by the channel number printed in the SEER). If the problem still occurs when all channels are properly loaded, contact your NT development organization (the IPC buffers in the VSS task may need to be re-engineered).

2217 Minor Error

Cause: VM encountered a Call Sender problem. If the text says:

1. "Unpack BillDN", VM received an error unpacking the mailbox as a DN for billing purposes.
2. "Getting phone number", VM encountered an error while finding or reading the message or network information.
3. "Failed to initiate call", VM failed to place a call.
4. "CSState, VSS Status mismatch", VM received the value of the field "GTI_Established" from the VSS during call sender.
5. "CSState, GTI_Cmd mismatch", VM received an unexpected GTI command while waiting for valid commands.
6. "VPHTid not available", VM could not locate the Taskid of the Voice Processor Handler.
7. "GTI_Login failed with rc", VM failed to log in to GTI.
8. "GTI_Login failed ", VM received a bad login result from GTI.
9. "GTI Error", VM received an error indication from GTI while waiting for a login result or call progress.
10. "GTI Logout failed", VM received an error indication from GTI while waiting for a GTI logout result or call progress.

11. “Timeout waiting for GTI Login Result”, VM timed out waiting for GTI to respond to a login request.
12. “Timeout waiting for GTI Call Progress”, VM timed out waiting for call progress information from GTI after placing a call.
13. “Call Sender call not established”, VM received call progress information from GTI indicating the call was not completed. The user’s mailbox number will be indicated in this SEER.
14. “Phone probably not set up for call transfer, or COS restriction” (and if the return code is 9 and there is a related SEER with the text “Reason not established” and return code 9), the DN specified in the first SEER may not have transfer capability or it is already involved in a conference circuit. But if the return code of the related SEER is 8, the DN specified in the related SEER is forwarding to a non-existent DN. In this specific latter case, the SEER code is Type: Admin. and Severity: Minor.
    COS restrictions refer to class of service (Meridian 1) or translations (DMS) on the switch that affect transfer capability. This is not related to Meridian Mail class of service.
15. “Reason not estab & DN called”, VM received call progress information from GTI indicating the call was not completed. The target phone number is indicated in the SEER.
16. “Could not update DN for Call Sender”, VM was unable to get the DN type and number of the calling number on a DN Update (i.e., conference, someone hangs up, etc.) from vsh.

The return code isolates the cause.

Impact:

Case 1.	The phone number is rejected and the call is not completed.
Cases 2, 3.	The call is not completed. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
Case 4.	VM will ignore the error. There could be unknown side effects.
Case 5.	VM will ignore the unexpected command. There could be other unknown side effects.
Case 6.	If a user tried to use the “call sender” command during this session, the call will be transferred and the VM session terminated immediately.
Case 7–8.	VM will continue to try the call but the call will be transferred and the VM session terminated.

Cases 9–10. For a login result, the call will be transferred and the VM session terminated immediately.

For a call progress, VM already tried to place the call and will now play an error prompt. The call will fail and the user will be returned to the VM session.

To hear this prompt, the user may have to use the "unhold" command to return to the VM session. If the user tries to issue another "call sender" command during this session, the call will be transferred and the VM session terminated immediately.

Case 11. The user will hear approximately 30 seconds of silence and then the call will be transferred and the VM session terminated immediately.

Cases 12–15. The user will hear an error prompt. To hear this prompt the user may have to "unhold" the VM session. If the user attempts another call sender during this session, the call will be transferred and the VM session terminated immediately.

Case 16. User may not be able to perform Call Sender function during session.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: Cases 2, 12. On systems with networking or NMS features, the user can obtain more information about the call setup by using the ad_util command to activate the Voice Messaging debug flag and then checking for related messages in the console window.

Cases 13–15. The secondary return codes can be found in Appendix A: Error/Return Codes under the heading "Call Progress Status".

Case 16. Use ad_util to turn on Voice Messaging debug flag. In console window, check "DNP" debug messages.

In all other cases, if the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.

2218 Minor Error

Cause: VM could not revert a caller to the System Attendant because VM encountered initialization problems.

Impact: The user's call to VM will be answered but it will be hung up. No prompt will be played because the prompt files were not opened during initialization.

Action: First of all, find out why VM could not initialize properly by reviewing the preceding SEERs. Then, make sure that the System Attendant DN has been defined

as a valid phone number in the MMI (General Administration, General Options screen). Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: The revert-to-operator function is implemented as a transfer from the voice channel. Therefore, ensure that all voice ports used by MMail have the capability to transfer calls defined in the switch datafill. For multicustomer/tenant MMail, the system attendant DN as shown on the MMI, may be translated before dialing. If the MMail voice ports are in a different customer/tenant group than the system attendant DN, then the customer DN prefix, as shown in the Voice Messaging Options screen, is inserted at the start of the DN before dialing. Ensure that this field is set correctly. In addition, the customer DN length must be set correctly.

2221 Minor Error

Cause: VM encountered an error while gaining access to, reading, or writing the password information. The return code isolates the cause.

Impact: The user's password will not be updated. The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user's profile may be corrupt. Check and rebuild it if necessary using ad_util.

2222 Minor Error

Cause: VM encountered a spoken name problem.

1. If the text says "Committing spoken name", VM had a problem committing the spoken name.
2. If the text says "Opening a Spoken Name", VM failed to initialize or open the file for the spoken name.

The return code isolates the cause.

Impact: Case 1. Any changes to the spoken name may not take effect.

2. The user will hear one of three prompts:

a. "Your command cannot be completed at this time. Please try again later or contact your administrator."

b. “Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance”.

c. “The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance.”

Action:	Case 1.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 2a.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 2b.	The user should delete some messages or the administrator should increase the user’s voice storage allocation.
	Case 2c.	That system volume is full. Delete files and perform an audit.
NT:	Case 1.	Determine the scenario that caused the problem. If the user was trying to update his own spoken name, then his own DR entry may be corrupt. But if the user has administrator capability, he may be trying to update another user’s spoken name, and this other user’s DR entry may be corrupt. Check and rebuild the affected user’s DR entry if necessary using MD_DR.
	Case 2a.	Same as Case 1 (above).
	Cases 2b–c.	See SEER 2206, cases 2 and 3.

2223 Minor Error

Cause: VM encountered a problem with a Personal Distribution List (PDL).

1. VM could not close the PDL, as indicated by the SEER text.
2. VM could not delete the PDL, as indicated by the SEER text.
3. VM could not open the PDL, as indicated by the SEER text.
4. VM could not record the PDL, as indicated by the SEER text.
5. VM could not create the PDL, as indicated by the SEER text.
6. If the text says “PDL second address”, VM encountered an error while closing or validating the distribution list.
7. VM could not play the PDL, as indicated by the SEER text.

The return code isolates the cause.

Impact: The user’s changes to the list may not take effect. The user will hear one of three prompts:

a. “Your command cannot be completed at this time. Please try again later or contact your administrator.”

b. “Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance”.

c. “The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance.”

Action:
Case a. Look up the return code for specific information. If the code does not help, contact your NT support organization.

Case b. The user should delete some messages or the administrator should increase the user’s voice storage allocation.

Case c. That user volume is full, delete files and perform an audit.

NT: Personal Distribution Lists are stored in the user profile of each mailbox. Errors in handling PDLs can generally be cleaned up by deleting the affected PDL record in the Profile file. This can be done using the MD utility (record type is ByteStream, record ID = PDL number). The PDL record will be recreated (but empty) the next time the user enters that PDL number in the 8–5 command. If this fails to work, the entire Profile can be deleted then recreated using ad_util (or by copying from another user and modifying appropriately). Also note that some PDL operations make use of a temporary copy of the Profile. If a PDL operation fails, this temporary file may not immediately be cleaned up properly. The result is that the text storage on the user volume may be temporarily increased erroneously. To delete this temporary file, an audit of the user volume can be run (but this happens automatically overnight anyway).

2225 Minor Error

Cause:
1. VM failed to create a new message. The return code isolates the cause.
2. If the text says “Open msg for DNU ack”, then the original message sent to a non-user could not be re-opened to get the address for acknowledgement.
3. If the text says “Close msg for DNU ack”, then the original message sent to a non-user could not be closed after sending the acknowledgement.

Impact:
Case 1. The user may encounter more problems performing further operations on the message. A call answering or express message may not have been created in the user’s mailbox.

Case 2. The DNU message will not have an acknowledgement.

Case 3. A heap loss may be detected at task completion, and the channel will then reload. The DNU acknowledgement will still be sent correctly.

Action: Case 1. Examine the preceding SEERs that have the same mailbox number or a SEER number matching the return code. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

Cases 2–3. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This will normally be caused by a problem with the file system (for example, volume full condition or incorrect VS formatting parameters) or a problem with the disk subsystem. Verify the correct configuration of the volumes, and check and repair SCSI components if necessary.

2226 Minor Error

Cause:
1. VM encountered an error while adding a message to the user's cabinet, as indicated by the SEER text.
2. If the text says "Adding new Arrival" or "New Arrival", VM encountered an error while adding a message to the user's message wait.
3. If the text says "AddMsg failed in rnMsgArrival" then there was a failure telling the OCS that a message had been deposited for someone by VM.

The return code isolates the cause.

Impact: Cases 1–2. The messages will be lost.

Case 3. The recipient will not be "remote-notified" of the message.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This scenario can occur when a new message is sent to a user who is currently logged in. Attempt to reproduce the problem by sending composed and call-answering messages to a logged-in user. (The user must move to the next message before the new message can be received).

This scenario can also occur any time a new message is added to a mailbox by way of compose, send-receive, call answering, or express messaging. For cases 1 and 2, check for volume full condition. For case 3, check that the OCS software is loaded and running (use PRM_CONTROL utility).

2227 Minor Error

Cause: VM encountered an error while gaining access to, opening, or reading the message. The return code isolates the cause.

Impact: The user will hear one of six error prompts:

1. "Your command cannot be completed at this time. Please try again later or contact your administrator"
2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."
4. If the text says "Inconsistent Times in Msg" then there is no impact whatsoever. This SEER can be ignored in all cases; it should not have been printed.
5. If the text says 'Late Msg' or 'More Info', then a user has received a message that was sent more than 10 minutes ago.
6. If the text says "Deleted IP Msg in Guest Mbx", then an acknowledgement or nondelivery notification was found in a guest mailbox. Hospitality voice messaging does not handle these types of message. The message is deleted with no impact to the user.

Action:

Case 1. Look up the return code for more information. If the code does not help, contact your NT support organization. If the text of the SEER refers to "trying to open message" with a return code of 1007, this and subsequent 2227 and 2233 SEERs are not significant problems unless a number of them occur at once. The user can clean up any inconsistencies caused by this problem by deleting the offending message.

Case 2. See SEER 2206, case 2.

Case 3. See SEER 2206, case 3.

Case 4. None. Please ignore this SEER.

Case 5. Advise the user shown in the SEER not to delete any messages in the mailbox, so that these can be studied by NT Support. Contact your NT Support organization. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the users mailbox prior to the late message, then this SEER can be ignored.

Information in this SEER is as follows:

- HDR.DR is the time the message was left/sent/time-delivered
- FIR.DC is the time the message arrived in the recipient's mailbox
- R= is the number of recipients
- +B means this is a broadcast message
- +S means the message was sent to a system distribution list

The FID of the message is also included; if the user has deleted the message from his mailbox, the FID can be used to find the message if it exists in anyone else's mailbox. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the users mailbox prior to the late message, then this SEER can be ignored.

Otherwise print out the following information and contact your NT development organization:

1. The message contents using the MD-MT utility.
2. The user's cabinet contents using "display +e" in the MD-CM utility.
3. The contents of any system distribution list that the message was sent to.

Case 6. None.

NT: If this SEER occurs with any regularity, it may be useful to turn on the "Session Trace" feature. See the section "Operational Measurements" in the document *ETAS Utilities* (NTP 555–7001–260) for details. The "Session Trace" feature will track each interaction with a mailbox, so that the resulting messages can be traced.

2228 Minor Error

Cause: VM encountered an error while entering or committing the cabinet, or while updating the menu. The return code isolates the cause.

Impact: Changes, if any, may not take effect.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user's cabinet may be corrupt. Attempt to open the cabinet using MD_CM, and delete and rebuild the mailbox if any corruption is found.

2229 Minor Error

Cause:
1. VM encountered an error while updating the menu.
2. VM encountered an error while gaining access to, or reading the personal profile, or while trying to turn off the message waiting indicator (MWI).

The return code isolates the cause.

Impact:
- Case 1. Any changes to the message may not be reflected the next time the user logs in.
- Case 2. The MWI may be set incorrectly.

Action:
- Case 1. Look up the return code for specific information. If the code does not help, contact your NT support organization.
- Case 2. To reset the MWI, send a new message to the user's mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly.

NT:
- Case 1. See SEER 2228.
- Case 2. The MWI can be reset using the GTI_PKG utility. If the problem persists, notify the development organization.

2230 Minor Error

Cause: VM could not close a message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on that message.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: See SEER 2228.

2231 Minor Error

Cause: VM was unable to update a user's cabinet to reflect the deletion of a message.
1. If the text says "Opening Msg in DelAll", the message could not be opened for deletion/restoration during a request to delete messages.
2. If the text says "Updating Msg in DelAll", the message could not be marked as deleted/restored during a request to delete messages.

Impact: The message may not be deleted/restored.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: See Seer 2228.

2232 Minor/Crit Error

Cause: VM was unable to acquire sufficient initial resources to begin a session. The text message indicates the cause. If the text says:

1. “Switching services: CA—VM”, the user tried to log in from a call answering or express messaging session and VM encountered a problem trying to switch to a voice messaging service.
2. “New prompt files switch”, VM had problems resetting the language of the system prompt files.
3. “Prompt files for boxnumber”, VM has problems resetting the language of the system prompt files.
4. “Problems in vm — Logoff called”, VM had already detected a problem and failed to obtain information from the voice services shell on details of the Calling and Called DNs.
5. “Getting call info. on service transfer”, VM had a problem obtaining information from the voice service shell after the VSS had invoked it.
6. “Getting vm control block”, VM had a problem obtaining heap to store its global data record.
7. “VM: VM svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
8. “VM: CA svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
9. “VM: QC svc — fails to bind routines”, a bad service ID was used in the procedure that associates the VM routines with the VSS.
10. “(“phoneDN”)—>(“calledDN”)”, VM encountered a serious problem and has terminated the call.
11. “Non-user forwarded to VM”, VM encountered a problem during call-answering and has terminated the call. Either a non-user of voice messaging had his phone forwarded to the Meridian Mail DN, or there was a serious directory problem. In this particular case, the SEER code is considered Type: Admin. and Severity: Info.
12. “Could not find parser/state table”, the incorrect parser tables were loaded by vss.pd. The table numbers are: 0—generic Meridian Mail, 1—guest voice messaging, 3—post checkout and 4—VMUIF call answering.
13. “Couldn’t get ppAdmin in InitCAn”, the hospitality record in a call answering session could not be found to determine if the called DN was guest or staff.

14. “Finding user class”, the personal profile could not be read.
15. “VM:HMsvc — fails to bind routines” or “VM:PCOsvc — fails to bind routines”, either the staff and guest voice messaging or the post checkout services were not bound properly by vss.
16. “Error playing custom login”, the custom login greeting was not recorded or some other greeting error has occurred.
17. “Error playing custom intro greeting”, the intro custom greeting was not recorded or some other greeting error has occurred.
18. If the text says “Debug flag enabled — performance degradation expected”, then Northern Telecom developers have been investigating Voice Messaging. In this particular cause, the SEER code is considered Type: Admin. and Severity: Info.
19. If the text says “Bad connection timestamp in StartVM”, then VM was unable to get the time of original connection to the service.
20. If the text says “Could not update DN for Call Sender”, VM was unable to get the DN type and number of the calling number in StartProc (VM initialization).
21. If the text says “Getting space alloc/used” then the space allocation and space used parameters could not be obtained from the VS for the mailbox indicated.
22. If the text says “Calling DN: x CalledDN: x Dev: x Type: x CustNum: x”, the call could not be answered or the initial prompt such as ‘Meridian Mail’ could not be played. Possible problems are link outages, VPIO task dead, and voice port faulty.

The return code isolates the cause.

Impact:

Case 1.	The user will hear the error prompt and will return to where the login command was entered.
Case 2.	If the previous language was different from the new language, the system will try to switch back.
Case 3.	For a Call Answering session, the session will be terminated and the system will attempt to revert to the Custom Operator or System Attendant (in that order, if they exist). For a logon session, the session will terminate.
Cases 4–10.	The user will probably not be connected with the desired service.
Cases 11.	See Action.
Cases 12.	The service will not be available.
Cases 13–14.	The session will be lost.

	Case 15.	The session will be lost.
	Case 16.	If the greeting is not recorded, the service continues. If some other error is occurring, the service discontinues.
	Case 17.	The greeting is not played.
	Case 18.	Performance degradation in all services.
	Case 19.	OM reports on service usage may be incorrect and other features involving times may not work correctly (i.e., timed delivery, remote notification setup).
	Case 20.	User may not be able to perform Call Sender function during session.
	Case 21.	Session will continue. If the user's mailbox is full, this will not be announced during login, and call answering will not be blocked even if this feature is enabled.
	Case 22.	The call is disconnected and the user will hear a partial prompt or no prompt at all.
Action:	Case 1.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 2.	Examine the related SEERs. Check that the preferred language of the user is a valid, installed language. Note: "Preferred language override" only applies to Call Answering and Express Messaging.
	Case 3.	Examine subsequent SEERs containing the same DN or user or mailbox for more information.
	Case 4.	Examine the preceding SEERs for more information.
	Cases 5–6.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 10.	Examine the preceding SEERs for more information. If there are no preceding SEERs, the problem might be either that a non-VM user forwarded his or her phone to VM or the directory has a serious problem.
	Case 11.	Define a mailbox for the non-user or stop the offending telephone from being forwarded to VM.
	Case 12.	Contact your NT support organization to replace with the correct vss.pd.
	Cases 13–14.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
	Cases 7–9,15.	Contact your Northern Telecom support organization.

Cases 16, 17. Record a greeting, and if the problem persists, check the return code and contact your Northern Telecom support organization.

Case 18. If Northern Telecom developers are not performing an investigation at the time, contact your Northern Telecom support organization to remove Voice Messaging debug flag.

Case 19. Ensure that the time is set correctly. If problem persists, contact your Northern Telecom support organization.

Case 20. If problem persists, contact your Northern Telecom support organization.

Case 21. Act according to the return code indicated.

Case 22. If problem persists, contact your Northern Telecom support organization.

NT: Case 2–3. Ensure that prompt files exist in the correct cabinet on the correct volume, using the MD utility.

Case 11. The mailbox number in the SEER is actually the called-DN, which was set to forward to VM. If this DN is not supposed to have a mailbox, then change the DN definition on the switch so that it does not call forward or hunt to VM. If the DN is a secondary DN on a multi-line phone, then add this DN to the Extension DN list of the mailbox. If the DN in the SEER is supposed to have a mailbox already, then use MD_DR to attempt to retrieve the mailbox DR entry. Re-build the DR entry if necessary.

Case 18. Use ad_util to disable the voice messaging debug flag (in the "Login" record).

Case 20. The calling DN given in the PCI from the switch should be checked.

In all other cases, if the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.

2233 Minor Error

Cause: VM encountered a problem during the logoff sequence.

Impact: Varies widely from an improper setting of the user's MWI to a drastic loss of program resources. The user may not notice any problems until login is tried again.

Action: The SEER text should describe the exact problem. If the action is not obvious from the description, contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This SEER will normally list one or more internal software procedures which could not be executed. The return code in the SEER applies to the first procedure which encountered a problem; the remaining procedures may have had problems as a result of the first problem. There will usually be several related SEERs preceding the 2233 SEER; they are related if the TaskID in the SEER is the same. These related SEERs should be studied closely to determine the cause of the problem. Some of the possible errors shown in the SEER are as follows:

- "cmFlushM", "cmCloseM", "cmChgMode", "cmCloseC"
  means that updates to the mailbox (e.g., msg deletions) may not take effect. Check for and clean any corruption in the user cabinet, using MD_CM.
- "rnNLogOut", "ocCallResult"
  means that remote notification for this user may not work. Check that the OCS software is installed and running, using PRM_CONTROL.
- "CleanUp: can't gtiLogout"
  means the user will not be able to perform call-sender in the same session. Check that the AML/CSL/ISDN–AP link is up.
- "vhCloseV"
  means that the customer profile may be corrupt. Check and fix this using MD.
- "Hosp:ChgMode", "Hosp:adRead", "ClosePrf"
  means changes to the user profile may not take effect; the Profile file may be corrupt. Check using ad_util.
- "GstCntrs", "VCI PLH_VC", "MWI_PLH_VC"
  means guest voice counts may not be sent to the hotel's PMS system (HVS systems only)
- "drChgEntry"
  means that the user's DR entry could not be updated with password expired status. Check for corruption in the DR using MD_DR.
- "Disconnect"
  means there was a problem disconnecting the call. See SEER 2215.
- "om_SendVMData"
  means that operational measurements information could not be saved for this session. Check that the OMSERVER software is running using PRM_CONTROL.
- "Disassociating Client"
  means the user could not be deregistered from the call, and may not be able to log in again (prompt will say mailbox currently in use). Disable and re-enable the channel.

2234 Minor Error

Cause: VM encountered an error turning on the MWI while depositing a call answering message in a user's mailbox. The return code isolates the cause.

Impact: The MWI for the target user's mailbox may be set incorrectly.

Action: To reset the MWI, send a new message to the user's mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly. Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The MWI can be reset using the GTI_PKG utility. If the return code does not point to the cause of the problem, notify the development organization.

2235 Minor Error

Cause: VM is receiving error messages or unusual data from other software components. If the text says:

1. "StopVoice", VM requested the Voice Handler to stop the playing of voice and the Voice Handler returned an error.
2. "Received a bad digit", VM received an out of range DTMF digit (the digit was less than 1 or greater than 12).
3. "PlayPrompt Problems", VM had an error or internal time-out.
4. "Unexpected Call Progress Entry", VM had an error or internal time-out.
5. "Unexpected GTI_from Switch Entry", VM had an error or internal time-out.
6. "GTI Reference ID Mismatch", VM had an error or internal time-out.

The return code isolates the cause.

Impact:
- Case 1. The user may hear voice continue to play where it was expected to stop.
- Case 2. None.
- Cases 3–6. Unpredictable.

Action: Look up the return code for more information. If the code does not help, contact your NT support organization.

NT:
- Cases 1–2. If the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.
- Cases 3–6. Use ad_util to enable the VM debug flag, then check the console window during similar scenarios. The console window will show all

call-progress information received from the switch. The “CallState” values can be found under the heading “Call Progress Status”, and the “otherInfo” values can be found under the subheading “Supplementary Information to Call Progress Status”, both in Appendix A of this manual.

2236 Minor Error

Cause: VM encountered a problem during a call answering or express messaging session. The message text indicates the cause. If the text says:

1. “Trouble Finding mailbox”, VM encountered an error looking up a mailbox for an Express Messaging session.
2. “Close the greeting”, VM had problems closing the greeting before starting to record a call answering message.
3. “Creating the message”, VM was unable to create a message for the call answering session.
4. “Closing Sys Greeting”, VM had problems closing the system greeting before starting to play the next prompt.
5. “Close voice in bad grtg”, VM had a problem playing a greeting and closing it.
6. “Error playing pers. grtg, subst std grt”, VM had a problem playing a non-system greeting or a telset busy prompt.
7. “Opening cabinet”, VM had a problem opening the user’s cabinet for an express messaging session.
8. “Finding Profile”, VM had a problem finding the user’s profile for an express messaging session.
9. “Read Profile”, VM had a problem finding or reading the user’s profile for an express messaging session.
10. “Open User Profile”, VM had a problem finding or opening the user’s profile while name addressing during an express messaging session.
11. “SetCallInfo failed in DNUpdate”, VM had a problem obtaining the caller’s DN or placing it in the call answering message.
12. “dd_Write failed in DNUpdate”, VM had a problem writing the caller’s address into the call answering message.
13. “dd_FindRec failed in DNUpdate”, VM had a problem finding the record in a call answering message which contains the sender’s address.
14. “Error playing system grtg, subst pers/std grtg”, VM had a problem playing the system greeting.

15. “dr_FindEnt on Caller”, VM encountered a problem finding the caller’s entry in the organization directory while trying to set up the call information.
16. “mkAddress on Caller”, VM encountered a problem formatting the caller’s address while trying to set up the call information.
17. “Error playing custom CA unans greeting” or “Error playing custom busy greeting” or “Error playing custom disabled/vacant greeting”, the applicable greeting was not recorded or some other greeting error occurred.
18. “Error playing system greeting, subst. pers/std greeting”, there was an error on playing the guest or staff system greeting.
19. “Could not update calling context” in DN Update, VM encountered an error getting the calling context from the VSS.
20. “CA max message length reduced” then the maximum call answering message length has been reduced for the mailbox indicated because the user has exceeded the space allocated (if the return code is 0). If the return code is non-zero, then the changing of maximum message length was unsuccessful.
21. “Call Answering message not recorded”, then the mailbox indicated has become so full that a call to that mailbox was reverted to the attendant.
22. “PlyCADefGrt: DN” or “PlyBusyGrt: DN” or “pspPlyPr:pCAPr: DN” then the dialing number could not be obtained for one of the default call answering greetings.

The return code isolates the cause.

Impact:

Case 1.	The user will have just entered the mailbox number where they wanted to leave a message and instead of hearing the verification they will hear the error prompt. The express messaging session will then be terminated.
Case 2.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 3.	If this is the result of a full volume server, the user will hear an error prompt and will be placed in the call answering empty state.
Case 4.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 5.	A personal greeting may not be heard, or subsequent commands may fail.
Case 6.	A personal greeting or telset busy prompt is substituted with the system-provided standard greeting.

	Cases 7–9.	If the user was in name addressing then he or she will hear “Call Answering cannot be continued at this time. Connecting to the attendant.” The call will then be rerouted to the attendant. If the user was not in name addressing then they will hear “Your session cannot be continued. Please try again later or contact your administrator.” The express messaging session will be terminated.
	Case 10.	The user will hear “Call Answering cannot be continued at this time. Transferring to an attendant.” The call is rerouted to the attendant.
	Cases 11–13.	The “from address” in the call answering message being left may be incorrect or incomplete.
	Case 14.	The user will hear just the personal or standard greeting instead of the system greeting and the personal or standard greeting.
	Cases 15–16.	The caller’s address will not be stored in the message.
	Case 17.	The default greeting is played instead of the custom greeting or the busy greeting is not played or the system reverts to the revert DN and does not play the disabled/vacant greeting.
	Case 18.	The greeting is not played.
	Case 19.	The recipient of the call answering/Express Messaging may not be able to use the Call Sender function on the message, and the “from” information in the message header may be incorrect.
	Case 20.	If the return code is non-zero, the maximum message length could not be reset. Otherwise, callers to this mailbox will not be able to leave messages which are greater than one minute in length.
	Case 21.	This is a feature. Callers to this mailbox will not be allowed to leave messages and will be transferred to the attendant.
	Case 22.	The caller may hear the incorrect number in the call answering message.
Action:	Case 1.	This SEER provides the mailbox number that the Express Messaging user tried to enter. Use it and the return code to solve the problem. If unclear, contact your NT support organization.
	Cases 2–4.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 5.	Examine related SEERs for more information.
	Case 6.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Cases 7–10.	Examine SEER 2250, which follows this SEER.

	Case 11.	Examine SEER 2236, which precedes this SEER.
	Cases 12–14.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
	Case 15–16.	Refer to subsequent class 22 SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
	Case 17.	Record the applicable greeting if it is not already recorded. If the error persists, check the return code and contact your NT support organization.
	Case 18.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 19.	If problem persists, contact your NT support organization.
	Case 20.	Act on the return code if non-zero. If unclear, contact your NT support organization.
	Case 21.	System administrator should inform the user that his mailbox is too full and he should clean it up and/or the user may require more space.
	Case 22.	Look up the error code and act accordingly. If unclear, contact your NT support organization.
NT:	Case 1.	Use MD_DR to search the DR for the mailbox number shown in the SEER. Rebuild the DR entry for this mailbox if necessary.
	Case 2.	The user's profile may be corrupt. Check and rebuild it if necessary, using ad_util.
	Case 3.	The user's cabinet may be corrupt. Use MD_CM to verify and delete/rebuild the cabinet if necessary.
	Case 4.	The ORGPROF may be corrupt. Use ad_util to check it and rebuild it if necessary.
	Cases 5–6.	See Case 2.
	Cases 7–8.	See Case 3.
	Cases 9–10.	See Case 2.
	Case 14.	See Case 4.

Case 15.	The mailbox number in the SEER is actually the calling DN. Use MD_DR to look up the calling DN in the DR. If there are errors in the DR, notify the development organization.
Case 19.	Use ad_util to activate the voice messaging debug flag and check "DNP" messages in the console window.
Cases 20–21.	If these SEERs occur when the mailbox is not actually full, then attempt to free up the unusable space in the mailbox by deleting the user's personal greetings and auditing the user volume of the affected user by using VSMUP. To disable this feature, set the "CA blocking factor" field to 0 in the ORGPROF using ad_util.
Case 22:	Use ad_util to activate the voice messaging debug flag. Messages in the console window may be helpful to the designers.

For all other cases, contact your Northern Telecom development organization (NT–TOR).

2237 Minor Error

Cause: VM encountered a case which its software does not handle. If the text says:

1. "Turn on timer", VM tried to reset its delay timer with an undefined value.
2. "Illegal state", the state tables in VM indicate that a non-existent prompt should be played. This is usually a software error, but it could also be caused by corrupt memory (i.e., bad RAM hardware). Software causes could be errors in state tables or digit parser in the wrong state.
3. "Illegal procedure", the state tables in VM indicate that a non-existent procedure should be executed.
4. "VoiceIOEvent", VM received an undefined or inconsistent VoiceIOEvent interrupt.
5. "RN State not handled in PlayRNPrompt", a prompt could not be played because VM is in an illegal state.
6. "Internal Error: Bad RN schedule RecIDpassed to RNRead", or "Internal Error: Bad RN schedule passed to RNWrite", VM encountered an unknown Notification schedule type.
7. "Bad RN cmd entered in PSPRNMenu", VM has encountered an invalid state.

Impact:	Case 1.	This could cause a disruption of the normal sequence of delay prompts and affect the normal disconnect time out sequences. The entry of any command by the user may correct this condition.
	Case 2.	The user's commands will not be understood correctly and the resulting error prompt will not be played.

	Case 3.	Unpredictable.
	Case 4.	Unpredictable.
	Case 5.	Unpredictable.
	Case 6.	The schedule cannot be read/added/changed/deleted.
	Case 7.	The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
Action:	Case 1.	Contact your NT support organization and supply SEER printouts covering the hour before and the hour after this SEER occurred.
	Case 2:	Contact the owner of the mailbox shown and determine the sequence of commands that were given by the user to cause the problem. Contact your NT support organization.
	Case 3–7:	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: These are internal errors within the software implementation. They are expected to occur only in faulty hardware conditions (either RAM or disk subsystem faults), or periods of extremely heavy loads (outside the supported engineering limits). Any other occurrence indicates a software bug. Since the data in the SEERs references' internal state IDs cannot be interpreted without access to the source code, contact your Northern Telecom development organization (NT-TOR).

2238 Minor Error

Cause: A problem occurred within VM and not at a lower level.

Impact: The user may hear a system error prompt. Normal operation may proceed upon user entry or VM may be shut down with the caller forwarded to the attendant as in the case of a non-user forwarded to VM.

Action: Look at the accompanying SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT:
- If the SEER text indicates a problem while playing or recording, this is the result of an unexpected voice i/o event and may indicate a software bug. Contact your Northern Telecom development organization (NT-TOR).

- If the SEER text indicates a problem closing a custom greeting, then the customer profile may be corrupt. Check for corruption and clean it up if necessary, using the MD utility.
- If the SEER text indicates a problem closing a menu, this means the user's message list may be corrupt; there may be a related class 2213 SEER indicating an underlying cause. Check for and clean up any corruption in the user cabinet using MD_CM.

2239 Minor Error

Cause: VM encountered an error while executing the skip backward command on a Non-Delivery Notification or an Acknowledgement. The return code isolates the cause.

Impact: The user will hear the error prompt "Your session cannot be continued. Please try again later or contact your administrator."

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This indicates possible corruption in an NDN or Acknowledgement message in the user's mailbox. Use MD_CM to open the affected user's cabinet and find the filename of any message whose "subject" field begins with "ACK" or "NDN". Then use MD_MT to open each of these messages and check for corruption. Using MD_CM, delete any messages which are corrupt.

2250 Minor Error

Cause: Case 1. If the text says "Quick Compose setup failed", VM encountered an error while setting up an express messaging session. The return code isolates the cause.

Case 2: If the text says "couldn't get Mbox Num", VM had problem translating the Mailbox Number to be played back to the user.

Impact: Case 1. The express messaging session is terminated. If the user has yet to hear the spoken name verification then the user will hear the error prompt "Your session cannot be continued. Please try again later or contact your administrator." If the spoken name verification has already been played, then the user will hear "Your call cannot be continued at this time; transferring to an attendant," and the system will make the connection.

Case 2: The user may not get proper confirmation of the mailbox number to which message is being sent. The session will continue and the message can be recorded and left.

Action: This SEER is often preceded by a related SEER, one having the same mailbox number or a SEER number matching the return code. Examine this SEER. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: Case 1. This may indicate corruption in the mailbox in which the user was trying to send an express message. Check and fix the corruption in the user cabinet using MD_CM. Check and fix the corruption in the user Profile using ad_util.

Case 2: When the user types a mailbox number for express messaging, it is played back to the user for confirmation. In an NMS system, the mailbox number may be translated before playback to indicate the location spoken name. This translation is failing. The impact to the user is that instead of a translated mailbox number and location of spoken name, they will hear the digits typed in without any translation. The message will still be deposited in the correct mailbox. The translation of the mailbox number is done using the network database. In diagnosing this problem, check that the network prefixes are properly defined.

2251 Minor Error

Cause: VM encountered a call processing problem while trying a custom operator revert. The return code isolates the cause.

Impact: The user is not transferred to the custom operator. The user will hear the error prompt “Your connection cannot be completed at this time. Please try again later or contact your administrator.” If the user was in call answering, then the user will be returned to the place where 0 was pressed. If the user was logged in to a mailbox, then the user will be placed at the end of it. The user is told the call can’t be completed. The user can still continue the mail session. If residential call answering is used the mail session ends as well as the call.

Action: Look up the return code for more information. If the code does not help, contact your NT support organization. One possibility is that the DN being transferred to is out of order. Try calling the DN directly.

NT: Use ad_util to enable the VM debug flag, then check the console window during similar scenarios. The console window will show all call-progress information received from the switch. The “CallState” values can be found under the heading “Call Progress Status”, and the “otherInfo” values can be found under the subheading “Supplementary Information to Call Progress Status”, both in Appendix A of this manual.

2253 Minor Error

Cause: VM was unable to retrieve a digit that was entered by the user causing the digit to be lost. The return code isolates the cause.

Impact: The user may hear prompts or messages continuing to play when they should have been interrupted. Subsequent digits may be incorrectly interpreted as different commands.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This can happen if the VM task has trouble communicating with the VSS program. Either the VSS is dead or it has been improperly engineered during design. Check that all voice channels (VSS programs) are properly loaded by using the PRM_CONTROL utility and by ensuring that each channel can accept new calls. Disable and re-enable any channels not properly loaded (the particular channel that caused the SEER can be determined by the channel number printed in the SEER). If the problem still occurs when all channels are properly loaded, contact your NT development organization (the IPC buffers in the VSS task may need to be re-engineered).

2254 Minor Error

Cause: VM encountered a problem while trying to update the message information with the acknowledge or time delivery tags. The return code isolates the cause.

Impact: The current message tagged for acknowledgement or timed delivery will not be tagged as desired. The user will hear the error prompt.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: Examine the message envelope using MD_CM and delete the message if it is corrupt.

2255 Minor Error

Cause: VM encountered a problem playing an address or mailbox ID. The text message indicates the cause. If the text says:

1. “Expanding Distribution list”, the user was addressing a message with a personal distribution list which contains mailbox IDs of deleted users, one of which VM had a problem handling.
2. “Failed to get site info”, VM had trouble translating an address for playing purposes.
3. “Failed to get mailbox number”, VM had trouble translating an address for playing purposes.
4. “Site should be remote”, VM found an address with a non-existent mailbox ID which is either not “remote” or is in a Coordinated Dialing Plan (CDP).
5. “Site should not be in CDP”, VM found an address with a non-existent mailbox ID which is either not “remote” or is in a Coordinated Dialing Plan (CDP).
6. “External address not from”, VM was trying to play “to a non-user” or some prompt including the segment “system” which is not the prompt “from system”.
7. “mt_RecType — TmptBase mismatch”, VM was trying to play “to a non-user” or some prompt including the segment “system” which is not the prompt “from system”.
8. “OnNet Address not FROM” then VM was trying to play the prompt “a message from an OnNet user”.
9. “OnNetAddr: DN”, then an OnNet Address could not be converted for playback in the user’s context.
10. “NonUser: DN”, then an external non-user address could not be converted for playback in the user’s context.

The return code isolates the cause.

Impact:

Case 1.	The user will hear the error prompt “There is no mailbox at: (digits).”
Cases 2, 3.	If VM encountered an undefined site ID, the user will hear “Deleted Site” otherwise the user will hear the error prompt “The caller’s number isn’t known”.
Cases 4, 5.	The user will hear the prompt “Deleted Site”.
Cases 6–8.	The user will hear the error prompt “The caller’s number isn’t known”.

Cases 9, 10. The address may be voiced incorrectly.

Action: Look up the return code for more information. If the code does not help, contact your NT support organization.

NT: More information on system translation of network address can be seen in the console window. This information is available for systems with networking or NMS when the debug flag is activated using ad_util.

2256 Minor Error

Cause: VM encountered a problem during name addressing.

1. If the text says “Failed to reset advice in NADetermine”, or “Failed to reset advice in FindAllNames”, or “Failed to reset advice in pspNam2Addr”, or “Failed to reset advice in pspNamList”, or “Failed to reset advice in ps pPNam2Addr”, the VM failed to reset the keypad language after the user had cancelled name addressing or encountered an error.
2. If the text says “Keypad lang ND or ChgAdvice failed”, the keypad language is undefined or VM failed to reset the keypad language. This error would occur just after the user enters the name addressing prefix.
3. If the text says “Could not find or write out record”, VM was unable to add a name address to the address list of either a message or a distribution list.
4. If the text says “Could not MkAddress for name”, VM was unable to create an address for a user found by name addressing.
5. If the text says “could not find next name”, VM had problems finding entries in the Organization Directory or found less than two entries while creating a user requested list for name addressing.
6. If the text says “Problem in pspNam2Addr”, VM had a problem searching the Organization Directory for a specific name.
7. If the text says “Insufficient memory available”, VM does not have enough space to create a list of the names that may be matched.

The return code isolates the cause.

Impact: Case 1. Searches in the Organization Directory may produce incorrect results.

Case 2. The user will hear the error prompt. Name addressing will be terminated and the user returned to the point where the prefix had been entered.

Case 3. The user will hear an error prompt and then be placed on the current message in the mailbox.

Case 4. If this happens while VM was collecting names for a user requested list of matches there are two possible results. The first result is that one name (per SEER) will be left out of the list. The second occurs if the list ended up with less than two valid addresses thereby causing a second SEER. The user will hear the error prompt and then is returned to where he or she accessed name addressing, either in the user's mailbox or at the beginning of express messaging.

This could happen during a "Name Addressing" unique match. The result in this situation is identical to the second result but the extra SEER is not generated.

Cases 5, 7. The user will hear the error prompt "Your command cannot be completed. Please try again later or contact your administrator." If the user had been addressing a message or a distribution list, then the user is placed back in their mailbox, otherwise the user is placed at the beginning of Express Messaging.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: Cases 1,2,4–7. If the return code does not point to the problem, collect all relevant information and contact your Northern Telecom development organization.

Case 3. If addressing a message, the message may be corrupt. Use MD_CM and MD_MT to check the message envelope and header, and delete the message if necessary. If adding a name to a personal distribution list, the user profile may be corrupt. Check and rebuild if necessary using ad_util.

2257 Minor Error

Cause: VM encountered a problem during Remote Notification.

1. If the text says "Failure reading PersProf RemNotif Record", or "Failure reading RemNotif Temporary Schedule Record", or "Failure reading RemNotif Business Days Schedule Record", or "Failure reading RemNotif Non-Business Days Schedule Record", or "Failure calling dd_QuickInfo on PersProfile", VM encountered an error reading the Remote Notification section of the user's personal profile.
2. If the text says "Failure writing/adding/deleting RemNotif Temporary Schedule Record", or "Failure writing/adding/deleting RemNotif Business Days Schedule Record", or "Failure writing/adding/deleting RemNotif

Non-Business Days Schedule Record", VM encountered an error updating the Remote Notification section of the user's personal profile.

3. If the text says "Failure writing PersProf RemNotif Record", VM encountered an error updating the Remote Notification section of the user's personal profile.
4. If the text says "Failure in ChgMode of PersProfile for write", VM could not get exclusive write access to the user's personal profile. For example, there might be simultaneous access to the user's personal profile if the MM1 or OCS is currently updating the user's mailbox.
5. If the text says "Could not read PersProfile Msg'ing record", or "Failure updating current view of profile", the user's remote notification schedules could not be read in before they were updated.
6. If the text says "Failure converting netDN for RemoteNotif <dn>", VM could not convert a Network DN to a phone number to announce relative to the user's context. A phone number in the user's remote notification schedule or the network database may be corrupt. The return code isolates the cause.
7. If the text says "Failure converting input DN for RemoteNotif <dn>", VM could not convert a phone number entered by the user to a Network DN.
8. If the text says "Failure checking RemNotif dial restriction/permission list", VM could not check a phone number against the restriction/permission list.
9. If the text says "Could not NewVar the OutCalling variables", VM did not have enough memory for required operation. May be caused by memory fragmentation over extended system usage, or if it happens frequently, then the system was engineered incorrectly. This is a major problem caused by lack of memory.

   The return code isolates the cause.

Impact:

Case 1. The Remote Notification information cannot be determined. The user may not be allowed to change the remote notification schedules.

Case 2. The schedule cannot be added/changed/deleted. The previous schedule (if it existed) may or may not be overwritten.

Case 3. The outcalling data/fields cannot be added/changed/deleted. The previous data (if it existed) may or may not be overwritten.

Case 4. The Remote Notification information could not be read/added/changed/deleted. This problem will clear within a short time and the user should be able to try again with success.

Case 5. The Remote Notification information, which is currently in effect, may be overwritten with old data.

	Case 6.	The user may hear the Network DN played back in an incorrect format.
	Case 7.	The user will hear the prompt “Your command cannot be completed at this time. Please try again later or contact your administrator” and the specified phone number will not be stored in the user’s remote notification schedule.
	Case 8.	The user will hear the prompt “That number cannot be reached from this service”. and the specified phone number will not be entered into the user’s remote notification schedule.
	Case 9.	If this message appears while the user is trying to log in, the user will not be able to log in to that mailbox, but will be prompted to try again or to log in to another mailbox. If this message appears while the user is already logged in, and tries to use the remote notification setup command, the user will not be allowed to use the command and will hear an error prompt.
Action:	Cases 1-8.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 9.	Disable and then re-enable the offending channels. Contact your NT support organization.
NT:	Cases 1-3.	The user’s profile may be corrupt. Check and rebuild the profile if necessary using ad_util.
	Case 4.	If the administrator was updating the user via the MMI at the time of the SEER then there is no problem. Otherwise if the problem persists then the OCS or MMI may be stuck while accessing this user. Restart the MMI and/or OCS using PRM_CONTROL.
	Case 5.	See Cases 1–3.
	Cases 6, 7.	If the system has the networking or NMS features installed then ensure that the network database is set up correctly. If you can’t access the network information using the MMI then the database can be rebuilt using the UI_NETWORK package. More information can be obtained by enabling the VM debug flag using ad_util then checking the console window in similar scenarios. Case 6 may also indicate corruption in the user profile. This can be checked and corrected using ad_util.
	Case 8.	Check the restriction/permission lists in the ORGPROF using ad_util. If any problems are encountered, the ORGPROF may be corrupt and

should be rebuilt. Otherwise, the user's profile may be corrupt. This can also be checked and rebuilt using ad_util.

Case 9. If disabling/re-enabling of channels on Meridian Mail does not help, then a problem with the hardware (RAM, ESBC or SCSI boards) may be indicated. You can perform a full memory test during bootup diagnostics to determine this.

2258 Minor Error

Cause: VM encountered a problem with the change of the user's Operator Assistance Number.

1. If the text says "Failure converting netDN for CustOpRev <dn>", VM could not convert the Operator Assistance Number for playback in the user's context.
2. If the text says "Failure converting input DN for CustOpRev <dn>", VM could not convert a phone number.
3. If the text says "Failure checking CustRev dial permission/restriction list", VM could not check a phone number against the permission/restriction list.
4. If the text says "Failure in ChgMode of PersProfile for write", VM could not get exclusive write access to the user's personal profile.
5. If the text says "Could not read PersProfile Msging record", or "Failure writing the Operator Assistance Number", VM could not access the user's personal profile.
6. If the text says "Failure in ChgMode of PersProfile for read, VM could not relinquish exclusive write access to the user's personal profile.

The return code isolates the cause.

Impact:

Case 1. The user will hear the Network DN played.

Case 2. The user will hear the prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."

Case 3. The user will hear the prompt "That number cannot be reached from this service".

Cases 4, 5. The user will hear the prompt "Your command cannot be completed at this time. Please try again later or contact your administrator". The Operator Assistance number could not be changed.

Case 6. The user will hear the prompt "Your command cannot be completed at this time. Please try again later or contact your administrator". The operator assistance number will be changed as specified by the user.

A SEER will signify when the user's profile is closed and cleaned up by the VS sweeper.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT:
- Cases 1–2. See SEER 2257, Cases 6–7.
- Case 3. See SEER 2257, Case 8.
- Case 4. See SEER 2257, Case 4.
- Case 5. The user's profile may be corrupt. Check and rebuild if necessary using ad_util.
- Case 6. See SEER 2257, Case 4.

2261 Minor Error

Cause: VM has read/written corrupt or inconsistent data on the disk.

1. If the text says "Cabcounter wrong" or "cm_tCounters" then the counters for the number of unread, urgent, or total voice messages in the user's mailbox is wrong.
2. If the text says "Can't Play Msg Create Date", or "Can't Play Msg Sent Date", then a time/date stored in a message header or user mailbox/cabinet is corrupt.

Impact:
- Case 1. The number of new or urgent messages announced to the user may be wrong (during login). For example, it might say there are no new messages when really there is one new message. If the user subsequently discovers the new message (i.e., at the next login), it may appear as if the message delivery had been delayed.
- Case 2. A time/date will not be played, or will be played incorrectly or partially. Impact varies depending on the feature being used at the time. For example, the date/time a message was received may be incorrect or not announced.

Action:
- Case 1. Contact the user whose mailbox is shown in the SEER and determine the scenario causing the SEER. Ask the user not to change his/her mailbox (by reading, deleting, composing, or sending messages until the problem is investigated further. Make a copy or write down the information in the SEER which says "cm_tCounters", then contact your NT support organization.

	Case 2.	Contact the user whose mailbox is shown in the SEER and determine the cause of the SEER (the current feature can be determined by the secondary return code). Contact your NT support organization.
NT:	Case 1.	The information in the SEER containing “cm_tCounters” is the CabCounter record at the time of the problem. Notify the development organization to interpret this. The current CabCounter record for this user’s mailbox can be viewed using the MD_CM utility.
	Case 2.	Check the “DateCreated” field of all messages in the users’ mailbox using the MD_CM utility. Check the “Sent Date” field of all messages in the user’s mailbox using the MD_MT utility. If the SEER contains “mt_oOrigDate”, then the date in an NDN or ACK type message is corrupt. Delete any messages found to have corrupt dates.

Class 24 Voice Processor Handler (VPH)

Introduction

The Voice Processor Handler (VPHDLR or VPH) subsystem:

- transfers commands between the multimedia DSP port and the Voice or Fax I/O package in the application program
- initiates data transfers to and from disk
- transfers DTMF digit reporting from the DTR algorithm on the Voice Processor card to the application
- monitors the health of the “driver” (sub-band coding and DTR) portion of the software for the voice processor card
- performs 2500 set emulation for non-CSL (non-ISDN/AP) configurations

Failures in the VPH can cause abnormal termination of the current session and corruption of the voice or Fax message. The software usually recovers, so no action is required for most one-time occurrences of a given SEER. If a SEER appears persistently, contact your NT support organization. Sometimes a port should be disabled and re-enabled.

A class 24 SEER generally contains:

- a text description of the problem or event
- the DN that is outputted is the DN assigned in the Channel Allocation table (CH=DN)

Reports

2401 Minor Error

Cause: An error occurred while sending to the VPIO task.

Impact: Varies. Often none, at worst the current recording will be lost.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: If the task result is 21 or 27, the problem is transient. Otherwise, contact NT-TOR.

2402 Minor Error

Cause: Firmware on the Voice Processor Peripheral does not respond.

Impact: Varies. Often none. At worst, the last ten seconds of recording are lost.

Action: The firmware will be automatically reloaded. If the error persists on the same port, there might be a hardware problem, in which case disable the card where the port is located and run the off-line tests on the card. If the problem still can't be identified, contact your NT support organization.

NT: Contact the DSP group at NT-TOR.

2403 Minor Error

Cause: Disk or software too slow to read or write a block of voice within the expected time. This may happen when the system audits are running.

Impact: Varies. At worst, the session will take itself down (if the problem occurs continuously). Ordinarily, a few seconds of recording may be lost.

Action: If the error persists outside of audit time, contact your NT support organization.

NT: This is most likely caused by the VPIO task running too slowly. Contact Northern Telecom's development organization (NT-TOR).

2405 Minor Error

Cause: Peripheral Voice Processor Firmware message queue problem.

Impact: Varies. Often none. At worst the last 10 seconds of recording are lost.

Action: If the error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A problem may exist in the DSP software.

2406 Minor Error

Cause: Sending a message to the VSS has failed.

Impact: The VSS may lose call progress information and/or digit arrivals. The user may not be able to perform telephony functions, such as call transfer. Calls may not be answered.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: If the task result is 21 or 27, the problem is transient. Otherwise, contact NT-TOR.

2408 Minor Error

Cause: Application and filing software too slow to clear buffer of receive / record data.

Impact: Three to four seconds of recording may be lost.

Action: If the error persists, disable and enable the port.

NT: None.

2410 Minor Error

Cause: May be excessive load on system.

Impact: Three to four seconds of recording or a portion of the current Fax may be lost.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2411 Minor Error

Cause: Communication error between the VPHDLR and voice processor firmware.

Impact: Varies. A few seconds of voice may be lost. The session may be taken down.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2412 Minor Error

Cause: Communication error between the VPHDLR and voice processor firmware.

Impact: Varies. A few seconds of voice may be lost; session may be taken down.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2413 Minor Error

Cause: Error in reading data from disk.

Impact: For voice, there is an imperfect playback for a few seconds. For Fax, the current Fax session is ended.

Action: If error persists, contact your NT support organization.

NT: There may be a problem with the disk or MI software. The disk may have to be replaced.

2414 Minor Error

Cause: Disk write error.

Impact: For voice, a few seconds of voice are lost. For Fax, the current Fax operation is ended.

Action: If error persists, contact your NT support organization.

NT: There may be a problem with the disk or MI software. Contact NT-TOR.

2417 Minor Error

Cause: On-error entry invoked on sending to VPIO task.

Impact: Varies from nothing to losing message currently being recorded.

Action: If error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: If the task result is 21 or 27, the problem is transient. Otherwise, contact NT-TOR.

2418 Minor Error

Cause: On-error entry invoked on sending to application.

Impact: Playback may be truncated. Recording may be lost. Calls may not be answered. Digits may be lost.

Action: If error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: If the task result is 21 or 27, the problem is transient. Otherwise, contact NT-TOR.

2419 Info Error

Cause: Disk and filing software too slow during heavy load.

Impact: Voice may be played with gaps of silence interrupting playback. Portions of a FAX may not be printed.

Action: If error persists, or appears to happen during light load or outside of disk audit time, disable the card where the port is located, run offline tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: This is caused by the VPIO task running too slowly. Contact Northern Telecom's development organization (NT-TOR).

2420 Info Error

Cause: More data has arrived than the disk and filing software can process.

Action: If error persists, or appears to happen during light load or outside of disk audit time, disable the card where the port is located, run offline tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: This is caused by the VPIO task running too slowly. Contact NT-TOR to investigate task priority re-engineering.

2422 Minor Error

Cause: Communication problem between VPHDLR and voice processor firmware.

Impact: Varies from no impact to garbled/no playback to 10–15 seconds of current recording being lost.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2425 Minor Error

Cause: Problems in starting or stopping the voice processor firmware.

Impact: Channel out of service.

Action: Disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent. contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2426 Minor Error

Cause: Problems in starting up voice processor firmware.

Impact: Channel out of service.

Action: Disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2427 Minor Error

Cause: Problems in starting up voice processor firmware. An odd address has been deleted.

Impact: Channel out of service.

Action: Disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent. contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2428 Minor Error

Cause: Communication problem between the VPHDLR and the voice processor firmware.

Impact: A port will be unavailable.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2429 Minor Error

Cause: Unexpected disk block during playback.

Impact: Varies from no impact to silence during playback or garbled playback/prompts.

Action: If error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: The file that the block belongs to may have to be searched out and deleted if the same block repeatedly causes problems.

2430 Minor Error

Cause: Cannot assign timer from OS.

Impact: VPH will die. A port will not be available until the VPH is reloaded.

Action: Affected VPH will be reloaded. If error persists, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2431 Minor Error

Cause: End of block report from voice processor not during playback or record. Software logic or communication problem.

Impact: None.

Action: If error persists, disable the card where the port is located. run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A software design error may be present. Contact NT–TOR.

2432 Info Error

Cause: Communication problem between VPHDLR and voice processor firmware.

Impact: Varies from no impact to garbled/no playback to 10–15 seconds of current recording being lost.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2433 Minor Error

Cause: File I/O problems while starting up voice processor firmware.

Impact: Channel out of service.

Action: If error persists, disable and enable port. If it still persists, contact your NT support organization.

NT: Check the integrity of the DSP files on disk. They may have to be reinstalled from tape.

2434 Minor Error

Cause: Problem detected on call initiation.

Impact: Transfer or out-dial attempt fails.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: If the SEER string contains the word "PSPMacAbort", then a problem occurred while making a direct call or a call transfer via the DSP. Outcalls are made when calling an external number, when transferring the user to another number, or when logging in our out an agent on the Meridian 1 switch. The outcall is performed by a macro that is run on the DSP, in the TelScan module.

The 4-digit hex codes at the end of the SEER are meaningful only to the designer.

'PSPMacAbort—Fails to seize line on call initiation 1';

The DSP macro tried to go offhook or do a flash-hook, but the DSP did not respond. Check that the line is properly connected and that the line type setting on the GSP card actually matches the physical line type.

'PSPMacAbort—NoDialTone after Offhook on call initiation 2';

The DSP macro successfully performed an offhook command, but no dial-tone was heard. Check that the line is properly connected and produces dialtone, and that the line type setting on the GSP card actually matches the physical line type. Often, it is caused by a call collision where a call coming in just as the outcall was being made causes the incoming call to be answered, and no dial tone is heard. This is a normal condition and no action is required in this case.

'PSPMacAbort—Dial Tone not broken by digit on call initiation 3';

This line verification feature is not implemented in the DSP, and therefore, will never appear.

'PSPMacAbort—UnExpected interrupt received on call initiation 4';

The DSP received an unexpected event from the line while trying to perform a call initiation. It is often caused by a user who begins a thrudial or call-sender operation, but then hangs up prematurely.

Check also that the Meridian 1 switch did not drop the line prematurely due to maintenance activity.

This SEER may also occur during call collision, as the DSP will detect a ringing signal before it goes offhook. This is a normal condition and no action is required in this case.

'PSPMacAbort—Tone Generator did not reply on call initiation 5';

The DSP failed to pulse out the digits to the line. This is an indication of a DSP firmware design error. The DSP designer group should be contacted.

2435 Info Error

Cause: Software logic in VPIO or VPHDLR, or communication problem.

Impact: Varies from no impact to some "system error" prompts.

Action: If error persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2436 Minor Error

Cause: Disk corruption or software logic problem.

Impact: Playback, or the current Fax operation may be stopped.

Action: If error persists, disable and enable port. If it still persists, contact your NT support organization.

NT: The disk may be corrupted, and the offending file may have to be removed.

2438 Minor Error

Cause: Software logic or communication problem between VPHDLR and VPIO.

Impact: Varies. At worst, a few seconds of recently recorded voice may be lost.

Action: If error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR. Error may also be due to a buffer problem between the VPH and VPIO tasks.

2440 Minor Error

Cause: Communication problem between the VPHDLR and the voice channel allocator.

Impact: Voice port may be out of service until the channel is manually disabled and re-enabled.

Action: If the channel has problems playing or recording, disable and enable the port. If the problem persists, system may require a reboot.

NT: None.

2441 Minor Error

Cause: VPHDLR initiate failed.

Impact: Channel out of service.

Action: Disable the associated card, run off-line tests, then re-enable the voice card. If that fails, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs. Memory re-management may be required.

2442 Critical Error

Cause: Newpool fails for VPHDLR.

Impact: Channel out of service.

Action: Disable the associated card, run off-line tests, then re-enable the voice card. If that fails, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2443 Critical Error

Cause: AddPool fails for VPHDLR.

Impact: Channel out of service.

Action: Disable the associated card, run off-line tests, then re-enable the voice card. If that fails, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2446 Minor Error

Cause: Communication problem between the VPHDLR and the voice channel allocator.

Impact: VCA loses state of VPH. The port may become unavailable.

Action: If error persists, disable and enable the port. If this does not work, contact your NT support organization.

NT: A software design error may be present. Contact NT-TOR.

2449 Minor Error

Cause: Communication problem between the VPHDLR and SMDI link. Most likely, the SMDI link handler is not operating.

Impact: Calls will not be answered.

Action: Contact your Northern Telecom support organization.

NT: Ensure that the SMDI link handler is running.

2450 Info Error

Cause: VPHDLR does not allow the requested command to be executed in its current state.

Impact: None

Action: If the problem persists, disable and re-enable the channel.

NT: None.

2451 Info Error

Cause: The command received by the VPHDLR is not supported.

Impact: None.

Action: Contact your Northern Telecom support organization.

NT: A software design error may be present. Contact NT-TOR.

2452 Minor Error

Cause: The VPHDLR has an internal state table error.

Impact: The call may not be answered or may disconnect unexpectedly.

Action: Contact your Northern Telecom support organization.

NT: A software design error may be present. Contact NT-TOR.

2453 Info Error

Cause: The VPHDLR timed out with an unknown timer value.

Impact: None

Action: Contact your Northern Telecom support organization.

NT: A software design error may be present. Contact NT-TOR.

2454 Info Error

Cause:
1. On an incoming call, the VPHDLR timed out while waiting for the call information from the SMDI link handler.
2. VPHDLR timed out waiting for the incoming call detection after receiving call information from the SMDI link handler.

Impact: The default service will be started.

Action: Make sure that the CSE can support the call load. Disable the card where the port is located, run off-line tests, then re-enable the card.

If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: If the problem persists, make sure the SMDI link handler is operating and line connections to the Modular Option GP cabinet are secure. Ensure that the CSE can support the call load. Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2455 Minor Error

Cause: The voice processor firmware informs VPHDLR of problems with the voice lines from the Meridian 1 switch to the Meridian Mail machine.

Impact: Calls may not be answered.

Action: Check the voice line associated with the bad channel, and run line diagnostics on the CSE. On Meridian Mail, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2456 Info Error

Cause: A DTMF tone of two or more minutes has continuously been detected by the voice processor firmware.

Impact: None

Action: If the problem persists, disable the card where the port is located, run off-line tests, then re-enable the card. If the error still persists and the cause of the problem isn't apparent, contact your NT support organization.

NT: Check that the lines to the Meridian 1 switch are quiet.

2457 Minor Error

Cause: Internal VPHDLR software error.

Impact: No voice will be heard or recorded. Calls may not be answered.

Action: Contact your Northern Telecom support organization.

NT: A software design error may be present. Contact NT-TOR.

2459 Info Error

Cause: An unknown signal or digit has been detected by the voice processor software.

Impact: A digit may be missed.

Action:
1. Run voice processor diagnostics program.
2. Check ports for unusual noise conditions.

NT: None

2460 Info Error

Cause: Application task request to start voice detection while voice detection is already in progress.

Impact: The request is ignored by VPHDLR.

Action: If the problem persists, contact your NT support organization.

NT: Notify the development organization to see if incorrect software is installed.

2461 Info Error

Cause: Bad or undefined message is received from the DSP while waiting for voice detection result.

Impact: The message is ignored.

Action: If the SEER persists, disable affected voice card, run off-line tests and enable the voice card.

NT: Notify the development organization to see if incorrect software is installed.

2462 Minor Error

Cause: A tasking error occured when VPH_PROCS was communicating with the VPHDLR.

Impact: The requested operation will fail.

Action: Contact your NT support organization.

NT: Determine the reason for the tasking error. May need to disable and enable the associated voice port to recover.

2464 Minor Error

Cause: Failure to communicate with the VCM.

Impact: Information sent to the VCM may be lost.

Action: Check the surrounding VCM SEERs and act accordingly. If the VCM is functioning, disable then re-enable the corresponding node.

NT: If the problem persists, contact Northern Telecom's development organization.

2470 Info Error

Cause: The re-login timer was not previously cancelled.

Impact: The port may not be logged into the ACD/UCD group on the Meridian 1 switch side and will not receive any calls. All outgoing calls on this port will fail.

Action: May have to disable and then enable the port.

NT: None

2471 Info Debug

Cause: Port being disabled or enabled incorrectly.

Impact: Port may remain out of service.

Action: If the port is out of service, enable it.

NT: None

2472 Minor Error

Cause: Port failed to log in or log out of the group when enabled or disabled.

Impact: Port remains out of service. If the logout disable fails, calls will still be presented to the table.

Action: Check the login and logout codes in the hardware database. They must correspond to the CSE.

NT: None

2473 Info Error

Cause: Port failed trying to log in or log out of group.

Impact: Port will automatically retry.

Action: None

NT: None

2474 Info Debug

Cause: Failure to allocate memory during the system start-up time.

Impact: The corresponding node will run without DSP ports.

Action: Disable then re-enable the node.

NT: This is an engineering problem. Contact Northern Telecom's development organization.

2475 Minor Error

Cause: Dialtone was not received after ToneGen command causing timeout to occur.

Impact: Outgoing call cannot be completed.

Action: Check status and wiring of the Meridian 1 switch. If both are OK, disable the affected card, run off–line tests on the card, then re-enable the card.

NT: Contact NT–TOR.

2476 Minor Error

Cause: Outgoing call has not been established yet.

Impact: None

Action: None

NT: None

2477 Minor Error

Cause: The FASCII block cannot be transmitted because the font table is incompatible.

Impact: The text block is not printed on the remote Fax machine.

Action: The system may not have the correct font table installed. Contact your NT support organization for assistance.

NT: Check cabinet "/1/fonts" to ensure that all required fonts are installed.

2480 Critical Error

Cause: VPH parent program could not get required memory on startup.

Impact: Voice ports are not available on the node.

Action: Analyze the other seers around to determine the problem. If you are unclear about the problem, contact your Northern Telecom support organization.

NT: Contact the designer group (NT-TOR). Problem resolution requires the analysis of surrounding SEERs.

2481 Critical Error

Cause: Could not assign the appropriate space for heaps.

Impact: Voice ports are not available on the node.

Action: Analyze the other seers around to determine the problem. If you are unclear about the problem, contact your Northern Telecom support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2482 Info Error

Cause: The memory requested is not the same as the memory used.

Impact: None

Action: None

NT: If the problem persists, contact Northern Telecom's support organization.

2483 Info Error

Cause: More VPH child tasks are being asked to startup than were specified in the startlist.

Impact: No more ports can be enabled.

Action: Contact your Northern Telecom support organization.

NT: Check that the # voice channels specified in the startlist match the # channels that can be enabled for the node.

2484 Minor Error

Cause: Could not send information to the child task. Check task result.

Impact: The port is not started up properly.

Action: Disable then re-enable the port.

NT: None.

2485 Minor Error

Cause: The internal table storing this information is corrupt.

Impact: The port is not enabled.

Action: May require disabling all the voice ports on this node and then re-enabling them. If problem persists, reboot the node.

NT: None.

2486 Minor Error

Cause: A child task has crashed or terminated, but the parent does not know which port.

Impact: A port is out of service and cannot be automatically re-enabled as it is not reported to the VCM.

Action: Analyze the other SEERS around to determine the problem. Enable the port that is out of service. If problem persists, reboot the node.

NT: None.

2487 Minor Error

Cause: Data is not passed correctly on startup.

Impact: Voice ports are not available on the node.

Action: Contact your Northern Telecom support organization.

NT: Analyze the other SEERs around to determine the problem. Check the VPH entry in the startlist is correct.

2488 Minor Error

Cause: Unable to get and allocate the required memory.

Impact: Voice ports are not available on the node.

Action: Analyze the other SEERs around to determine the problem. If you are unclear about the problem, contact your Northern Telecom support organization.

NT: Contact NT-TOR. Problem resolution requires the analysis of surrounding SEERs.

2489 Minor Error

Cause: PPComm task is not up or has not registered properly. Check the return code and contact your Northern Telecom support organization..

Impact: Voice ports will not function.

Action: Contact your Northern Telecom support organization.

NT: Make sure the PPComm task comes up first.

2490 Critical Error

Cause: Could not register parent with VCM. Check the return code.

Impact: Voice ports are not available on the node.

Action: Analyze the other SEERs around to determine the problem. If you are unclear about the problem, contact your Northern Telecom support organization.

NT: None.

2491 Info Error

Cause: A VPH experienced an exception error.

Impact: The DSP port is temporarily out of service but will reconnected itself later.

Action: No action is required since the DSP port will be reconnected itself later.

NT: None.

2492 Info Admin

Cause: A VPH experienced a completion. This may be the result of an exception or a Courtesy/Maintenance Disable by the administrator.

Impact: If the exception is the result of the exception, the port will be restarted.

Action: Check surrounding SEERs to determine the problem. If you are unclear about the problem, contact your Northern Telecom support organization.

NT: None.

2493 Minor Error

Cause: The VCM is trying to start a VPH on a channel that already has a VPH.

Impact: The channel will not load completely.

Action: Disable and re-enable the channel.

NT: None

2499 Info Debug

Cause: Debugging SEERs for the VPH.

Impact: None

Action: None

NT: None

Class 25 Application Module Link (AML)

Introduction

The Application and Module Link (AML), formerly called the Command and Status Link (CSL) Subsystem, handles the transfer of messages between the Meridian 1 and Meridian Mail. The AML interfaces with VSS, OS and other applications such as MMI.

The two major functions of the AML are communicating with the link layer using LAPB protocol and communicating with an application task using the GTI interface.

AML errors can cause channels to be lost and a node to fail. Messages are lost in the process. A reboot is usually necessary after an AML failure.

A Class 25 SEER generally contains:

- State of the AML link
- State of the agents on the ACD queue
- Information about problems, such as link communication, state transition
- Task communication

Reports

2501 Minor Error

Cause: A tasking error occurred, which means the AML failed to communicate with an application task.

Impact: The message sent to the application will be lost.

Action: Check that all channels are recovered (using the system status screen).

NT: Take a note of the tasking error code, and contact Northern Telecom's support organization.

2502 Minor Error

Cause: Application task tried to login to AML with an invalid directory number (DN).

Impact: AML will reject the logon.

Action: Find out what application tried to logon. Check the channel allocation table and correct the DN if necessary.

NT: Check the VC port definition in the hardware database using MD_MA and check the ACD DN definition on the Meridian 1 side.

2503 Major Error

Cause: Hardware Database operation failed.

Impact: The AML might fail to start correctly and the VSS might not be able to login. This means that voice messaging might not start.

Action: Contact your NT support organization.

NT: Check the hardware database using MD_MA to see that all information was entered correctly.

2504 Minor Error

Cause: Failed to close hardware database.

Impact: None

Action: Contact your Northern Telecom support organization.

NT: Check the hardware database using MD_MA to see that all information was entered correctly.

2505 Info Error

Cause: AML link is up.

Impact: The link down condition has recovered back to normal service.

Action: None

NT: None

2506 Minor Error

Cause: Unknown call direction from the Meridian 1.

Impact: The presented call will be treated as a direct call automatically.

Action: None

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

2507 Major Error

Cause: The Meridian 1 is overloading.

Impact: Messages might be lost.

Action: Contact your NT support organization.

NT: Check the configuration to ensure that the Meridian 1 can support that many channels.

2508 Minor Debug

Cause: Failed to send message to Meridian 1.

Impact: That message will be lost.

Action: Check the link. Disable and enable the ESDI. Reboot the system. Contact your NT support organization if the problem persists.

NT: If the problem persists, contact Northern Telecom's support organization.

2509 Major Error

Cause: AML's lower layer is not ready.

Impact: Link is not ready.

Action: Check the link. Disable and enable the ESDI. Reboot the system. Contact your NT support organization if the problem persists.

NT: If the problem persists, contact Northern Telecom's support organization.

2510 Minor Error

Cause: Receive queue is full.

Impact: Messages will be lost.

Action: If the problem persists, contact Northern Telecom's support organization.

NT: Check the configuration to ensure that the Meridian 1 can support that many channels.

2512 Major Error

Cause: Failed to register to NameServer as link handler.

Impact: The voice messaging system will fail to start.

Action: Reboot the system. If the problem persists, contact your NT support organization.

NT: Check the return code for more information. Ensure that the name server is running.

2513 Major Error

Cause: AML failed to start the lower layer.

Impact: AML will fail to start.

Action: Check the link. Disable and enable the ESDI. Reboot the system. Contact your NT support organization.

NT: If the problem persists, contact Northern Telecom's support organization.

2514 Minor Error

Cause: Argument string in the startlist for AML is out of range.

Impact: AML will start with the maximum number of channels (96).

Action: Contact your NT support organization.

NT: Check the startlist against the release notes.

2515 Minor Error

Cause: No Argument string in the startlist for AML.

Impact: AML will start with the maximum number of channels (96).

Action: Contact your NT support organization.

NT: Check the startlist against the release notes.

2516 Major Error

Cause: Failed to allocate memory segment.

Impact: AML will not start.

Action: Check the memory card.

NT: Check the preceding SEERs to make sure that the number of channels in the startlist is correct. Look for the following:

- 2515 "AML—No argstring, 96 channels assumed"

- 2514 “AML—argstring out of range, 96 channels assumed”

If these messages occur, change the maximum number of channels in the startlist to twice the number of channels on the system and reboot. If the problem persists, contact your NT support organization.

2517 Major Error

Cause: Failed to create new buffer pool.

Impact: AML will fail to start.

Action: Check the memory card and reboot the system. If the problem persists, contact your NT support organization.

NT: If no hardware problem, check the parameter in the startlist for AML. Make sure the number is twice the number of channels.

2518 Major Error

Cause: Failed to initiate the AML task.

Impact: AML will fail to start.

Action: Check the memory card and reboot the system. If the problem persists, contact your NT support organization.

NT: If no hardware problem, check the parameter in the startlist for AML. Make sure the number is twice the number of channels.

2519 Major Error

Cause: Failed to add buffer pool together.

Impact: AML will fail to start.

Action: Check the memory card and reboot the system. If the problem persists, contact your NT support organization.

NT: If no hardware problem, check the parameter in the startlist for AML. Make sure the number is twice the number of channels.

2520 Major Error

Cause: AML link down.

Impact: Messages could be lost.

Action: Check the link. Disable and enable the ESDI. Reboot the system. Contact your NT support organization if the problem persists.

NT: If the problem persists, contact Northern Telecom's support organization.

2521 Minor Debug

Cause: Layer 2 has received a bad frame from the AML link.

Impact: Layer 2 will initiate appropriate recovery steps. There is no user impact. The link will not go down as a result.

Action: None

NT: If the SEER is printed, contact Northern Telecom's development organization (NT-TOR) to disable this SEER.

2522 Minor Admin

Cause: Meridian Mail is trying to update the MWI lamp on a DN that is nonexistent in the Meridian 1's database.

Impact: MWI is not updated for the user.

Action: Check the DN printed with the SEER, and verify if it exists in the Meridian 1.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

2523 Minor Error

Cause: AML link handler has timed out waiting for the traffic congestion condition to clear in the LAPB protocol layers. The condition could be caused by heavy traffic or protocol errors.

Impact: AML link handler will instruct the protocol layers software to reset the link to recover. The link will be down momentarily.

Action: None required. The congestion condition is transient in nature and the link will recover automatically after reset.

NT: If the problem persists, contact Northern Telecom's support organization.

2524 Major Error

Cause: The system ID was not defined on the Option 11.

Impact: The system will not come up.

Action: Contact your Northern Telecom support organization.

NT: Check with manufacturing to provide the proper software module on the Option 11.

2525 Major Admin

Cause: The time of day was not set up on the Meridian 1.

Impact: The voice channels will not come up. No Meridian Mail service will be available.

Action: Use overlay 2 on the Meridian 1 to set the proper time of day.

NT: None

Class 26 Peripheral Processor (PP)

Introduction

The Peripheral Processor (PP) Subsystem, also known as the DSP, has two main parts: the PP_LOADER and the PP_COMM.

The PP_LOADER maintains and loads the PPs according to a predefined logical state diagram.

The PP_COMM sets up the Digital Signal Processor (DSP) shared memory, executive registers and message queues; sets up the interrupt message queue; handles DSP interrupts and the dispatching of driver events; provides voice tap control, DSP driver control, and DSP executive commands.

Errors in the peripheral processor can cause loss of control over the DSPs, resulting in subsequent loss of voice and even a system crash if the errors are fatal. Some errors are about boards or devices which cannot be located.

A class 26 SEER usually contains:

- status message on peripheral processor state changes
- status message on the DSP loading process
- task results

Reports

2600 Debug Error

Cases 1-6. Critical

Case 7. Info

Cause: The text may say the following:

1. “PP_Comm could not be initiated”
2. “PP_Loader could not be initiated”
3. “PP_Base task could not be initiated”
4. “NEWVAR failure”
5. “NEWPOOL failure”
6. “ADDPOOL failure”
7. “PP: Number of mappable DSPs on Node <node num> is <number>”

Impact:
- Cases 1-3. No voice will be available on the system.
- Cases 4-6. Buffers of the size stated in the SEER will not be allocated. The system will experience task communication problems.
- Case 7. None. This SEER is informational.

Action:
- Cases 1-6. a Disable and enable the node.
  - b Contact your Northern Telecom support organization if the error persists.
- Cases 7. None.

NT:
- Cases 1-3. Check the task result in the SEER. The task result is identified as tr=<number> in the error text.
- Cases 4-6. a Check the task result in the SEER. The task result is identified as tr=<number> in the error text.
  - b Ensure that the “size” in the SEER is an even number.
- Case 7. None.

2602 Info Debug

Cause: If the message text says:

1. “PP_Comm: Kill_DSP, Killed PP*100+Drv_ID = ”, then one of the DSP is killed by VCM.
2. “PP_Comm: Do_PP_AUDIT, # events after PP halted = ”, this is an indication of lost events for the DSP that will be killed.
3. “PP_Comm: PP_Update, On–>Offline. PP =”, there is a change of DSP State from online to offline.
4. “PP_Comm: PP_Update, On–>MtcBusy, PP = ”, there is a change of DSP State from online to Maintenance Busy.

Impact: None

Action: None

NT: None

2607 Major Admin

Cause: Task communication error.

1. PP_Loader: DspReset, PP_Comm.PP_Update Task Error.
2. PP_Loader: DspReset, PP_Comm.PP_Update Failed.
3. PP_Loader: DspRun, PP_Comm.PP_Update Task Error.
4. PP_Loader: DspRun, PP_Comm.PP_Update Failed.
5. PP_Loader: Cannot register globally

Impact: No voice

Action: The following steps should be performed if any of the SEER messages listed are seen:

1. Disable and enable the node.
2. Contact your Northern Telecom Support Organization if the error persists.

NT: The following steps should be performed if any of the SEER messages listed are seen:

1. Check the task result or the return code. The task result is identified as tr=<number> and the return code is identified as rc=<number> in the text.
2. If you failed to resolve the problem, report it to the designer.

2608 Info Debug

Cause: If the message text says “PP_Loader: Probable Timeout waiting for diagnostics”, then there is a timeout waiting for the VP diagnostic program to run.

Impact: None

Action: None

NT: None

2609 Debug Error

Cases 1–30. Major

Cases 31–33. Minor

Cases 34, 35. Info

Cause: 1. PP_Comm: DSP is in infinite loop

2. PP_Comm: PP_Intr invalid msg
3. PP_Comm: Init_Resrc, cannot allocate Exec Driver_ID
4. PP_Comm: Hn_ExeMsg, No Exec msg for TO_PP
5. PP_Comm: Do_PP_Audit wrong seq or msg
6. PP_Comm: Do_PP_Audit, GetMsg failed
7. PP_Comm: Do_PP_Audit, PutMsg failed
8. PP_Comm: Do_PP_Audit, Audit failed
9. PP_Comm: Drv_Start invoked for off-line
10. PP_Comm: Drv_Start, No Driver_Id
11. PP_Comm: Drv_Start, Not enough DSP CPU capacity
12. PP_Comm: Drv_Start, No internal data memory
13. PP_Comm: Drv_Start, No shared data memory
14. PP_Comm: Drv_Start, No private program memory
15. PP_Comm: Drv_Start, Error put msg
16. PP_Comm: Drv_Start, communicating with DSP Exec
17. PP_Comm: Drv_Start, DSP Exec returns incorrect msg type
18. PP_Comm: Drv_Stop, DSP not online
19. PP_Comm: Drv_Stop, Cannot stop an inactive driver
20. PP_Comm: Drv_Stop, Error putting stop msg to the DSP Exec
21. PP_Comm: Drv_Stop, DSP Exec response tmout in Stop cmd
22. PP_Comm: Drv_Stop, wrong msg returned
23. PP_Comm: Drv_Stop, wrong Drv_Id returned
24. PP_Comm: Set_PP_Run, wrong msg
25. PP_Comm: Set_PP_Run, Get Exec
26. PP_Comm: Set_PP_Run, Exec TmOut
27. PP_Comm: Invalid TimeSlot number
28. PP_Comm: Cannot register with name server
29. PP_Comm: Get_CO_IDM – Unsupported number of IDM pages requested
30. PP_Comm: PutMSG – Invalid msg pointer
31. PP_Comm: Do_PP_Audit: DSP NMI occurrence – the DSP has received an apparent non–maskable interrupt.

32. PP_Comm: Do_PP_Audit: DSP timing loss, DSP internal timer ON – the DSP has lost its external timing reference, and is proceeding to use an internal timer.
33. PP_Comm: MultiM driver invoked on non–MultiM DSP – in the Hardware Database, a VCPORT record with Port Type “Multimedia” was found under a DSP record with Pkg Type “General_32” or “NorAmer_16”. This message should not occur unless a problem was encountered during an installation, hardware expansion, or port configuration.
34. Flush_One: <procedure name>, Nil TO_PP_Id
35. Flush_One: <procedure name>, No Exec msg for TO_PP

Impact:
- Cases 1–30. No voice for that card or part of the card.
- Cases 31, 32. None.
- Case 33. Multimedia ports on that DSP will not be available (i.e., out of service).
- Cases 34, 35. None. These SEERs are only used for sanity checking the system.

Action:
- Cases 1–30. The following steps should be performed if any of the SEER messages listed are seen:
  - a Disable the Node.
  - b Run OOS diagnostic.
  - c If OOS diagnostic failed, replace the VP card.
  - d If OOS diagnostic is OK, but problem persists, replace the VP card.
  - e Enable the node.
  - f If the problem persists after replacing the VP card, contact your NT support organization.
- Case 31. If the problem persists, contact your Northern Telecom support, organization.
- Case 32. Ensure that the Network Loop Interface is securely installed onto the Voice Processor cards. If the problem persists, contact your Northern Telecomm support organization.
- Case 33. Contact your Northern Telecom support organization.
- Cases 34, 35. None.

NT:
- Cases 1–30. The following steps should be performed if any of the SEER messages listed are seen:

a For most of the cases follow the Administrator Action Plan.

b Check the Hardware Database DSP record to make sure the DSP load matches the actual hardware VP card:

DSP Load	Matching Card
NorAmer_16	16k
General_32	32k
MultiMedia	32k

c Check the dip switches on NVP card.

d Check the Network Loop Connector on both sides for GP, XCabinet, EC and Modular Option, and the front connector for the Card Option (Option 11) to ensure that they are securely connected.

e Use MD to check the DSP bin files.
The first 4 bytes for 16k DSP bin should be 8000 0001
The first 4 bytes for 32k DSP bin should be 8000 0002
The first 4 bytes for 64k DSP bin should be 8000 0003

Case 31. Contact the NT-TOR DSP group, to notify them of the problem.

Case 32. If the problem persists, contact the NT-TOR DSP group.

Case 33. Use MD_MA to correct the Hardware Database. In most cases, the DSP's Pkg Type should be changed to "MultiMedia". Reboot the system.

Cases 34, 35. None.

2674 Major Error

Cause: The error text reads 'PP: VP slot number missing.' This means that there is a load build failure.

Impact: No voice for that node.

Action: Do HwModify from release Tape.

NT:
a. Go to CI and modify the startlist.
b. Put the VP12 card slot number (7) for that node in the VOM_PP argument.
c. Disable and enable the node, if the error occurs again, reboot the node.

2675 Major Error

Cause: The error text reads 'PP: Failed to map VP Control Register.' This is due to a bad Voice Processor card.

Impact: No Voice for that Node.

Action:
a. Disable the node.
b. Replace the VP card.
c. OOS diagnostic the VP card.
d. Enable the VP card.

NT: None

2676 Major Error

Cause: A subtask has been completed/terminated.

Impact: The node will reboot and recover by itself.

Action: None

NT: None

2677 Admin Error

Case 1–3. Major

Case 4. Minor

Cases 5,6. Critical

Cause:
Case 1. PP: failed to open Hardware Database
Case 2. PP: search RSMnBus card in Hardware Database failed. Use default setting.
Case 3. PP: search DSP record in Hardware Database failed.
Case 4. PP: Close Hardware database failed.
Case 5. PP: Number of incorrect TN range channels = n, where n = number of channels with incorrect TN definition. The Shelf or Card definition on the switch TN for the Voice Channel is incorrectly defined.
Case 6. PP: Number of Voice Channel Loop Number and RSMnBus (J4,J5) setting mismatches = n, where n = number of channels failed to match the RSMnBUS (J4, J5) setting.
The switch TN loop number defined on the Voice port record in hardware database is not defined in any of the RSMnBus (J4 or J5) setting.

Impact:
Case 1. No voice for that node.
Case 2. No voice, if the voice port and switch TN setting is not matched with the default setting.

	Case 3.		No voice for that node.
	Case 4.		None.
	Cases 5,6.		Ring-connect-silence.
Action:	Case 1.		Refer to the return code. The return code is identified as rc=<number> in the error text. Contact your NT support organization.
	Case 2.		Refer to the return code. The return code is identified as rc=<number> in the error text. If 'Ring-connect-silence is heard', contact your Northern Telecom support organization.
	Case 3.		Refer to the return code. The return code is identified as rc=<number> in the error text. Contact your NT support organization.
	Case 4.		Refer to the return code. The return code is identified as rc=<number> in the error text. The problem is transient.
	Case 5.		Use the hardware modify in the TOOLS level to redefine out-of-range TNs. This also affects the switch side definition. The range of the shelf is 0 to 1, and the range of the card is 2 to 3.
	Case 6.		Use the hardware modify in the TOOLS level to correct the setting. Define the RSMnBus records' (J4 and J5) setting in accordance with the actual switch loop number connected to the connector.
NT:	Case 1.	a	Refer to the return code. The return code is identified as rc=<number> in the error text.
		b	Check the hardware database; if the hardware database has disappeared, try to copy the hwd.orig to hwd from MD or MD_MA.
		c	If both hwd and hwd.orig have disappeared, rebuild the system from tape, if necessary.
	Case 2.		Refer to the return code. If the return code is '3901' (no match), then use the MD_MA to recreate the record. One for each Utility Card. >> Type = RMSnBUS >> j4 = {switch loop number connected to J4 connector} >> j5 = {switch loop number connected to J5 connector}
	Case 3.	a	Refer to the return code. The return code is identified as rc=<number> in the error text.
		b	Check the hardware database.
		c	Copy the hwd.orig to hwd from MD or MD_MA.
		d	If both hwd and hwd.orig have disappeared, rebuild the system from tape, if necessary.

e Check the hardware database for DSP record. If there is no match, then rebuild the system from tape, if necessary.

Case 4. None. .

Case 5. If there is a failure in using the hardware modify, or the system crashes, boot to CI and use MD_DA to correct the TN setting.

Case 6. Use the hardware modify in the TOOLS level to correct the setting. Define the RSMnBus records J4 and J5 setting in accordance with the actual switch loop number connected to the connector.

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2699 Info Error

Cause: If the text of the message says “Warning: DSP file read time was more than 30 seconds, actual was *n* seconds,” the system is busy, for example, booting.

Impact: None

Action: None

NT: None

Class 27 Voice Base Service Shell (VSS)

Introduction

The Voice Base Service Shell (VSS) subsystem:

- starts up a voice service task
- initializes resources to set up a voice connection
- processes call-processing requests from voice service task and monitors the progress of the operation
- sets up and tears down a call connection that originates from or terminates on a voice channel
- buffers digits entered by the user
- collects the call duration for OM

Each voice channel has its own VSS.

If a VSS cannot be started, incoming calls to that VSS channel cannot be handled. This reduces the number of channels available on the system. If a VSS fails when it is running, a call session may be terminated.

A Class 27 SEER generally contains a lower level return code.

Reports

2702 Minor Error

Cause: VSS was requested to start a voice service with an invalid service ID.

Impact: The voice service cannot be started.

Action: Contact your NT support organization.

NT: This should never happen in a release tape. Check any other SEERs as they may indicate which component requested the service. Try reloading the system with a good release tape.

2703 Info Error

Cause: VSS was requested to start a voice service but the service was not loaded. This indicates that the release tape has problems.

Impact: The voice service cannot be started.

Action: Contact your NT support organization.

NT: Provide a valid package in the release tape.

2706 1.Minor Error 2.Info Debug

Cause: Case 1. VSS failed to start a voice service. In the text message, the extra integer is <Service Id>, an integer is the <return code> (lower level), string is <Calling DN> (the DN of the calling party), the other string is <Called DN> (the DN of the called party).

Case 2. If the text says "Failed to access NetDb in pSetStartData <return code>," this is a debug info SEER report, intended only for NT development use.

Impact: VSS will start up a voice menu service to play an error prompt to the user and then disconnect the call.

Action: Contact your NT support organization.

NT: Examine other SEERs to determine why the voice service cannot be started.

2707 Minor Error

Cause: A tasking error occurred when VSS wanted to communicate with other components.

Impact: Depends on the situation. The VSS may fail on only one operation.

Action: If the error persists, contact your NT support organization.

NT: From the SEER, find out which component caused the tasking error and determine the reason for the error. If the error persists, disable and enable the port.

2710 Minor Error

Cause: Too many digits were received and overflowed the buffer in the VSS. The overflowed digits were thrown away.

Impact: The voice service will not receive all the dialed digits, for example, incomplete passwords, commands, and so on.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: Examine other SEERs from the voice service, and determine why the digits are not consumed fast enough.

2711 Minor Error

Cause: Not enough memory for VSS to start up.

Impact:
1. If channel is already running, Meridian Mail will reload channel software automatically.
2. If it occurs during loading of channel software, then VSS will not run channel and voice channel cannot be used.

Action:
Case 1. No action.
Case 2. Contact your Northern Telecom support organization.

NT: Change the configuration by updating the Startlist file. Then, reboot the system.

2712 1. Minor Error 2.Info Debug

Cause:
Case 1. An error occurred when VSS was initializing data for a new call session (for example, the VSS failed to re-read the Organization profile).
Case 2. If the text says “Failed to access NetDb in ChangeNet <return code>,” this is a debug info SEER report, intended only for NT development use.

Impact: The service will not be started. The VSS will start up a voice menu service to play an error prompt to the user and then disconnect the call.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: From the SEER, find out what data VSS failed to read, and evaluate the cause.

2713 Minor Error

Cause: An error occurred in disconnecting a call.

Impact: The call will be disconnected. In some situation, the VSS will be restarted.

Action: From the text of the SEER, determine what the error is. If unclear, contact your Northern Telecom support organization.

NT: If the problem persists, contact your Northern Telecom support organization.

2715 Minor Error

Cause: An error occurred during the process of switching voice services.

Impact: The switching will not be done. The call will be disconnected.

Action: Contact your NT support organization.

NT: Evaluate what caused the failure. Look for related SEERs for the other voice service.

2716 1Minor Error 2.Info Debug

Cause: Case 1. An error occurred in initialization when the VSS was first started up.

Case 2. If the text says one of the following, they are debug info SEER reports, intended only for NT development use:

a. "Channel POOS, ignoring call (ShellState) <ShellState>."
b. "Parameter list is empty."
c. "Failed to read parameter (idx, ArgString): <Index> <ArgString>."
d. "Terminate Cmd received in VCM_RegisterDev <IPL Cmd>."

Impact: The VSS will not run. The voice channel for the VSS will not be usable.

Action: Contact your NT support organization.

NT: The SEER will indicate the area of initialization that failed and the lower level return code associated. Try to determine why the inidcated resource was not available based on the lower level return code.

2717 1. Minor Error 2.Info Error 3. Info Debug

Cause: Case 1. A time-out occurred in the VSS.

Case 2. If the text says one of the following, they are error info SEER reports, that require no action:

a. "Failed to open profiles after timeout (rc): <Return Code>."
b. "PostCall Processing timeout (ServId): <Service Id>."

Case 3. If the text says the following, it is a debug info SEER report, intended only for NT development use:

a. “Invalid state in TmOutHdlr (ShellState) <ShellState>.”

Cause: A time-out occurred in the VSS.

Impact: A call may be taken down, or a voice service may be taken down.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: Evaluate the traffic situation for the time when the time-out occurred. If the traffic was high, the switch may have been slow in processing requests from Meridian Mail (and vice-versa) causing a time-out.

2721 Minor Error

Cause: An error occurred in trying to shut down a voice service.

Impact: The voice service will be forced to shut down.

Action: None

NT: Analyze the surrounding SEERs to determine the reason for a shutdown.

2722 Info Debug

Cause: A time-out occurred when waiting for permission to access the buffer that stores digits, so some digits may be lost.

Action: If the error persists, disable and enable the port. If it still persists, contact your NT support organization.

NT: Analyze the surrounding SEERs to determine the problem.

2723 Minor Error

Cause: The VSS could not dial out because of failure to start a VPIO task.

Impact: The VSS will not be able to dial out from the voice channel.

Action: Verify that the data related to the voice operation is set up properly in the Organization profile and voice services profile. If the error persists, disable and enable the port.

NT: Take note of the return code of the SEER, and contact Northern Telecom’s support organization.

2731 Minor Error

Cause: The voice service task issued a call processing command in the wrong context.

Impact: Minor. The VSS will reject the request.

Action: None. If the error persists, contact your NT support organization.

NT: Analyze the surrounding SEERs to determine the problem.

2732 1. Minor Error 2. Info Debug

Cause: Case 1. Outside Voice Messaging debugging, the error is one of the miscellaneous errors in VSS, which is due to the reported system slowdown that messages from the switch are out of sync with the external state of VSS. A time-out occurs in the VSS.

Case 2. If your support organization has turned on Voice Messaging debugging, debug info SEER messages received are intended only for NT development use.

Impact: Case 1. If the SEER is caused by an error, the severity depends on the error encountered. The VSS will be restarted in the worst case.

Case 2. If the debugging flag has been turned on, the SEER merely indicates an incoming call to Meridian Mail.

Action: Case 1. Check the surrounding SEERs to determine the cause of the slowdown.

Case 2. Debug info SEER messages are intended only for NT development use.

NT: Case 1. If the SEER indicates an error, analyze the SEER by looking up the codes in the Appendix.

Case 2. Voice Messaging debug information is listed in the Appendix under the 2700 error codes. Analyze the SEER by looking up the codes in the Appendix.

2734 Minor Error

Cause: A call could not be answered because it was already answered.

Impact: The answer call request from the voice service task will be rejected.

Action: None

NT: Note the shell state at the end of the reported SEER. Also note the surrounding SEERs to determine the voice service that is trying to answer the call. Contact Northern Telecom's support organization.

2737 Minor Error

Cause: The VSS failed to send the outgoing call progress status to voice service task because of a tasking error.

Impact: The call will be disconnected.

Action: If the SEER persists, disable and enable the port.

NT: Analyze the surrounding SEERs to determine the problem. Evaluate what caused the failure.

2744 Info Error

Cause: The VSS failed to acquire a voice port.

Impact: During loading phase, channel may not be enabled.
During call processing, call may be rejected. (MSM only.)

Action: Check to ensure that the voice ports are enabled (MSM only). If they are not, enable them. If they are, contact your Northern Telecom support organization. For non–MSM systems, do not enable voice ports. Report directly to your Northern Telecom support organization.

NT: Look up the return code in the Appendix of this SEERs manual. Examine the surrounding SEERs, which may indicate a VCA or VPH problem. Disable and re-enable the voice channel.

2760 Info Error

Cause: The requested channel capability and/or type is greater than available to the incoming call.

Impact: The caller is routed to an error service that indicates a mismatch of channel capability and/or port type.

Action: Review the allocation of agents in the Channel allocation table (CAT) and ACD queues and their related services (FIS, FIM, VMU, and so on). Also review the use and allocation of channels for outcalling. Review the full and basic service needs. This problem indicates a mismatch of the requirements of the service defined and the channel acquired. For FIS, FIM, Voice menus and Time-of-day controller review the session profile in the VSDN table. If the allocation of channels is correct and the problem persists, contact your Northern Telecom support organization.

NT: Review the allocation of channels and ports. If the configuration matches NTP specifications, then look for other SEER reports related to the allocation of channels.

Class 28 Generic Telephony Interface (GTI)

Introduction

The Generic Telephony Interface (GTI) provides a procedural interface for Meridian Mail applications to gain access to call processing functions on different switches. The interface uses a universal set of commands. Call processing commands can be executed on voice channels or third party telephony devices.

GTI errors can prevent call processing commands from being executed.

A Class 28 SEER generally contains:

- lower level return code
- DN involved in the command

Reports

2801 Minor Error

Cause: A software communication failure has occurred between the VSS and either the VP Handler or it's agent task. Any one of the following text messages could appear:

- Failed to rendezvous with Handler in SendCmd (Cmd, TskRc) <Cmd> <Return Code> <Handler Task Id>.
- Failed to rendezvous with Handler in SendVACmd (Cmd, TskRc) <Cmd> <Return Code> <Handler Task Id>.
- Failed to rendezvous with VP Handler in SendDigit <Return Code> <VPH Task Id>.
- Failed to rendezvous with VP Handler in CPTD <Return Code> <VPH Task Id>.

- Failed to rendezvous with Agent in MkConn <Return Code> <Agent Task Id>.
- Failed to rendezvous with Agent in FrConn <Return Code> <Agent Task Id>.

<Cmd> is a GTI command codes. Refer to the list that follows:

GTI Command Codes

0 No command.
1 Log in application against a DN.
2 Originate a call.
3 Transfer a call.
4 Complete the conference.
5 Revert to the original call that was on hold.
6 Disconnect a call.
7 Answer a call.
8 Update message waiting indicator.
9 Send a digit to the VP handler.
10 Query device status.
11 Activate/de-activate a feature associated with a key.
12 MM agent device maintenance.
13 Log out application from a DN.
14 Turn on system alarm.
15 Activate/de-activate call progress tone detection.
16 Make speech path connection.
17 Free speech path connection.
18 ACD agent action request.
19 Release channel request.
20 Reserve channel request.
21 Query DN info request.
22 Query XLA Info request.
23 Call redirection request.

Impact: The requested call processing operation will fail.

Action: Contact your NT support organization.

NT: Determine the reason for the tasking error. Check the Startlist file to see if the proper link handler is included to be started.

2803 Info Debug

Cause: The application used bad parameters (for example, Nil task id) when calling GTI procedures. This error indicates that the release tape may have problems. The extra integer in the text message is the Meridian 1/SL-1 identifier. Other integers are lower level return codes. For MSM systems the extra integer is the SMDI ID number.

Impact: The requested operation will fail.

Action: Contact your Northern Telecom support organization.

NT: Check surrounding SEER to see if problem is caused by another component. Fix said problem. Otherwise, disable and then re-enable channel. Contact your NT support organization, if condition persists.

2804 Info Error

Cause: The user profile did not have the correct message waiting indicator (MWI) link id, or the message waiting indicator server task did not exist.

Impact: The message waiting indicator cannot be set properly, and hence will not be updated.

Action: Check the user profile. If this does not solve the problem, contact your Northern Telecom support organization.

NT: Make certain the user profile has the correct MWI link id. If this does not solve the problem, then check the Startlist file to ensure the link handler to be started is included.

Class 30 Administration Base (AD)

Introduction

The Administration Base (AD) is a layer of software which stores and retrieves the Organization Profile (customer and system) and Personal Profile files. It uses the file system and the Organization Directory (OrgDir or DR).

If the problem is with the reading or writing of a personal profile, only one user will be affected. If the problem involves the customer profile, operation for that particular customer will be affected. If the problem involves the system profile, operation of the entire system may be affected.

- CRITICAL: Should not continue.
- MAJOR: May continue. Results are not guaranteed.
- MINOR: May continue without adverse effect.

A Class 30 SEER generally contains:

- an indication of which AD operation failed
- a lower level return code

Most of the following codes are return codes rather than SEERs, however they are in this section of the manual because they are reported by other applications and their SEERs and may be used for debugging purposes.

Reports

3001 Minor Error

Cause: An error occurred obtaining the FID of a personal profile.

Impact: The personal profile cannot be accessed. Only one user will be affected.

Action: Try the operation again. Look up the lower level return code in its associated section of the SEER manual and take the action appropriate for that return code. If the problem persists you can re–add the user under a new mailbox number. Existing messages will not be available under the new mailbox. If the problem continues to occur, contact your NT support organization.

NT: Use AD_UTIL to attempt to read the affected personal profile. If the same error occurs, then the file might be corrupted. The user's cabinet and profile might need to be removed from the system which will cause all messages to be lost. Either use AD_UTIL to remove the user by invoking the DELUSER command, or do it manually. To do it manually (a last–resort procedure), delete the user from the OrgDir using MD_DR. Then delete the user's cabinet from the user volume using MD.

3002 Major Error

Cause: Number of bytes read is not as expected.

Impact: Major. There appears to be an inconsistency in the data requested by an application and the actual data returned to the application. If the problem is with a personal profile, only one user will be affected. If the problem involves the customer profile, operation for that particular customer will be affected. If the problem is with the system profile, then the operation of the entire system may be affected.

Action: Contact your Northern Telecom support organization and give the support personnel the name of the file and the particular record that caused this error to occur

NT: Use the utility MD to open the file and determine the size of the record that caused the error. Compare the size of the actual record with the size specified in the AdminBase Design document. If the two are the same, then there is a problem with the application that tried to access the file; this can only be fixed by a change to the source code. If the two are not the same, then the file has been corrupted. If the file in question is a personal profile, use either AD_UTIL or the MMI to delete the user and add him back in; any messages that the user had would be lost.

If the file in question is a customer profile, then extreme caution must be exercised in performing the following procedures:

1. record all special settings in the profile, such as the feature set, the selected Classes of Service, any special settings in the profile, etc.
2. Once that has been done, use the MD utility to remove the customer profile, and use the MD_DR utility to remove the customer's DR entry from the Organization Directory.
3. Now, use either AD_UTIL or the MMI to add the customer back onto the system.
4. Set the new profile to have the same content as the old one by using the list of recorded settings that was generated at the beginning of this procedure.

For the system profile, call your Northern Telecom Development organization for assistance.

3003 Major Error

Cause: An error occurred when an application tried to open a customer profile but did not specify a valid customer.

Impact: The operations that the application was attempting to perform on the intended customer profile cannot be performed, which may affect the entire customer group's users. The probable cause of this problem is programming error which can only be fixed by the Northern Telecom development organization.

Action: Note the SEER number that accompanies this return code and contact your NT support organization with this information.

NT: Contact your Northern Telecom development organization with the information provided by the customer.

3004 Major Error

Cause: An error occurred obtaining the file ID of a customer profile and that of the parent cabinet but did not specify a valid customer.

Impact: The operations that the application was attempting to perform on the intended customer profile cannot be performed, which may affect the entire customer group's users. The probable cause of this problem is a programming error, which can only be fixed by the Northern Telecom development organization.

Action: Note the SEER number that accompanies this return code and contact your NT support organization with this information.

NT: Contact your Northern Telecom development organization with the information provided by the customer.

3005 Major Error

Cause: The pointers to profile(s) have not been set up properly.

Impact: The operations that the application was attempting to perform on the intended profile(s) cannot be performed, which may affect a single user, a customer group, or the entire system, depending on whether the application was trying to access the personal, customer, or system profiles. The probable cause of this problem is programming error, which can only be fixed by your Northern Telecom development organization.

Action: Note the SEER number that accompanies this return code, as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information.

NT: Contact your Northern Telecom development organization for support. Give them the information passed along by the customer.

3006 Major Error

Cause: Could not update the system profile with the information in the system record file.

Impact: If this problem occurs after initial installation, conversion, or upgrade/expansion then the system profile will not reflect the installation of any new features, languages, or switches.

Action: Contact your NT support organization and report the problem. Report any SEERs.

NT: First verify that the system record file has not been removed. If the file is there, then use the second return code to determine the error. Look up the return code in the appropriate section of the SEER manual to determine what steps to take next. If the second return code is the same as the first code (i.e. they are both 3006), this signifies either the system record file has not been set up properly or that the system environment was not correct at the time of the system profile update. In both cases, contact your Northern Telecom development organization and inform them of the SEER message and return code.

3007 Minor Error

Cause: The personal profile to be added already exist on the system.

Impact: This should cause no major problems as the personal profile already exist, so any further operation on the profile should be successful.

Action: See if the user can be located through the MMI via the Local User Find screen. If yes, then look at the profile to see that it contains all the data that should be in there. If not, modify it until it contains the right data. If the user cannot be found, then contact your Northern Telecom support organization to inform them of the problem.

NT: If the user cannot be found in the Local User Find screen, yet the profile exists, then use the MD utility to remove the user profile and the corresponding cabinet from the system. Note that when the user profile and cabinet are removed, all messages are lost. Add the user back into the system using the MMI.

3008 Minor Error

Cause: The customer profile to be added already exists on the system.

Impact: This should cause no major problems as the customer profile already exist, so any further operation on the profile should be successful.

Action: See if the customer can be located through the MMI via the Customer Administration Find screen. If yes, then look at the profile to see that it contains all the data that should be in there. If not, modify it until it contains the right data. If the customer cannot be found, then contact your Northern Telecom support organization to inform them of the problem.

NT: If the customer cannot be found in the Customer Administration Find screen, yet the profile exists, then use the MD utility to remove the customer profile from the system. Add the customer back into the system using the MMI. Now invoke AD_UTIL to ensure that the customer count field is accurate. Once the AD_UTIL window is up, go to that window and enter OPMOD. When prompted for the type of access, enter System_Only. Modify the Admin record. One of the field deals with the number of customers defined on the system. Make sure the value in that field corresponds to the number of customer profiles on the system. If the value is incorrect, change it to the right value. (To find out how many customer there are on the system, use MD to go to /1/cust and list the directory content. Count the number of customer profiles there are and correlate that with the value in the system profile.)

3009 Major Error

Cause: This error occurs when an application tries to read from a personal profile specifying a user class other than the Personal Class but failed to supply a pointer to the file that contains the desired class of service record.

Impact: The immediate impact is that the intended operation cannot be performed. However, this does not mean other application cannot read records from the personal profile in question. The problem lies with the first application only.

Action: Note the SEER number that accompanies this return code, as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information. The intended operation cannot be performed while the user belongs to a class other than the Personal Class. Change the user to the Personal Class and try again. However, note that changing the user to the Personal Class does not guarantee the operation would succeed; it just gives it a better chance of succeeding.

NT: Contact your Northern Telecom development organization and inform them of the SEER message and return code.

3010 Minor Error

Cause: This error occurs when an application tries to read from a personal profile and supplied an invalid class of service number. Please note that this does not mean a wrong number, but an invalid number, i.e. a number that could not possibly be a class of service number.

Impact: The immediate impact is that the intended operation cannot be performed, but it only affects a single personal profile.

Action: Most likely the problem lies with faulty data setup. Using the MMI, change the user's COS assignment to put the right value into the user's COS field. Try the operation again. If the operation fails again, note the SEER that accompanies this return code as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information.

NT: Contact your Northern Telecom development organization and inform them of the SEER message and return code.

3020 Major. Error

Cause: Unable to retrieve a class of service record from the specified organization profile. This can occur when an application tries to read the COS record or when an application tries to read the personal profile of a user that belongs to a class other than the Personal Class.

Impact: If the problem lies with the application, then only the intended operation will fail. However, if the class of service record had been accidentally deleted, then all users who belong to the deleted class will be affected.

Action: If the problem occurs when trying to access the class of service record by itself, or when trying to read a user profile, then the error is probably with the software. However, verify that the class of service record does exist. This can be done through the MMI. If the record is there, then there is a problem with the application that was trying to read the COS record or the personal profile. Note the SEER number that accompanies this return code, as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information. If the record is not there, then try adding it back into the system via the MMI.

NT: Contact your Northern Telecom development organization and inform them of the SEER message and return code.

3021 Major Error

Cause: Unable to update a class of service record from the specified organization profile. This can occur when an application tries to update the COS record.

Impact: If the problem lies with the application, then only the intended operation will fail. However, if the class of service record had been accidentally deleted, then all users who belong to the deleted class will be affected.

Action: This error is probably with the software. However, verify that the class of service record for that user does exist. This can be done through the MMI. If the record is there, then there is a problem with the application that was trying to read the personal profile. Note the SEER number that accompanies this return code, as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information. If the record is not there, then try adding it back into the system via the MMI.

NT: Contact your Northern Telecom development organization and inform them of the SEER message and return code.

3022 Major Error

Cause: Unable to locate the COS offset record, which means the entire COS data structure in the specified organization profile is now corrupted.

Impact: All previously defined COS records will now be inaccessible.

Action: Contact your Northern Telecom support organization and inform them of the situation.

NT: Use the MD utility to open the organization profile that contains the corrupted COS records. Through MD, delete all records of the type 'User COS'. Use the MD_DR

utility, delete all DR entries of the COS records that were just deleted. With the help of the system administrator, add all the COS records back into the profile via the MMI.

3023 Major Error

Cause: The retrieved class of service record from the specified organization profile is not of the right length. This can occur when an application tries to read the COS record or when an application tries to read the personal profile of a user that belongs to a class other than the Personal Class.

Impact: This usually occurs when the specified COS record is corrupted, hence all users who belong to that class will be affected.

Action: Contact your Northern Telecom support organization and inform them of the situation.

NT: Use the MD utility to open the organization profile that contains the corrupted COS record. Through MD, delete the corrupted COS records. Use the MD_DR utility, delete the associated DR entry of the COS record that was just deleted. With the help of the system administrator, add the COS record back into the profile via the MMI.

3024 Minor Info

Cause: Unable to delete a specified COS record either because no such record exists, or because there are users who are still assigned to it.

Impact: This return code informs the system administrator that he tried to perform an invalid operation. It simply means that he cannot delete the specified COS record because the conditions are not right for it to be deleted.

Action: If the COS record exists, and the administrator really wishes to delete it, then first un–assign all users who currently belong to this class before attempting the deletion again. If the COS record does not exist, then consider the deletion a success.

NT: None

3025 Minor Error

Cause: An application tried to add another customer to the system when the system had been defined as a single customer system.

Impact: The second customer cannot be defined, since the system is suppose to be a single customer system.

Action: None, since no new customers was suppose to be added in the first place.

NT: None

3026 Minor Error

Cause: An application tried to add a defined customer to the system.

Impact: The request to add an existing customer was probably an error in the first place, so this prevented an error condition on the system.

Action: None, since the same customer is not supposed to be added twice in the first place.

NT: None

3027 Minor Error

Cause: An application had specified an invalid record when it attempted to add a component record that has COS fields in it.

Impact: The operations that the application was attempting to perform affects only personal profiles, which means only individual users are affected. The probable cause of this problem is programming error, which can only be fixed by the Northern Telecom development organization.

Action: Note the SEER number that accompanies this return code, as the application that encountered this return code should generate a SEER. Contact your Northern Telecom support organization and give them the information.

NT: Contact your Northern Telecom development organization for support; give them the information passed along by the customer.

3030 Critical to minor. Error

Cause: Unable to install the language records in the system profile.

Impact: The language records in the system profile is needed for the modification of both the customer and personal profiles. Without them, voice messaging would not know how to use that particular language to communicate with a user. If this error occurs during initial installation, then the error is Critical. If it occurs during upgrades or feature expansion and the second return code is something other than this value, then the error is Major. If the second return code is the same as this code, then it is a Minor error caused by the number of records in the system profile being greater than the number of languages specified in the system record file. Since there are already more records than specified by the system record file, the impact should be minimal.

Action: This error only occurs after initial installation, upgrade, or feature expansion. Try it again. If it fails again, contact your NT support organization.

NT: Notify the development organization.

3031 Major Error

Cause: Unable to install the switch records in the system profile

Impact: The switch records that were not installed would affect the voice channels that are connected to those switches. Without the records, the system would not know how to communicate with those switches, thus rendering those voice channels useless. The voice channels that are connected to switches whose records are in the system profile would not be affected.

Action: This error only occurs after initial installation, upgrade, or feature expansion. Try it again. If it fails again, contact your NT support organization.

NT: Look up the second return code for source of the problem. If still unable to solve the problem, contact your Northern Telecom development organization.

3032 Minor Error

Cause: Unable to install the font record in the system profile.

Impact: The font record is not used by any application in the system; it is there strictly to inform the system administrator which fonts are installed on the system. Therefore, the only impact would be the system administrator not knowing which fonts are available for use. However, if the root cause of the problem is the absence of the data files, then those missing data files would affect the entire fax feature.

Action: This error only occurs after initial installation, upgrade, or feature expansion. Look at the second return code and then look it up in the SEER document to determine the root cause of the problem and what actions to take. If the second return code is also 3032, then it means either the data in the font data file is not valid or that there are more fonts on the system then there should be. In this case, contact your Northern Telecom support organization.

NT: The problem is probably due to an incorrect installation, upgrade, or feature-expansion tape. Use another tape and try it again. If it still fails, contact your Northern Telecom development organization.

3051 Minor Error

Cause: An error occurred accessing the Organization Directory (DR).

Impact: Operation of the Organization Directory fails. This error only occurs when invoking AD_UTIL (a utility), so it should have minimal impact on the system.

Action: Look up the lower level return code in its associated section of the SEER manual. Take action appropriate for that return code or contact your NT support organization.

NT: Use MD_DR to investigate any problems with the Organization Directory. If unable to open the Organization Directory, call the Northern Telecom development organization and inform them of the situation. If opening of the Org. Directory was successful, then there is a problem with AD_UTIL. File a PR against AD_UTIL.

3070 Major . Error

Cause: A major error caused the conversion process to abort

Impact: This occurs during conversion of profiles from one release to the next. If conversion fails then the affected profiles will not be consistent for the new release.

Action: Contact your Northern Telecom support organization. Report any SEERs.

NT: Examine the conversion log file listing and identify which profiles failed in the conversation. Use the reported SEERs to determine the next step to take.

3071 Minor Error

Cause: Minor error occurred during the conversion process however, none were serious enough to cause the conversion to abort

Impact: Minor. This occurs during conversion of profiles from one release to the next. Usually this return code is encountered when there are some things in the profile that the conversion program cannot decide on and requires the administrator to do manually: a warning would have been logged in the log file.

Action: Examine the log file and identify which profiles need manual intervention. Go through those profiles and make the necessary changes.

NT: Make sure all the things that caused the warnings to be logged have been changed manually.

Class 31 Directory Server (DR)

Introduction

The Directory Server:

- provides an Organization Directory which includes names, phone numbers, personal verifications for people and services in the organization (users and non-users) and system distribution lists
- provides a User Directory
- provides a system database storing voice services and VSDN entries

The Directory subsystem has two parts:

- a server (DR_SERVER) that caches a directory index and performs all directory updates
- client software to support a user's access to the directory

Directory server failures may lead to:

- inability of users to log on
- problems with users' accounts
- inability to update the directory
- problems with certain voice services

A Class 31 SEER generally contains:

- lower level return code
- name of a file, such as the secondary index file
- location of the error and time when the error was detected. For example: dr435 disp:34001 vers:88 means that a problem was detected in version 88 of file /1/dr/dr/dr435 at displacement 34001 bytes.

Reports

3105 Minor Error

Cause: Error starting Directory Server. The server could not allocate sufficient memory for its cache or working memory because of memory fragmentation, a change in system configuration or new directory entries taking up space.

Impact: If the cache could not be allocated, no directory operations will work and no users will be able to log on. If the working memory could not be allocated, you may be able to perform all operations except directory updates (including administration operations and the recording by users of personal verification names).

Action: Disable MSP1. When MSP1 is out of service, re-enable it to eliminate memory fragmentation. If the error persists, contact your NT support organization.

NT: Change the system configuration to make more memory available to the DR_SERVER.

3106 Minor Error

Impact: Same as SEER 05.

Cause: DR_Server could not allocate enough memory. See SEER 05.

Action: Same as SEER 05.

NT: Same as SEER 05.

3107 Minor Error

Cause: The Directory Server could not allocate enough memory to run the update agent.

Impact: It will not be possible to update the directory.

Action: Same as SEER 05.

NT: Same as SEER 05.

3116 Minor Error

Cause: The Directory Server found a Filesystem error while accessing the directory file. The message may indicate an error during the Directory Server audit and the presence of duplicate entries.

Impact: Depends on the return code. Some entries may not be retrieved by their retrieval keys. Duplicate entries may be retrieved by some retrieval keys if the SEER text says “DUPS MAY EXIST”. Secondary index files may be corrupted and some users may be inaccessible.

Action: Look up the return code in Appendix A and try the indicated action. If the error occurred during a Directory Server audit, see if it recurs the next time the audit is run. The “DUPS MAY EXIST” message indicates that the problem caused the Directory Server audit to create duplicate entries. These may be repaired automatically as the directory is updated and audited. If necessary (or to play it safe), restore from a consistent backup or recreate the directory.

NT: Use Dump and Reload procedure (DRFIX_PKG) described in the MD_DR user guide.

3117 Minor Error

Cause: Bad Secondary Index File. The primary index is inconsistent with the secondary index files.

Impact: Some entries may not be retrieved.

Action: The problem may be fixed by the nightly DR audit. If not, restore VS1 from backup.

NT: Run MD_DR. Type DRCONTROL AUDIT to rebuild the primary index.

3118 Minor Error

Cause: The directory update task was unable to obtain the entry to update using the pull mechanism.

Impact: The directory update will fail. The specific failure will depend on the type of operation attempted. For example, a user may not have been added or changed, a class of service may not have been added or changed, class of service administration may fail, a new spoken name may not be added for a user, etc.

Action: Retry the operation. If not known, the operation can be determined by matching this SEER (3118) with another SEER that reports 3118 as a return code. If the remote node or invoking task is alive and receives the error, then the client will report the error with 3118 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

NT: This SEER indicates a possible problem with the bus interconnecting the nodes, the sanity of a remote node or internode connection. Check SEERs for problems with nodes or internode communication.

The SEER contains a task result and a hex dump of the remote task id. Usually the task result will be adequate to determine why the pull failed. The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the physical node and the last eight are the task id on that node.

If no matching SEERs can be found, then there could be a bus inter-connection problem, or a problem with a remote node. Contact your NT support organization.

3119 Minor Error

Cause: The directory server was unable to return directory operational measurements to an application by using the push mechanism.

Impact: The application will not receive operational measurements from the directory. In general, this will not effect service since directory OMs are maintained for informational purposes only.

Action: Retry the operation. If not known, the operation can be determined by matching this SEER (3119) with another SEER that reports 3119 as a return code. If the remote node or invoking task is alive and receives the error, then the client will report the error with 3119 as part of its SEER. The severity of the problem will be based on the severity of the operation of the client.

NT: This SEER indicates a possible problem with the bus interconnecting the nodes, the samity of a remote node, or internode communicaiton. Check SEERs for problems with nodes or internode communications.

If the SEER contains a task result and a hex dump of the remote pointer. Usually the task result will be adequate to determine why the push failed. The hex dump contains additional information which is sometimes useful; the first eight characters of the hex dump are the virtual address for the push, the next four characters are the locale, and the last eight characters are the physical node. If no matching SEERs can be found, then there could be a bus inter-connection problem or a problem with a remote node. Contact your Northern Telecom support organization.

3122 Minor Error

Cause: Internal Software Consistency Failure.

Impact: Some Directory Server update operations may not work.

Action: Contact your NT support organization immediately. *DO NOT* update the directory, add users, services, system distribution list, etc.!

NT: Restore or recreate the directory. The directory can be restored by running MD_DR, loading DRFIX_PKG, and using DRDUMPDIR and DRRELOADDIR as described in the MD_DR user guide. If you suspect a conversion problem, restore all volumes from backup and try the conversion again.

3123 Minor Error

Cause: The directory entry is inconsistent with the available keyboard language modules. This SEER may indicate a corrupt directory.

Impact: Some Directory Server update operations may not work.

Action: Contact your Northern Telecom support organization.

NT: Restore or recreate the directory, or change system configuration so that language modules loaded match those which were loaded the last time the directory was updated.

3124 Minor Error

Cause: Directory entry indexed under unknown key type. May be caused by a corrupted directory file or software that was incorrectly converted from a previous release.

Impact: Same as SEER 23.

Action: Contact your Northern Telecom support organization.

NT: Restore or recreate the directory. The directory can be restored by running MD_DR, loading DRFIX_PKG, and using DRDUMPDIR and DRRELOADDIR as described in the MD_DR user guide. If you suspect a conversion problem, restore all volumes from backup and try the conversion again.

3126 Minor Error

Cause: Entry without ClientID. This SEER may indicate a corrupt directory.

Impact: One or more entries may not be accessed.

Action: Same as SEER 3124.

NT: Same as SEER 3124.

3127 Minor Error

Cause: Inserting Key Out of Order—internal consistency error. This SEER may indicate a corrupt directory.

Impact: Some update operations may not work.

Action: Same as SEER 3124.

NT: Same as SEER 3124.

3130 Minor Error

Cause: The application software is not using the Directory Server properly.

Impact: The application operation will not work.

Action: Contact your NT support organization.

NT: Obtain complete SEER using SE_PKG. This will give the program address and locale. Determine the problem from the locale. Then notify the development organization of program error.

3131 Minor Error

Cause: An Application is not providing enough memory for directory access.

Impact: The application will not be able to access the directory.

Action: Disable and re-enable the node issuing the SEER.

NT: Obtain complete SEER using SE_PKG. This will give the program address and locale. Determine the problem from the locale. Then notify the development organization of program error.

3132 Minor Error

Cause: The application is trying to use an invalid DRCB. Usually, this is because of a previous Directory Server error; if so, you may ignore this error.

Impact: Subsequent Directory Server accesses by the application software in this session will not work. If another DR SEER precedes this one, investigate it and ignore this SEER.

Action: Investigate previous Directory Server error. If there was none, contact your NT support organization.

NT: Obtain complete SEER using SE_PKG. This will give the program address and locale. Determine the problem from the locale. Then notify Northern Telecom's development organization (NT-TOR) of the program error.

3134 Minor Error

Cause:
1. Directory Server unavailable. The SEER message may include a return code. If the SEER came from the server, this code indicates a reason for server termination. If the SEER came from the client, this code details a communication problem (taskresult) between client and server.
2. If the text says "***DR_SERVER ERROR***", an error occurred while starting up the Directory Server. The server will terminate with an exception and should restart automatically.

3. If the text says “DR Error”, the client software could not communicate with the Directory Server. The SEER also includes the task result from the failed communication. Usually this means that the Directory Server is not running.
4. If the text says “New System ID allocated: nnn”, then a new system ID has been generated to allow unique clientIDs to be created. Occurs normally when systems are installed. (Severity level = System Info.)
5. If the text says “***DR ERROR GETTING LOCAL SITEID***”, then the DR_Server could not get the local site ID from the network data base but will start up anyway. Addressing may be affected.
6. If the text says “DR ERROR READING dr0 FILE, TRYING dr00”, then the DR_Server could not read its primary index file and will try its backup copy /1/dr/dr/dr00.
7. If the text says “DR ERROR READING dr00 FILE, TRYING DUMMY”, then the backup copy of the primary index file was also bad. An audit will be performed to recreate it.
8. If the text says “***DR SERVER COULD NOT START***”, then the DR_Server could not get its primary index file. It kills itself and will be automatically restarted. (Severity level = Error Critical)
9. If the text says “DR CONTROL FAILURE”, then an attempt to perform a control operation on the DR_Server failed for the reason given. The return code will be a task result encountered by the client trying to communicate with the DR_Server.

Impact: Unless the server recovers, no directory accesses will work. See SEER 01.

Action: Look up the return code in Appendix A. If the problem persists, contact your Northern Telecom support organization.

NT: Look up the return code, if it is provided. Use PRM_CONTROL to restart the Directory Server or reboot the system.

3135 Minor Error

Cause: The Update Agent was unavailable in the DR_Server. The SEER occurs normally as part of night-time Directory Server audit. At any other time, this SEER may indicate a more serious problem. Sometimes a return code is provided. This code gives a reason for server termination or details a communication problem between the client and server.

1. If the text says “***DR LANGUAGE TABLE REMOVED***”, an attempt was made to start the Directory Server with fewer language modules. Updates are disabled to prevent directory corruption.

2. If the text says “DR Audit Begun: []”, a Directory Server Audit has been started to re-balance the directory. Updates will be disabled until the audit is complete. The audit parameters (if any) are displayed between the square brackets. (Severity level = System info.)
3. If the text says “DR Audit Done, n passes”, the Directory Server Audit finished after the indicated number of passes through the secondary index files. Updates should now be re-enabled. If the directory is still not completely re-balanced, the SEER will include “n OFlows” giving the number of secondary index files which are still larger than optimum size. If the audit was stopped because it took longer than the audit time limit, the SEER will include “TIME”. (Severity level = System info.)
4. If the text says “***DR Entry Duplication Possible***”, the Directory Server Audit stopped in such a way that might have resulted in duplicate entries being created in the directory.
5. If the text says “DR Update Agent—class:n EXCEPTION,type:m”, a runtime error occurred in a Directory Server task. The SEER may instead indicate an exception in the Cache Mgr or Auditor tasks. If n=4, then m is a file system or Directory Server return code, otherwise it identifies the runtime error detected by the operating system. The Directory Server will try to recover by restarting the failed task.
6. If the text says “***error starting DR audit”, the Directory Server Audit could not be started due to the error given as the return code.
7. If the text says “***DR update agent save error”, the update agent could not save the server state for the reason given as the return code.
8. If the text says “***could not start DR update agent”, the Directory Server update agent could not be started for the reason given in the return code. No directory updates will be possible until the problem is corrected.
9. If the text says “***DR Audit—***” “n DUP ENTRIES NOT SPILLED BACK” (or FWD) indicates that the auditor found duplicate entries in the directory and eliminated n of them.
10. If the text says “DR Error” indicates that the client software had a problem communicating with the update agent task in the Directory Server. The task result is given as the return code. This error can result from trying to perform an update while updates are disabled or during a Directory Server audit.
11. If the text says “Error reading /1/dr/updates/log, try spare newlog”, then the DR_Server encountered an error reading its log file and is trying to read the backup log file.

12. If the text says “Error copying /1/dr/updates/newlog”, then the backup log file was bad too. The extra return code isolates the cause.
13. If the text says “DR Retried aborted xxxx”, where xxxx is “addEntry”, “delEntry”, “chgEntry”, “addMember”, or “delMember”, then the DR_Server has retried an update operation which was in progress when the system died. The surname of the directory entry may also be given. If the result code is zero, the retry was successful (Severity level = System info.). Otherwise the retry failed (Severity level = Error Minor).

The return code isolates the cause.

Impact: The directory may not be updated (including the recording of personal verification names) until the update agent becomes available again. This SEER is normal during the night-time. If this SEER occurs at other times, there may be a serious problem.

Action: Look up the return code. Find out if an audit is actually running. If so, wait for it to complete. If not, contact your Northern Telecom support organization.

NT:

Case 1.	Check the installation of the software.
Case 2–3.	(result 0)—Normal; no action.
Case 4.	This is a minor corruption with no expected user impact. It should fix itself over time; if not, dump and reload the directory.
Case 5.	Look up the exception in Appendix A. If the problem persists, reboot. If necessary, dump and reload.
Case 6–8.	Look up the return code. Try rebooting. If the problem persists, dump and reload the directory.
Case 9.	This is a minor corruption with no expected user impact. It should fix itself over time; if not, dump and reload the directory.
Case 10.	This problem is normal if DR Audit was running, Use “Md_dr” to check and change the server state.
Case 11.	Look up return code. This problem should recover itself.
Case 12.	Dump and reload.
Case 13.	(result 0)—Normal; no action.

3138 Minor Error

Cause: Secondary index file not found. May indicate corrupted directory.

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3139 Minor Error

Cause: Secondary Index File Too Short (readKeyBlock).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3140 Minor Error

Cause: Missing Secondary Index File (open1stFile).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3142 Minor Error

Cause: Bad Secondary Index File—Entry Length Bad (unPackAttr).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3143 Minor Error

Cause: Bad Secondary Index File—Bad Packed Entry (scUnPack).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3144 Minor Error

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3145 Minor Error

Cause: Bad Secondary Index File—Entry Too Short (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3146 Minor Error

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3147 Minor Error

Cause: Bad Secondary Index File—Entry Too Big (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3148 Minor Error

Cause: Bad Secondary Index File—File Too Short (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3149 Minor Error

Cause: Bad Secondary Index File—Bad Entry Format (unPackFilter).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3150 Minor Error

Cause: Bad Secondary Index File—Missing List End (skipList).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3151 Minor Error

Cause: Bad Secondary Index File—Wrong List End (skipList).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3152 Minor Error

Cause: Bad Secondary Index File—No List End (expandMembers).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3153 Minor Error

Cause: Bad Secondary Index File—File Too Short (nextRef).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3154 Minor Error

Cause: Bad Secondary Index File—File Too Short (dr_References).

Impact: Some directory operations will not work.

Action: See SEER 16.

NT: See SEER 16.

3159 Minor Error

Cause: Consistency Error—Couldn't make key (processPattern).

Impact: Unpredictable.

Action: Contact your NT support organization.

NT: Obtain complete SEER using SE_PKG. This will give the program address and locale. Determine the problem from the locale. Then notify Northern Telecom's development organization (NT-TOR) of the program error.

3160 Minor Error

Cause: Consistency Error—Couldn't make key (processPattern).

Impact: Unpredictable.

Action: Contact your NT support organization.

NT: Obtain complete SEER using SE_PKG. This will give the program address and locale. Determine the problem from the locale. Then notify Northern Telecom's development organization (NT-TOR) of the program error.

3164 Minor Error

Cause: A retrieval operation failed. Sometimes, this error occurs if an entry was improperly added to the directory. For example, initials were improperly included in the given name or surname fields or a generational qualifier, such as Jr. or Sr., was improperly included in the surname.

Impact: A consistency check of the directory found an entry which cannot be retrieved by all its keys. If the return code is 1, 2, 3, or 4, and the entry is a user, that user may be unable to log on. Otherwise, the only inconvenience may be that the entry is not visible in some administrator retrievals.

Action: Try deleting the entry and adding it again or changing the entry.

NT: If reasonable entry changes do not correct the problem, contact Northern Telecom's development organization (NT-TOR).

3166 Minor Error

Cause: Error Checking a Directory Entry—Missing Reference. A consistency check that was run on the directory found an entry with inconsistent links to other entries (for example, contacts, manager or list membership). The SEER text includes the surname and clientID of the entry and a return code indicating which retrieval operation failed.

Impact: Further updates or retrievals on this entry or those related to it may not work.

Action: Restore from a consistent backup tape.

NT: Delete and re-add the entry using MD_DR. If the problem persists, restore the directory from a consistent backup tape or dump and reload the directory.

3167 Minor Error

Cause: A consistency check was performed and it was discovered that two copies of the same entry were indexed under the same key. The SEER includes a return code indicates which retrieval operation failed.

Impact: The entry may be retrieved twice when certain retrievals are done.

Action: Change the entry to itself, for example, perform a directory update on this entry but do not actually change any field values. If the problem persists, restore the directory from tape.

NT: Dump or reload the directory.

3168 Minor Error

Cause: Error Checking a Directory Entry—Entry not in list. The SEER includes a return code indicating which retrieval operation failed.

Impact: A single entry is shown to be in a list when in fact it is not. Attempts to change or add the entry may fail.

Action: Delete and re-add the entry. You must also add the name to any system distribution lists again. If the problem persists, restore the directory from tape.

NT: Dump or reload the directory.

3171 Minor System

Cause: This SEER number is used by the on-line DR reload software in DRFIX_PKG to report status. This SEER is generated by one of the two commands DRONLINERELOAD or DRSWITCHDIR for the following reasons:

1. start of on-line directory reload, from DRONLINERELOAD
2. end of on-line directory reload, from DRONLINERELOAD
3. after directories are successfully switched, for DRSWITCHDIR
4. failure with on-line directory reload, from DRONLINERELOAD
5. after errors adding entries to second directory, from DRONLINERELOAD
6. failure switching directories, from DRSWITCHDIR

Impact: Cases 1–3 SEERs report status in normal operation.

Case 4. Some problem setting up the second directory. Normal system operation will not be affected, but the reload will fail. The return code and screen text will indicate the cause of the problem.

	Case 5.	Entries from the original directory are not propagated to the second directory. This could mean a user/voice service/system distribution list is lost.
	Case 6.	If the severity is minor, the problem switching directories occurred before the directories were actually switched, so the original directory is still in place. If the severity is major, then the directory switch failed in an intermediate state and the new directory may be partially installed. The screen text and return code will indicate the cause of the problem.
Action:	Cases 1–3.	No action is required in normal operation.
	Case 4.	The second directory may not be set up due to insufficient disk space on VS1, insufficient memory on node 1 or other system errors. If disk space is insufficient, then free up the disk space required (the amount needed is indicated on the screen text) or run the offline directory dump and reload, DRDUMPDIR and DRRELOADDIR. If memory on node 1 is insufficient, disabling the channels on node 1 may help, or run the utility on a node other than node 1.
	Case 5.	Retry DRONLINERELOAD and answer no to the prompt asking to continue using the previous directory. If the failure repeats, identify the fix cause based on the return code.
NT:	Case 1–3.	No action required.
	Case 4.	Other system errors would have to be solved according to the return code and system text. Refer to the on-line reload documentation in *System Administrator Tools*, NTP 555-7001-305, to determine how to manually correct the problem.
	Case 5.	Repeated directory corruption SEERs with numbers in the range 3138-3154 could indicate problems with the hard disk. If this is suspected replace the disk on node 1 and restore from backup. If the problem persists, contact the development organization.
	Case 6.	If the problem is at a file system level (class 10, 11 or 12 return codes), then refer to this NTP to understand the directory structure and manually correct the problem.

Class 32 Message Transfer Agent (MTA)

Introduction

The Message Transfer Agent (MTA) accepts voice mail from users and the Network Message Transfer Agent (NMTA) and delivers mail to the addressed recipients and the NMTA.

The MTA receives an argument string containing the number of delivery tasks required and a list of volume numbers. An MTA can transfer mail for several volumes. Each volume has an MTA cabinet which stores messages for delivery. The cabinet is: /<volume number>/mt. A volume is always associated with the same MTA.

Failure of an MTA will block mail submission for all users on the MTA's volumes.

A Class 32 SEER may contain:

- File ID
- Client ID
- Mailbox number
- Directory number
- Site number; if networking is not enabled, the site number is "0"
- Lower level return code
- Task result

If a SEER shows a Client ID rather than a user's mailbox number and you wish to identify the user, follow these steps:

1 Run utility MD_DR.

2 Enter "heap 100".

3 Enter "dropen".

4 Enter "drsimpf CID" <Client ID>.

Reports

3209 Minor Error

Cause: An exception occurred in a delivery task.

Impact: The affected delivery task will be restarted if possible. A message may not be delivered due to the failure and if so an NDN will be generated.

Action: Contact your NT support organization if this happens repeatedly.

NT: If this problem persists, contact the Northern Telecom development organization.

3210 Minor Error

Cause: Low level system error, or broadcast messages are delivered in phases.

Impact: A message or some broadcast messages will be delivered late.

Action: None. If the problem is chronic, contact your NT support organization.

NT: Use MD_MT (MTDUMPMSG) to get information about the late message in the recipient's cabinet and call the Meridian Mail support group.

3212 Minor Error

Cause: Low level system error.

Impact: Some messages might not be delivered.

Action: Look up the return code for more information. If necessary, contact your Northern Telecom support organization.

NT: Ensure that the customer profile is accessible.

3213 Major Error

Cause: Fails to access user profile.

Impact: One or more users cannot receive messages.

Action: Contact your NT support organization.

NT: Ensure that the volume has been started up. If the user profile is corrupted delete the user and create the user again.

3220 Minor Error

Cause: Low level system error.

Impact: Users will not be notified on their “other” phones or pagers about a message that has arrived in their mailbox.

Action: None. If the problem is chronic, contact your NT support organization.

NT: Contact the Meridian Mail support group.

3260 Minor Error

Causes: One of the following Non-Delivery Notification (NDN) errors:

1. The disk volume is full.
2. The heap space is insufficient.
3. The disk is not operational.

The return code will isolate the cause.

Impact: The NDN message will be lost.

Action: Inform the sender (whose mailbox number is provided in SEER) of loss of the message.

Case 1. Call administrator to remove messages.

Case 2. Contact your NT support organization.

Case 3. Check other SEERs for more information.

NT: Follow the action described for the return code. If necessary, contact the Northern Telecom development organization.

3261 Minor Error

Cause: Error in reading recipient addresses in the message.

Impact: One or more recipients will not receive the message. NDNs will be sent back to the sender for messages not delivered.

Action: Monitor the frequency of this SEER. If it persists, contact your NT support organization.

NT: Follow the action described for the return code. If necessary, contact the Northern Telecom development organization.

3268 Minor Error

Cause: Copy table is not large enough to handle all recipients.

Impact: One or more recipients will not receive the message.

Action: Contact your NT support organization to rebuild the MTA with a larger copy table by compiling source code.

NT: Contact the Northern Telecom development organization.

3269 Minor Error

Cause: The list expansion table is not large enough to handle all list members.

Impact: Recipients in one or more lists specified in the message will not receive the message.

Action: Contact your NT support organization to rebuild the MTA with a larger list expansion table by recompiling the source code.

NT: Contact the Northern Telecom development organization.

3272 Minor Error

Cause: A problem in delivering messages.

1. If the text says: “Cab Not accessible”, MTA could not gain access to the cabinet.
2. If the text says: “PP”, MTA could not gain access to the Personal Profile.
3. If the text says: “Cp to Vol”, a volume could not be copied.
4. If the text says: “Close on Vol”, a volume could not be closed.
5. If the text says: “Dup Sup Er”, a duplicate message could not be suppressed.
6. If the text says: “Add file fails”, a file could not be added to a volume.
7. A distribution list could not be expanded.

The problem may result from corrupted file system data. The return code will isolate the cause.

Impact: Some users will not receive their messages.

Action: Check the return code for further information and contact your NT support organization.

NT: Follow the action described for the return code. If necessary, contact the Northern Telecom development organization (NT-TOR).

3273 Major Error

Cause: File system error most likely caused by corrupt cabinet.

Impact: Users of the volume will not be able to send messages and may also lose messages.

Action: Contact your NT support organization.

NT: Rename the corrupt cabinet (using the movepath command in MD). Set up a new cabinet using the mkcab command, for example, mkcab /2/mt +custom. Restore messages in the bad cabinet.

3274 Minor Error

Cause: Notification failed because of a General Telephony Interface (GTI) or Voice Channel Allocator (VCA) error. The return code will isolate the cause.

Impact: If error occurred during a VM session, a recipient will not be notified of the new message. If MWI is mentioned in the SEER, the user's message waiting indicator may not be set properly.

Action: Contact your NT support organization.

NT: Follow the action described for GTI, VCA error. If necessary, notify the Northern Telecom development organization.

3275 Minor Error

Cause: Delivery task crashed and cannot be restarted. This will only occur after an Exception (3209) and indicates that the delivery task was not currently working on a message when the error occurred.

Impact: Message delivery efficiency will be reduced because there is one less delivery task.

Action: Contact your NT support organization.

NT: If necessary, contact the Northern Telecom development organization.

3276 Minor Error

Cause: Volume ID appears more than once in the MTA argument list. In other words, more than one MTA has been assigned the same volume.

Impact: Some heap memory will be used up because the MTA sets aside heap for each volume.

Action: Contact your NT support organization.

NT: Fix the MTA argument list in the STARTLIST so that all volumes appear and none are duplicated. See the release notes for reference.

3278 Major Error

Cause: Error occurred in VA (deferred delivery queue).

Impact: The MTA will try to rebuild the deferred delivery queue. During the rebuild, the MTA will not accept mail.

Action: Contact your NT support organization.

NT: Check the return code to isolate the cause of the problem. If necessary, contact the Northern Telecom development organization.

3279 Major Error

Cause: Error occurred in accessing the organization directory.

Impact: The delivery task will shut down and MTA will try to restart it.

Action: Check the return code in the aqppendix to this manual for more information. Examine surrounding SEERs, which may indicate a DR problem. If the source of the problem is not apparent, contact your NT support organization.

NT: Follow the action described for the return code. If necessary, contact the Northern Telecom development organization (NT-TOR).

3281 Major Error

Cause: Error in file handling or cabinet operation, which is indicative of an unstable file system. The return code will isolate the cause.

Impact: Other errors are likely to occur.

Action: Check the return code in the Appendix of this manual for more information. Examine surrounding SEERs, which may indicate the problem. If the source of the problem is not apparent, contact your NT support organization.

NT: Follow the action described for the return code. If necessary, contact Northern Telecom's development organization (NT-TOR).

3282 Critical Error

Cause: User profile is not consistent with organization directory.

Impact: One user cannot send messages.

Action: Check the return code in the Appendix of this manual for more information. Examine the surrounding SEERs, which may indicate the problem. If the source of the problem is not apparent, contact your NT support organization.

NT: Follow the action described for the return code. If necessary, contact Northern Telecom's development organization (NT-TOR).

3285 Major Error

Cause: 1. No delivery tasks are specified.

3. No volumes are specified.

4. More than twenty volumes are specified.
5. Invalid characters are in the argument list.

Impact: MTA will not run.

Action: Contact your NT support organization.

NT: Update the STARTLIST (particularly the MT entry) according to the release notes.

3286 Critical Error

Cause: MTA cannot allocate memory on the node.

Impact: MTA will not run.

Action: Contact your NT support organization.

NT: The system is not configured correctly, or there is an engineering design problem. Ensure that the STARTLIST is correct.

3287 Critical Error

Cause: MTA cannot register with the name server.

Impact: The MTA will not run.

Action: Contact your NT support organization

NT: Contact the Northern Telecom development organization (NT-TOR).

3288 Critical Error

Cause: Delivery task shut down and cannot be restarted. This will only occur after an Exception (3209) and indicates that the delivery task was not currently working on a message when the error occurred.

Impact: MTA will shut down.

Action: Contact your NT support organization to have them restart the MTA.

NT: Kill the MTA using the debugger. The MTA will restart automatically.

3289 Critical Error

Cause: The MTA failed to start.

1. If the text says “Int DT: TR : <Taskresult>”, a delivery task failed to start.
2. If the text says “OrgProf:RC”, organization profile access failed.
3. Volumes may already have been registered.

The task result or return code will isolate the cause.

Impact: MTA will shut down.

Action: Contact your NT support organization.

NT: Ensure that system volume is online, organization profile is not corrupt, MTA argument string is correct, and no other MTA is using the same volumes. Restart MTA.

3290 Critical Error

Cause: Failed to rebuild the deferred message queue.

Impact: None

Action: None. Normally the MTA program will be restarted automatically. If you cannot send messages, contact Northern Telecom's support organization to restart the MTA program.

NT: Kill the MTA program using debugger. The MTA will restart automatically.

Class 33 Operational Measurements (OM)

Introduction

OM is a multi-server of the Program Resource Manager. The OM collects data, calculates statistics and reports on Voice Messaging (VM) and MISA Volume Servers (VS) traffic, and channel and service usage from Voice Channel Allocator (VCA).

The administrator uses the MMI to schedule traffic reports for VM and VS. The MMI is also used to enable and disable data collection and the capability of generating reports.

The OM:

- tracks the schedule
- collects traffic data from VM, VS, VCA
- stores traffic data as per schedule if enabled
- stores VM session data if enabled
- starts the user usage data collector at night

OM errors have a minor impact on the system, since OM is a self-contained subsystem and it shuts down properly in the event of a serious error.

A Class 33 SEER usually contains a lower level return code, which is a disk data interface (class 10) return code.

Reports

3311 Minor Error

Cause: Tasking Error. Failure to communicate with the OM Server.

Impact: OM options will not be updated.

Action: If error persists, contact your NT support organization.

NT: Restart the OM Server using PRM_CONTROL.

3312 Minor Error

Cause: OM Server is not running due to failure to locate the OM Server.

Impact: OM options will not be saved, or one billing record will be lost.

Action: If error persists, contact your NT support organization.

NT: Restart the OM Server using PRM_CONTROL.

3317 Minor Error

Cause: Error occurred while storing the OM data. If the text indicates failure to commit the data to disk, the current data will be lost. If the text indicates failure to open the cabinets, data will not be written to disk. Otherwise, the OM recovers by writing to a new file. The return code isolates the cause.

Impact: The OM data to be stored during the failure is lost.

Action: Look up the return code for specific information. If the error persists, contact your NT support organization.

NT: Verify that there are OM cabinets on the System Volume Server. Restart the server using PRM_CONTROL.

3321 Minor Error

Cause: Error in deleting old traffic, billing, or usage files.

Impact; None

Action: None. If this SEER persists over several days, contact your NT support organization.

NT: Audit VS volume 1. Restart OM Server. Old files should be deleted the next time the specified OM file is updated.

3331 Minor Error

Cause: Could not access the system profile. The return code isolates the cause.

Impact: OM Server will not collect any data until restarted.

Action: Look up the MISA return code for specific information.

NT: Check the system profile using AD_UTIL. Ensure OM options are set up, then restart OM_SERVER using PRM_CONTROL.

3332 Minor Error

Cause: Failure in polling server. The return code isolates the cause. The problem may be that

- Data could not be collected due to disabling of option
- Server for given feature is not running
- Traffic data files could not be obtained

Impact: OM data for the request service will not be collected.

Action: Look up the return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: Check that all appropriate programs for the specified service are in the STARTLIST. Ensure that the programs are running.

3333 Minor Error

Cause: Failure to write OM data to disk. The return code isolates the cause.

Impact: OM data will be lost for the specified interval.

Action: Look up the return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: Ensure that all OM cabinets are available on the system volume server. Restart the OM_SERVER using PRM_CONTROL.

3338 Minor Error

Cause: Failure to register the OM server.

Impact: OM Server will not start.

Action: Contact your NT support organization.

NT: Verify the status of the name server and restart the OM server using PRM_CONTROL.

3341 Minor Error

Cause: PRM failed to start OM_COLLECT.

Impact: User usage data will not be collected for the previous day.

Action: Contact your NT support organization.

NT: Check for OM_Collect in STARTLIST. Ensure the MMI does not have an overlay loaded so that the system will have enough memory to run the OM.

3360 Minor System

Cause: Information SEER on the status of the OM_COLLECT program.

Impact: None.

Action: Depends on SEER text. If SEER indicates that OM_COLLECT was not started, then take action according to problem as recorded in SEER text. If unclear, contact your Northern Telecom support organization.

NT: Take appropriate action according to SEER text.

3362 Minor Error

Causes:
1. Could not open, read, update, or close the organization profile
2. Store Record Failure
3. Unable to get amount of voice space used
4. Could not close save file
5. Could not get org profile FID
6. Could not open cabinet
7. Unable to get billing class
8. Processing error
9. Unable to initialize

The return code isolates the cause.

Impact: Could not create user usage reports from billing information.

Action: Look up the DD return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: Ensure that all OM cabinets are available on the system volume server. Restart the OM_SERVER using PRM_CONTROL.

3366 For information only System

Cause: Information SEER on the status of the OM_SERVER program.

Impact: None

Action: None

NT: None

3367 Minor Error

Causes: 1 Error occurred in OM audit.

2 No memory to start OM server.

Impact: Case 1 OM audit will not clean up old data.

Case 2 OM server will not start.

Action: Case 1 SEER text will indicate what types of files were not deleted. Examples: vmbillfile, nmbillfile, trafficfile. If the problem persists for several days, contact your NT support organization.

Case 2 Contact your NT support organization

NT: Case 1 Disable OM traffic collection. Use om_util and md to delete old traffic files. Restart OM_SERVER using PRM_PKG. RE-enable OM traffic collection.

Case 2 Check system memory.

3369 Minor Error

Causes:
1. DD_read failed
2. Find/get record failed
3. Unable to find record
4. Unable to close last file from cabinet
5. GETFID failed
6. Open cabinet failed

The return code isolates the cause.

Impact: Problem with reading traffic or billing file. Data cannot be retrieved.

Action: Look up the return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: Ensure that all OM cabinets are available on the system volume server. Restart the OM_SERVER using PRM_CONTROL.

3375 Minor Error

Cause: Error in adding the billing or traffic records.

Impact: OM data will not be committed to disk. File may be corrupted.

Action: None

NT: Ensure that all OM cabinets are available on the system volume server. Restart the OM_SERVER using PRM_CONTROL.

3391 Minor Error

Cause: Failed to locate OM_SERVER.

Impact: The OM billing record will not be sent to the OM_SERVER.

Action: Contact your Northern Telecom support organization.

NT: Make sure that the system time is set and check to see if the OM_SERVER is in the debugger. Restart server using PRM_CONTROL. If the SEER persists, contact Northern Telecom development.

3393 Minor Error

Cause: Failed to locate OM_SERVER.

Impact: The OM billing record will not be sent to the OM Server.

Action: None. If the SEER persists, contact your NT support organization.

NT: Restart OM Server using PRM–Control.

3394 Minor Error

Cause: Failure to download OM data to PC.

Impact: OM data will not be available for PC processing.

Action: Restart MCONSOLE program on the PC and retry command. If it still fails, check link status and baud rate and retry command. If it still fails, contact your NT support organization.

NT: Ensure that TC and TKM are in the STARTLIST and are running. Check to ensure that the AdminPlus port is set up correctly in the hardware database. Make sure that the correct PC software is loaded on the PC.

Class 34 Voice Channel Allocator (VCA)

Introduction

The Voice Channel Allocator (VCA) is responsible for allocating system resources such a Telephony Channels, DSP ports, and Time slots.

VCA Seer printouts are frequently accompanied with VCA Control Blocks. Each the control block contains the HWLOC of the affected device.

Reports

3420 Minor Error

Cause: An internal error occurred (for example, tasking) causing an outcall to be delayed.

Impact: The outcall will immediately retry.

Action: None

NT: None

3440 Minor Error

Cause: Sanity check on an internal table failed.

Impact: None. The internal table will be rebuilt.

Action: None

NT: None

3441 Minor Error

Cause: VSS tried to release a resource it did not own.

Impact: Request ignored by VCA.

Action: Disable and re-enable port/channel specified in SEER.

NT: Same as action

3442 Minor Error

Cause: The VCA Control Block passed in by the client was invalid.

Impact: Request ignored by VCA.

Action: Disable and re-enable port/channel specified in SEER.

NT: Analyze other SEERs for more information. If problem persists, contact Northern Telecom's development organization.

3443 Minor Error

Cause: Internal Sanity check failed.

Impact: None

Action: Disable and re-enable ports/channels specified in SEER.

NT: None

3445 Info System Information

Cause: VCA has finished recovering after a restart/recovery.

Impact: None

Action: None

NT: None

3446 Minor Error

Cause: A timeout has occurred during VCA/VCM recovery.

Impact: None

Action: None

NT: Ensure that all channels recover automatically. If not, disable and re-enable the affected channels.

3447 Minor Error

Cause: Variable out of range.

Impact: Request ignored by VCA.

Action: None

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

3452 Minor Debug

Cause: An outcall selected a port that was already in use.

Impact: None. It will retry operation.

Action: None

NT: Too many of these can indicate that the system is overloaded or under-engineered.

3455 Critical Error

Cause: Could not read the hardware database at startup.

Impact: System will not function.

Action: Contact you Northern Telecom support organization.

NT:
- Determine if /1/hardware database is available,
- Confirm that VS1 (volume server 1) is running,
- Check the class 39 return code,
- Restart the VCM via PRM control,
- As a last resort reboot the system.

3461 Critical Error

Cause: There was no memory at startup for the VCA.

Impact: System will not function.

Action: Contact your Northern Telecom support organization.

NT: Examine memory usage. If there are too many channels on the primary node disable some. Restart the VCM via PRM control. As a last resort reboot system.

3464 Minor Error

Cause: A tasking error occurred. This may occur at startup, when the system is very busy or during system recovery.

Impact: Minimal

Action: Wait and disable and re-enable ports if necessary.

NT: Check surrounding SEERs for results of the tasking error. Recover any devices that are affected.

3465 Minor Error

Cause: Bad parameter passed in by client.

Impact: Request ignored.

Action: Disable and re-enable port/channel.

NT: There are three circumstances where this SEER occurs:

1. A Voice Service Task passed in an invalid parameter to UserUpdate.
2. A private NT utility has passed in a bad parameter.
3. The MMI_Server has passed a bad parameter into GetStatus.

Analyze the other SEERs for more information. If the problem persists contact the NT development organization.

3466 Minor Error

Cause: An unexpected event occurred.

Impact: Indeterminate.

Action: Disable and re-enable ports/channels if necessary.

NT: Analyze surrounding SEERs. If the problem persists, contact Northern Telecom's development organization.

3471 Minor Error

Cause: A device was in an incorrect state for the requested operation.

Impact: Minimal.

Action: Disable and re-enable port/channel if it does not recover by itself.

NT: Same as action

3475 Critical Error

Cause: There was no memory at startup for the VCA or there was some other initialization problem.

Impact: System will not Function.

Action: Contact your Northern Telecom support organization.

NT: Examine memory usage and system configuration. If there are too many channels on the primary node disable some. Restart the VCM via PRM control. As a last resort reboot system.

3480 Minor Error

Cause: During a sanity check, an idle VSS was found to own an incorrect number of ports.

Impact: VSS is restarted.

Action: None

NT: None. If the problem occurs frequently, contact Northern Telecom's development organization (NT-TOR).

3481 Minor Error

Cause: Could not find port in internal table to release.

Impact: None.

Action: Disable and re-enable the affected T1 channel.

NT: Same as Action.

3488 Minor Error

Cause: Problem cleaning up dying program.

Impact: none.

Action: Disable and re-enable the channel.

NT: None

3490 Minor Error

Cause: Internal Sanity Check failed.

Impact: None

Action: Disable and re-enable ports/channels if necessary..

NT: If the problem persists, contact Northern Telecom's development organization.

3494 Minor Error

Cause: Unexpected device acquiring a timeslot.

Impact: None.

Action: Contact your Northern Telecom support organization.

NT: Use VCM_PKG to print timeslot map. ‘VCAPRT TS YES’.

3495 Minor Error

Cause: Failed to PUSH OM or status PUSH to MMI.

Impact: Lose OM or status for period.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact your Northern Telecom development organization.

3497 Minor Error

Cause: Error occurred during recovery.

Impact: Indeterminate

Action: Disable and re-enable ports/channels if necessary.

NT: Should only happen under system recovering under load. Internal VCA tables could be corrupted. Best to disable and re-enable affected channels. If that fails, disable and re-enable all ports.

3499 Minor Debug

Cause: An unexpected event occurred.

Impact: Indeterminate

Action: Disable and re-enable ports/channels if necessary.

NT: Analyze surrounding SEERs, and contact Northern Telecom’s development organization.

Class 35 SEER Server (SS)

Introduction

The SEER server collects and reports System Event and Error Reports (SEERs).

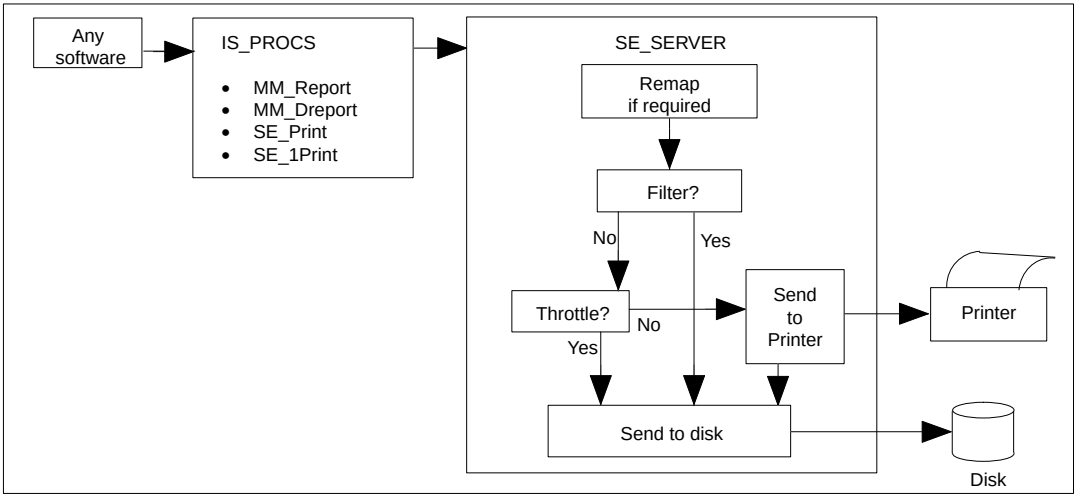
These reports are:

- Stored in the SEER file which resides on the System Disk
- Printed on the SEER printer (could be a dedicated printer or hanging off the system's console terminal).

When any software requires a SEER to be generated, it calls one of the SEER interface procedures (MM_Report, MM_DReport, SE_Print, SE_1Print) with the appropriate data. Figure 35-1 shows the SEER generation process.

Note 1: The capacity exists to enable and disable SEER filing to disk and SEER printing on the printer.

Figure 35-1
SEER Generation



Note 2: Do not backup SEER files in the '/1/SEER' directory. This directory should only contain the 'SEER' file. Backups can be placed in the '/1' directory.

Reports

3500 Info System

Cause: General SEER server information, such as:

1 A new SEER file is being created.

2 An automatic reset of the SEER server has occurred.

3 The SEER messenger has been restarted.

4 SEER throttling has started, is in progress, or has ended.

Impact: No impact on the system

Action: None

NT: None

3501 Info System

Cause: SEER file is not found in cabinet.

Impact: SEER file will be automatically recreated.

Action: None

NT: None

3502 Major Error

Cause: File system error.

Impact: SEERs may no longer be filed on disk.

Action: Contact your NT support organization.

NT: Backup (see Note 2 in the introduction to this class) then delete the current SEER file, then use SE_PKG to kill the SEER server. Also make sure that write-to-disk feature is enabled.

3503 Minor Error

Cause: An error occurred during the indexing of a SEER.

Impact: May indicate a file system problem.

Action: Contact your NT support organization.

NT: Backup (see Note 2 in the introduction to this class) then delete the current SEER file, then use SE_PKG to kill the SEER server. Also make sure that write-to-disk feature is enabled.

3504 Minor Error

Cause: A record could not be found and read.

Impact: May indicate a file system problem.

Action: Contact your NT support organization.

NT: Backup (see Note 2 in the introduction to this class) then delete the current SEER file, then use SE_PKG to kill the SEER server. Also make sure that write-to-disk feature is enabled

3506 Minor Error

Cause: The administrator has specified an invalid date (one that is older than the oldest or more current than the newest SEER on record).

Impact: Operation is not auccessful

Action: Check and correct the date input. Re-issue the command.

NT: Same as action

3508 Minor Error

Cause: No seer records were found in the specified time interval.

Impact: None

Action: Check specified time interval input.

NT: Same as action

3509 Major Error

Cause: Difficulty communicating with the SEER server, probably due to lack of memory buffers.

Impact: Some SEERs may be lost.

Action: If the error persists, try to identify, by looking at the last set of SEERs printed, which component could be generating a lot of SEERs, and try to resolve that problem. If the problem persists, contact your NT support organization.

NT: A software engineering problem—the Design Group should check if the SEER buffer size should be increased in future software releases.

3510 Major Error

Cause: Tasking error encountered.

Impact: Some SEERs may be lost.

Action: If the error persists, contact your NT support organization.

NT: Use SE_PKG to kill the SEER server.

3511 Minor Error

Cause: Inability to restart the SEER messenger. A file system problem is indicated.

Impact: SEER server crash.

Action: Contact your NT support organization.

NT: Backup (see Note 2 in the introduction to this class) then delete the current SEER file, then use SE_PKG to kill the SEER server. Also make sure that write-to-disk feature is enabled.

3512 Minor Error

Cause: This message is issued when the administrator tries to View or Print SEERs through the MMI. A file system problem is indicated.

Impact: Operation not successful.

Action: Contact your NT support organization.

NT: Backup (see Note 2 in the introduction to this class) then delete the current SEER file, then use SE_PKG to kill the SEER server. Also make sure that write-to-disk feature is enabled.

3513 Minor Error

Cause: Tasking error encountered, probably due to incorrect database or hardware.

Impact: Alarms may not correctly reflect problems on the system.

Action: Contact your NT support organization.

NT: Check Bus controller unit and/or existence of COCLKAL.CODE unit in OSP.PD.TEXT.

3514 Minor Error

Cause: Redundant SEER server can locate the active SEER server, but cannot kill it.

Impact: The redundant SEER server will be re-started.

Action: If SEERs are not being generated, then contact your NT support organization.

NT: Use the SE_Pkg to kill the SEER server (enter SE_START followed by SE_KILL). Kill the active SEER server followed by the redundant server.

Class 36 Network Message Transfer Agent (NMTA)

Introduction

The Network Message Transfer Agent (NMTA) transfers messages between Meridian Mail sites. Outbound messages are received from the Message Transfer Agent (MTA) and sent using the Analog Transfer Agent (ATA) or the Open Access Transfer Agent (OTA). Inbound messages from the ATA and OTA are delivered to the MTA. The NMTA initiates and manages the connections to remote and AMIS sites, and provides network traffic statistics and billing information.

Each network site has one NMTA. The NMTA stores messages in a cabinet (/<volume>/network) before delivering them. The volume number is passed to the NMTA as an argument in the STARTLIST. If the cabinet is not present it may be created using “MKCAB /<vol>/network +custom” from the CLI utility.

NMTA is a critical program. If the NMTA program (NM) fails to recover from serious error and shuts down, the Program Resource Manager restarts it immediately so that networking traffic is not blocked. NMTA errors can prevent connection to another site or cause messages to be lost.

A Class 36 SEER may contain:

- File ID
- Client ID
- Mailbox number
- Directory number
- Site number; if networking is not enabled, site number is “0”
- Lower level return code
- Task result

Reports

3604 Major Error

Cause:
1. The NMTA has insufficient memory for a new remote site.
2. The NMTA has insufficient memory for a networking port.

Impact:
Case 1. Users will not be able to send messages to the new site.
Case 2. The new networking port cannot be used.

Action: The maximum number of sites allowed depends on the combination of sites, locations, steering codes and dialing translation entries. See the Networking Services Administration Guide, NTP 555-7001-335, for a table giving limits. If you need to add a new site, other configured data has to be removed (for example, an existing site must be deleted).

The maximum number of networking ports supported in the system is 20. Verify that the entries in the hardware database are correct. If you need to add a new port, you'll have to remove an old port first. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3605 Critical Error

Cause: The return code isolates the cause.

1. If the text says "Cannot open message cabinet" or "out of room for message", there is a cabinet problem.
2. If the test says "Cannot NEWPOOL TempBuf" or "Cannot ADDPOOL to MYID" or "Cannot ADDPOOL to Buffer", there is a buffer pool problem.
3. If the text says "fails to open Org profile" or "read fails to read CM org record" or "Close fails to close Org. Profile", there is a problem gaining access to the Organization Profile.
4. If the text says "ReadNetDB: Fails to open the Network database" or "ReadNetDB: Fails to get the local site networking information" or "ReadNetDB: fails to identify the remote sites in the system", there is a problem using the network database.

5. If the text says “cannot open hardware database” or “fail to do hd_search” or “fail to do hd_initSearch”, there is a problem gaining access to the hardware database.
6. If the text says “# of remote sites exceeds NM capacity” or “NMTA cannot rebuild queues”, there is insufficient memory for the internal database.
7. If the text says “Cannot register NMTA”, there was a problem registering NMTA with the name server.
8. The Startlist argument might be invalid.
9. If the text says “Fails to get the local site networking status”, then usually the network database has not been configured or it has been re-initialized.
10. If the text says “Networking service disable”, then NMTA failed to read the networking status flag and it assumes the flag is set to disable.

Impact: NMTA will not run and networking will not be possible.

Action: Wait for the program to restart automatically. If it does not restart, contact your NT support organization.

NT: Perform the following steps:

a. Verify the argument string for NM in the STARTLIST and ensure that the specified network message cabinet exists.
b. Verify that the volume server is running. Use AD_UTIL or AD_TOOLS to list the directory on which the organization profile resides. If the volume is not accessible, run the VSMP program to start the volume server.
c. Verify that the system volume is up and that the hardware database resides on that volume.
d. Verify that the system volume is up and that the network database resides on that volume.
e. Run the network administrator program to configure the local site maintenance parameters.

If the above are in order, and problems still occur, save the cabinet message and then remove and recreate the network message cabinet using the command “MKCAB /<vol>/network ” but save the cabinet messages first.

3607 Major Error

Cause:
1. Bad connection problem
2. Tasking problem
3. Modem problem

4. Problem setting up call
5. Problem transferring voice
6. Problem with local NMTA
7. Problem with file in delivery
8. Miscellaneous problem
9. Protocol problem

Impact: The current connection or connection attempt has been stopped. The site originating the call will attempt another connection within the next five minutes.

Action: Perform the following steps:

a. Verify that the trunk connection is not busy and the remote site is operational.

b. Verify that the dialing connection to the remote site as entered in the network database is correct.

c. Verify that the modems are operational and correctly set.

d. Verify that the dialing numbers of the modems as entered in the hardware administration screens are correct.

e. If the problem persists, contact your Northern Telecom support organization.

If a message file problem arises, a NDN will automatically be generated after three delivery attempts.

NT: If NDNs are continuously generated, contact the Northern Telecom development organization (NT-TOR).

3608 Minor Error

Cause:

1. If the text says: “ERROR state for remote site <site ID>”, the remote site entered error state because a number of consecutive connection attempts to that site failed (default number is 3).
2. If the text says: “Remote site <site ID> has exited from error state”, a site returned to normal from the error state when a successful connection with the remote site was made.

Impact: While a site is in the error state, no connection attempts will be made for one hour. Messages may still be composed to the site, but they will not be delivered during this time.

Action: Investigate reason for connection failure. The error state can be cleared by using the “Clear Error” function in the network administration program. If no action is taken, the connection will be tried again after an hour. If this is successful, the error state

will be cleared. If the problem persists, contact your Northern Telecom support organization.

NT: If the site cannot clear the error state, contact the Northern Telecom development organization (NT–TOR).

3609 Minor Error

Cause: There is no networking port.

Impact: Network voice transfer is not possible.

Action: Check the data port configuration to see if NWMODEM entries are correct. If there is a problem, contact your NT support organization.

NT: If the problem cannot be resolved, contact the Northern Telecom development organization (NT–TOR).

3610 Major Error

Cause: NMTA encounters initialization problems. The return code isolates the cause.

Impact: NMTA will shut down and will restart automatically.

Action: Look up the return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT-TOR).

3611 Info Admin

Cause: The network prot DN was changed.

Impact: Network voice transfer will now occur via the new DN.

Action: None.

NT: None.

3621 Major Error

Cause: NMTA has problems gaining access to the message cabinet. The message cabinet may not exist or the volume server may not be running. Check the return code.

Impact: Inbound messages cannot be delivered to the message cabinet for the local user.

Action: Contact your NT support organization.

NT: Ensure that VS1 is running. If not, use VSMUP to start up the volume server. Verify that the message cabinet exists. If not, create the cabinet using the command

"MKCAB /<vol>/network" where <vol> is the volume specified in the NM argument in the STARTLIST.

3622 Major Error

Cause: MTA cannot accept a message from the NMTA.

Impact: Inbound messages will not be delivered to local users immediately. NMTA will try delivery again until the message stale-dates.

Action: Contact your NT support organization.

NT: If the MTA is not running, start it. Run the VSMUP program to verify that the volume server is running.

3623 Major Error

Cause: OM cannot accept a billing record. The OM may not be running.

Impact: Billing record for that message will be lost.

Action: If problems persist, contact your NT support organization.

NT: Ensure that the OM_SERVER is in the STARTLIST.

3625 Major Error

Cause: NMTA failed to communicate with the voice channel allocator (VCA).

Impact: Network voice transfer may not be possible.

Action: If problems persist, contact your NT support organization.

NT: Check that the VCA task is running. If not start it. If the VCA task was running, look up the return code to isolate the cause of the problem.

3626 Critical Error

Cause: NMTA internal database inconsistency.

Impact: NMTA will shut down and will restart automatically.

Action: Check if the network is still operational. If necessary, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3627 Major Error

Cause: The NMTA failed to open the network database. The volume server may not be running. Check the return code.

Impact: NMTA will do a warm restart and continue.

Action: Contact your NT support organization.

NT: Ensure that the server for the volume on which the network database resides is active by using a CLI utility to list the volume directory. If this fails, start up the volume server using the VSMUP program.

3631 Minor Error

Cause: The local site does not have enough ports to handle incoming calls.

Impact: Incoming calls will be rejected.

Action: If error persists, add networking ports. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3632 Major Error

Cause: The remote site is not defined in the network database.

Impact: NMTA will do a warm restart to pick up the latest view of the network database.

Action: Ensure that the remote site is entered in the network database. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3633 Major Error

Cause: NMTA cannot generate or send an NDN. The return code isolates the cause.

Impact: NDN message as well as the original message will be removed.

Action: If problems persist, contact your NT support organization.

NT: Verify that the MTA is running. If necessary, check that the network message cabinet volume is in the system.

3634 Major Error

Cause:
1. If the text says “exceeded bad message retry limit”, a message was unsuccessfully sent so many times that it will not be sent again.
2. The NMTA cannot retrieve or store a message in the /1/network cabinet.

The return code isolates the cause.

Impact: The message will be dropped from the system.

Action: Look up the return code for more information. Contact your NT support organization.

NT: Check the capacity of the network cabinet. Maximum capacity is 1500 messages. All message file names should be either “netfir” or “netfir1”.

3640 Major Error

Cause:
1. Wrong release number received from remote site (ID is provided).
2. Information for initiating site (ID is provided) could not be found.

Impact: Connection cannot be established with the remote site.

Action: Add the remote site to the network database. If the problem persists, contact your Northern Telecom support organization.

NT: If the remote site cannot be added, contact the Northern Telecom development organization (NT–TOR).

3641 Major Error

Cause: NMTA received an invalid password from a remote site.

Impact: The connection will be unsuccessful. If the local site is the initiating site, the entry for the remote site will be tagged as in the error state.

Action: Call the administrator of the remote site to coordinate passwords. If the problem persists, call your Northern Telecom support organization.

NT: If the problem persists while using the valid password, contact the Northern Telecom development organization (NT–TOR).

3643 Major Error

Cause: The remote site is using a different software release.

Impact: The connection will be unsuccessful. If the local site is the initiating site, the entry for the remote site will be tagged as in the error state.

Action: Make sure that both sites are running the same software streams. Contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3644 Info Debug

Cause: OTA reports an unexpected request during transmission.

Impact: Outgoing AMIS messages will be either NDN or retried later.

Action: Check if the AMIS is still operational. If the problem occurs frequently, contact your Northern Telecom support organization.

NT: If the problem persists, contact Northern Telecom development.

3645 Major Error

Cause: The NMTA received an invalid site identifier from a remote site.

Impact: No connection will be established because the site is unidentified.

Action: Update the network database with the correct remote site information. Call the administrator of the remote site for the correct site identifier. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3651 Minor Error

Cause: The NMTA has run out of OTA control block.

Impact: The NMTA cannot deliver the incoming/outgoing AMIS messages temporarily.

Action: Contact your Northern Telecom support organization if the problem persists.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3652 Info Debug

Cause: OTA reports a particular session is disconnected. The reason is in the return code.

Impact: Incoming/outgoing messages will be either retried later or NDN.

Action: Check if the AMIS is still operational. If necessary, contact your Northern Telecom support organization if the problem persists.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3653 Info Debug

Cause: The system access number used for the outgoing session is invalid.

Impact: Outgoing messages will be NDN.

Action: Check that the system access number used for AMIS call is valid. If necessary, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3654 Info Debug

Cause: There is no associated outgoing OTA control block.

Impact: The outgoing AMIS session is ignored.

Action: Check that AMIS is still operational. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3655 Info Debug

Cause: The outgoing AMIS session OTA control block is found not in use after the session has been started.

Impact: The current outgoing AMIS session is ignored.

Action: Check that the AMIS is still operational. If necessary, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

3657 Info System

Cause: NMTA cannot deliver the message to the remote site because the recipient's mailboxes are greater than 8 digits and the message is sent from an MM9 system to a pre–MM9 system (for example, MM8).

Impact: An NDN will be generated and sent to the sender. The message will be discarded.

Action: If the remote site is a pre–MM9 system, the maximum mailbox length for that remote site will be configured to be eight digits or less; otherwise, contact your Northern Telecom support organization.

NT: If the remote site is an MM9 system, contact the Northern Telecom development organization (NT–TOR).

3658 Info System

Cause: Case 1. Too few outcalling AMIS-A sessions are allowed.

Case 2. The number of ports assigned for networking is insufficient.

Case 3. Too few AMIS-A messages per session are allowed.

Impact: System performance will degrade and messages may potentially be NDN.

Action: Case 1. Increase the number of allowable outcalling AMIS-A sessions.

Case 2. Increase the number of ports allowable for AMIS-A.

Case 3. Increase the number of AMIS-A messages per session.

NT: Check if a billing DN is setup for the customer group. If not, the system is restricted to one message per session. Assign a dummy billing number to allow more messages.

3669 Info Debug

Cause: Program failed to get the cabinet counter.

Impact: None

NT: None

Class 37 Analog Transfer Agent (ATA)

The Analog Transfer Agent (ATA) sends network messages to other Meridian Mail sites.

There is one ATA for each connection to a given site. The Network Message Transfer Agent (NMTA) provides an ATA with several parameters including the directory number (DN) dialed to connect to the specified site, the particulars of the modem, and the messages to be sent.

ATA errors lead to connections being terminated. However, the transfer is tried again within five minutes. These errors have minor impact on the system.

A Class 37 SEER usually contains a return code, such as a DD, GTI, VH, or a VSS return code.

3702 Major Error

Cause: Cannot open the data port.

Impact: Failure of the networking session.

Action: Contact your Northern Telecom support organization for data port installation.

NT: Stop and restart the NMTA using the PRM_CONTROL program. If necessary, contact the Northern Telecom development organization.

3703 Critical Error

Cause: VSS failed to bind with ATA at start-up time.

Impact: Failure to send and receive networking messages.

Action: Courtesy disable and re-enable channels one by one.

NT: Contact the Northern Telecom development organization.

3704 Major Error

Cause: An I/O error occurred when a read or write was requested on the specified data port. This is a software error.

Impact: Failure of the networking session.

Action: If the problem persists, contact your NT support organization.

NT: Use the debugger to restart NMTA. If necessary, contact the Northern Telecom development organization.

3705 Minor Error

Cause: A disk error occurred.

Impact: If the problem occurs three times on the same message an NDN will be generated and the message will be discarded.

Action: Look up the associated low level return code for more information. Contact your NT support organization.

NT: Follow the action described for disk error (Class 14). If necessary, contact the Northern Telecom development organization.

3706 Minor Error

Cause: The specified message was corrupted.

Impact: The system will try to transmit the message three times. If unsuccessful the message will be discarded and an NDN will be generated.

Action: Look at the surrounding SEERs. An associated SEER may indicate the problem. If you are unsure of the problem, contact your NT support organization

NT: Follow the action described for the surrounding SEERs. If necessary, contact the Northern Telecom development organization.

3707 Minor Error

Cause: The ATA and the data link task fell out of synchronization. This usually happens to a very noisy line.

Impact: The message will be resent later.

Action: None. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, contact the Northern Telecom development organization.

3708 Minor Error

Cause: An unexpected call progress message was received from the VSS. The first number shown in the SEER is the GTI Call Progress Status. The second number is the supplementary information for the Call Progress Status in hexadecimal format.

Impact: Could be a hardware or software configuration problem.

Action: Look up the Call Progress Status in the appendix for more information. Contact your NT support organization.

NT: Contact the Northern Telecom development organization.

3709 Minor Error

Cause: The modem failed to hang up as instructed.

Impact: The modem will not be disconnected.

Action: If the problem persists on the same modem, the modem may be faulty. Install another modem.

NT: If the problem persists after another modem is installed, contact the Northern Telecom development organization.

3710 Minor Error

Cause: The modem at the specified DN did not hear the carrier asserted by its counterpart at the remote site. The causes for this could be:

1. A call setup problem happened at the remote site.
2. The modem at the remote or the local site is faulty.
3. The incorrect networking access number was dialed.
4. The quality of the line was bad.

Impact: The session will be terminated or retried later.

Action: Case 1. If the problem persists, check with the administrator at the remote site to determine the status of networking there. Check the connection DNs specified in the remote site form of the site in question. Dial the connection DNs (the far end should answer, and after a short delay, a modem will assert its carrier signal).

Case 2. Dial the modem at the remote and the local site to ensure that they are working.

Case 3. Check the networking access number to ensure that it is correct and try dialing the remote system again.

Case 4. Try the session again. If the problem persists, contact your NT support organization.

NT: Check the networking and modem setup. If necessary, contact the Northern Telecom development organization.

3711 Minor Error

Cause: Networking dialed the specified DN and then instructed the modem at the DN to go off-hook. But, networking did not detect that the call was answered. This could occur because:

1. The modem setup in the hardware database is wrong.
2. The Meridian 1 switch setup is wrong.
3. The modem and/or the connections are faulty.

Impact: The call/session is not initiated.

Action: Contact your NT support organization

NT: Check that the hardware database setup, dip switch setup, or modem connection setup is correct. If the problem persists, contact the Northern Telecom development organization.

3713 Minor Error

Cause: The ATA expected a call progress message from the VSS but it did not arrive.

Impact: The session cannot be established.

Action: If the problem persists, contact your NT support organization.

NT: Look at associated details in SEER. Contact the Northern Telecom development organization.

3714 Major Error

Cause: Can not allocate buffers from VSS heap.

Impact: The call/session is not initiated.

Action: Contact your Northern Telecom support organization.

NT: VSS should reload itself. If problem persists, contact the Northern Telecom development organization.

3715 Minor Error

Cause: The modem at the specified DN did not respond to a command sent by the ATA.

Impact: Case 1. If the session has been established, the session will be terminated.

Case 2. If the session has not been established, the session will not be established.

Action: Contact your NT support organization

NT: Check the modem setup and the connection to Meridian Mail. If necessary, contact the Northern Telecom development organization.

3716 Minor Error

Cause: The ATA could not locate the NMTA.

Impact: The session cannot be established.

Action: Ensure that the system has a valid time. If the problem persists, contact your NT support organization.

NT: Use the debugger program to ensure that the NMTA is running.

3717 Minor Error

Cause: Due to a tasking error, the data link task could not be started.

Impact: The session cannot be established.

Action: If problem occurs frequently, contact your NT support organization.

NT: Look up the task result for further information.

3718 Minor Error

Cause: A tasking error occurred.

Impact: The session will be terminated.

Action: If problem occurs frequently, contact your NT support organization.

NT: Look up the task result for further information.

3719 Minor Error

Cause: A tasking error occurred during an operation involving a timer.

Impact: The session will be terminated.

Action: If problem occurs frequently, contact your NT support organization.

NT: Look up the task result for further information.

3720 Minor Error

Cause: The specified file is probably corrupt.

Impact: If the problem occurs three times on the same message (FID) an NDN will be generated and the message will be discarded.

Action: If the problem persists, save the NDN message and contact your Northern Telecom support organization.

NT: Contact the Northern Telecom development organization to examine the message.

3721 Minor Error

Cause: A voice handler related error occurred while transferring to the specified file.

Impact: If the problem occurs three times on the same message (FID) an NDN will be generated and the message will be discarded.

Action: See the list of VH errors for more information. If unclear, contact your NT support organization

NT: Look up the return code, and follow the action described for VH error (Class 20). If the problem persists, contact the Northern Telecom development organization.

3722 Minor Error

Cause: An error was received from the voice services shell (VSS).

Impact: The current session will be terminated.

Action: Look up the VSS return code for more information. If unclear, contact your NT support organization

NT: Follow the action described for the VSS error (Class 27). If necessary, contact the Northern Telecom development organization.

3723 Minor Error

Cause: An error was received from the voice port handler (VPH).

Impact: The current session will be terminated and retried later.

Action: Look up the VPH return code for more information. If the problem persists contact your NT support organization

NT: Check the VPH return code for more information. If the problem persists, contact the Northern Telecom development organization.

3753 Info Debug

Cause: Remote system disconnects the current connection unexpectedly.

Impact: Remote system may experience some difficulties and have to disconnect the current connection.

Action: Look at the remote system SEERs to further clarify the problem experienced by the remote site. Go to the Network Administration screen from the Main Menu and use Remote Site Maintenance to disable networking with that particular site.

NT: Verify the network installation by consulting the documents *Networking Installation Guide* (NTP 555–7001–213) and *Networking Installation Guide (SMDI)* (NTP 555–7001–214) for Meridian Mail. If your system uses the AML (previously called CSL) link, then refer to NTP 555–7001–213. If your system uses the SMDI link, then refer to NTP 555–7001–214.

3756 Info Debug

Cause: Remote system does not answer the call.

Impact: The networking path may experience some difficulties. No answer from the called party.

Action: The administrator should check the networking path manually by dialing the connection DN to that particular site.

NT: Verify the network installation by consulting the documents *Networking Installation Guide* (NTP 555–7001–213) and *Networking Installation Guide (SMDI)* (NTP 555–7001–214) for Meridian Mail. If your system uses the AML (previously called CSL) link, then refer to NTP 555–7001–213. If your system uses the SMDI link, then refer to NTP 555–7001–214.

3759 Info Debug

Cause: Poor line quality of the networking path.

Impact: The session will be terminated.

Action: Check the quality of the networking path by dialing the number from a telephone set and listening to the remote modem signal.

NT: If the problem persists, contact the Northern Telecom development organization.

3762 Info System

Cause: The DSP failed to detect the carrier from the remote site's modem. The causes for this could be:

1. A call setup problem happened at the remote site.
2. The modem at the remote or the local site is faulty.
3. The incorrect networking access number was dialed.
4. The quality of the line was bad.

Impact: The session will be terminated and retried later.

Action:

Case 1. If the problem persists, check with the administrator at the remote site to determine the status of site networking. Check the connection DN specified in the remote site form of the site in question. Dial the connection DNs (the far end should answer, and after a short delay, the remote modem will assert its carrier signal).

Case 2. Dial the modem at the remote site to ensure that it is working.

Case 3. Check the networking access number to ensure that it is correct and try dialing the remote system again.

Case 4. Try the session again. If the problem persists, contact your NT support organization.

NT: If the problem persists, contact the Northern Telecom development organization (NT–TOR).

Class 38 Simplified Message Desk Interface (SMDI)

Introduction

The Simplified Message Desk Interface (SMDI) link handler transfers messages between the switch and Meridian Mail. The SMDI link handler communicates with the switch using SMDI protocols and communicates with an application task, such as VSS, OS and MMI using the GTI interface.

Failures in the SMDI link handler results in lost messages leading to call answering not working.

A Class 38 SEER may contain:

- state of the SMDI link
- return code from lower level software

  Note: Use the HWLOC in the SEER to correlate the SEER message with the MMI SMDI link status screen.

  A LINKID of 1 in the SEER does not necessarily correspond to LINK #1 on the MMI SMDI link status screen.

  It is recommended that the LINKIDs be set up at installation time with meaningful names, for example, UCLA, rather than allowing them to default.

Reports

3800 Critical Error

Cause:

1. If the text says “Error registering the link handler”, the link handler failed to register with the name server.
2. The link handler failed to allocate segment.
3. The link handler encountered an error trying to allocate the buffer pool.
4. The link handler obtained an invalid node number.
5. The link handler encountered an error opening the hardware database, as indicated by the text. If the return code is 1105, the volume server was not started. It must be started before the SMDI link handler.
6. If the text says “Error obtaining dataport information no record with node number nn”, the system could not find a node record in the database that matched the number of the node on which the link handler will be loaded.
7. If the text says “Error obtaining data port information. Not found” no data port records of data type SMDI were found in the database.
8. If the text says “Error obtaining dataport information. Parent record not found”, no parent record for the data port records was found. For example, if a data port record with location 1 1 2 is defined then a record with location 1 1 must be defined. This record must be of component type SBC or RSM.
9. If the text says “Error obtaining data port information. Wrong component type.”, the parent record of the data port record is not of the appropriate component type. The only valid component types for an SMDI data port record are SBC and RSM.
10. If the text says “Error obtaining data port information. SBC port not valid : nn” where nn is the invalid port number, the SBC port number is not correct in the hardware database. The only values that can be entered for an SBC port are 1 or 2, where 1 indicates the console port and 2 indicates the data port.
11. If the text says “Error obtaining data port information. RSM port not valid : nn where nn is the invalid port number, the RSM port number is not correct in the hardware database. The valid values for an RSM port are 1 through 4.
12. The port indicated in the text was not initialized. This can happen when the system is running on the RSM board. It may be that the initialization software for the board was not loaded, so the SMD link handler cannot initialize the port on the RSM board. Other requirements: The RSM handler software (RSMHDLR) must be loaded before the SMDI link handler software. The SMDI software requires an entry in the STARTLIST.

13. If the text says “Error on initializing interrupts” and the I/O error return code is 109, the SMDI link handler tried to get sole possession of the dataport but access was denied. Some other software must have control of the interrupts.
14. SMDI failed to initialize a task, as indicated by the text. The task result isolates the cause.
15. If the text says “More than 10 attempts made to connect to external modems”, the onboard modem cannot establish connection to the external modem. Ten atempts have been made and will continue to attempt to connect.

Impact: The link handler will not be started.

Action: Contact your NT support organization.

NT:

Case 1.	Check that name server is running.
Case 2.	Check if memory for that node is OK by entering PUP level and typing ‘mem’. If it is, replace the SMDI AREA file.
Case 3.	Check if memory for that node is OK by entering PUP level and typing ‘mem’. If it is, replace the SMDI AREA file.
Case 5.	Start the volume server, then the link handler.
Case 6.	Put the node record in the hardware database.
Case 7.	Check if there are dataport records of type SMDI data in the database. If not, add some. If so, the number of the node on which the link handler will be running must match the node number for which the dataport records are defined. Change the hardware database accordingly.
Case 8.	If the parent record exists, the number of the node on which the link handler will be running must match the node number for which this record is defined.
Case 9.	Modify the parent record of the dataport record.
Case 10.	Change the values in the dataport records.
Case 11.	Check port range for RSM card 1 through 4.
Case 12.	Check STARTLIST, make sure RSM_handler started before SMDI.
Case 13.	Run the link handler on some other port. You must change the hardware database to reflect the new situation.
Case 14.	Look up the TaskResult.
Case 15	Verify the status of the external modem. If required, reset the external modem. Check the cable connections from the SPM modem

transition module to the modem. You can also attempt to disable and re–enable the link. If the problem persists, disable the node and run OutofService diagnostics.

3801 Minor Error

Cause: An asynchronous tasking error occurred.

Impact: The message sent to the application will be lost.

Action: Contact your NT support organization if the problem persists.

NT: Analyze the SEER and error code to determine the problem.

3802 Minor Error

Cause: A synchronous tasking error occurred.

Impact: The message sent to the application will be lost.

Action: Contact your NT support organization if the problem persists.

NT: Analyze the SEER and error code to determine the problem.

3803 Info Admin

Cause: This SEER announces that one of the SMDI internal counters has overflowed and has been reset automatically to 0.

Impact: The number in parentheses corresponds to the following counters:

1 Trf_In_Msg – The number of messages sent from switch

2 Msg_Sent – The number of messages sent to application

3 Msg_Not_Sent – The number of errors sending detail call information to applications

4 InvMWIUpdate – The number of times there was a request to turn MWI on or off for an invalid DN (It does not include the invalid polling DN)

5 BlkMWIUpdate – The number of times there was a request to turn MWI on or off and acknowledgement was blocked

6 InvPollDNUpdate – The number of times there was a request to turn MWI on for the polling DN and we received the negative acknowledgment

7 MWIon – The number of times the request to turn MWI on was made

8 MWIoff – The number of times the request to turn MWI off was made

9 Logins – The number of times the applications logged into the devices

10 Logouts – The number of times the applications logged out of the devices

11 LinkDown – The number of times the link went down

12 Request Denied – The number of times request was made and the link was down (For example: application tries to log in when link is down)

13 InvMsgs – The number of invalid PCI messages received from the switch

14 BadMsg – The number of bad packets or bad formats detected from the incoming messages

15 Trf_STBY–msg – The number of msgs sent from standby modems for diagnostics

16 Trf–Con–msg – The number of messages sent from onboard modems attempting to connect the external modems

17 OKcommand – The number of good packets received from modem commands in the process of connecting

18 BadCONMsg – The number of bad packets or bad formats detected from incoming messages when trying to connect modems

19 Connected – The number of times a connection was made

20 Connectattempt – The number of attempts at connection between onboard and external modem

Action: None

NT: None

3804 Minor Admin

Cause: The link handler polled the switch and did not receive an acknowledgment. This indicates that the SMDI link has gone down.

Impact: If the link is down, no communication will take place between the CSE and Meridian Mail. Meridian Mail will not be able to send or receive SMDI messages.

Action:

1. Make sure that the SMDI device has been data filled to match the SMDI data port entry in the Meridian Mail hardware database. Specifically, the baud rate and parity defined in table TERMDEV for the device must be the same as the baud rate and parity defined for the SMDI data port on Meridian Mail.
2. Make sure that the IOC card on the switch side, which has the RS-232 cable connected to it, has been put into service. To do this, refer to the relevant *Installation and Maintenance Guide*, NTP 555–70x1–250. For the Options platform, refer to the *Options Installation Guide*, NTP 555–7011–210.
3. Restart the SMDI link on the switch side by utilizing the MAP terminal to BSY/RTS the link.

NT: Restart the SMDI on the switch side.

3805 Minor Error

Cause: An error occurred in sending the Present Call Information (PCI) message to an application because the application was not logged into the voice channel. This will happen when a call comes through on a UCD line that is enabled on the switch but disabled in the hardware database on the Meridian Mail side.

Impact: The message will be lost.

Action: Check the channel status via the MMI screen. The channel must be enabled in both the hardware database and the switch side or disabled in both places. If the channel has to stay disabled on the Meridian Mail side then it must be disabled on the switch side.

NT: Check if the channel is assigned to the link in question. Verify that the switch side has correct SMDI link assigned to it. If the problem still persists, contact Northern Telecom's support organization.

3806 Minor Admin

Cause: An SMDI message came to the link but no corresponding message desk and terminal was set up in the Meridian Mail hardware database.

Impact: The message will be lost.

Action: Check the consistency of the Meridian Mail hardware database and the UCD lines on the switch side. The following conditions can be checked:

1. Make sure that the message desk number and terminal number are defined properly for each channel. The message desk number for each channel on the Meridian Mail side must be the number defined in the UCDGRP table. The terminal numbers (or line numbers) defined for each channel on the Meridian

Mail side must correspond to the line numbers given to each agent of the SMDI UCD group.

2. Make sure that the number of UCD agents that are in service on the switch side corresponds to the number of channels that are in service on the Meridian Mail side.

NT: Use Md_ma to confirm consistency.

3807 Minor Admin

Cause: The argument string for the SMDI entry in the PRM STARTLIST was not set or is out of range. This is not critical but memory will be saved when the argstring is set in the PRM STARTLIST. The SEER indicates the maximum number of channels.

Impact: The memory requirements for the SMDI link handler will increase.

Action: Contact your NT support organization.

NT: Set the argstring for the SMDI entry in the STARTLIST correctly.

3813 Info Admin

Cause: The driver was unsuccessful in stealing the interrupts.

Impact: The interrupts did not enable.

Action: Contact Northern Telecom.

NT None

3818 Info Admin

Cause: The SEER announces that the SMDI has come up. Therefore, the link handler and the switch are communicating with one another again.

Impact: None

Action: None

NT: None

3819 Minor Error

Cause: Bad Parameter passed in or used.

Impact: Certain function may not be performed.

Action: None

NT: Contact Northern Telecom's support organization.

3820 Info Admin

Cause: Restarting the link with more channels than it originally had. Administrator/VEM added more channels and started up handler.

Impact: The extra added channels will not be included for that link.

Action: Reboot the system, after changes made.

NT: If the problem persists, contact Northern Telecom's support organization.

3821 Major Error

Cause: Registering with the name server failed.

Impact: Will not be able to locate the link handler. No applications can login.

Action: Check the return code for more information.

NT: Contact Northern Telecom's support organization.

3822 Major Error

Cause: VCM failed to register the parent SMDI.

Impact: No link handlers for the node the parent program was on.

Action: Contact your Northern Telecom support organization.

NT: Same as action

3823 Info Admin

Cause: The SEER announces what the state link status is going to be (either in-service or out-of-service), or if a nonsupport maintenance request has been received by the link handler.

Impact: None

Action: None

NT: None

3824 Minor Admin

Cause: No channel found for link in the hardware database.

Impact: link handler does not support any channels.

Action: Modify hardware database and add channels if required.

NT: Verify that the database has channels or ports assigned to the link, and that the linkid corresponds with the SMDI link.

3825 Major Error

Cause: Problem with the indexing into the CAT info tables memory. Indexing beyond 192 channel limit.

Impact: Could cause serious memory corruption.

Action: Verify that the total amount of channels defined in the system hardware database is not more than 192. Contact your Northern Telecom support organization.

NT: Same as action

3826 Minor Error

Cause: Not able to inform VCM of status change for the link.

Impact: Link could remain in faulty status. No switch link performed.

Action: Contact your Northern Telecom support organization.

NT: Check surrounding SEERs for VCM errors. Contact your Northern Telecom support organization.

3827 Minor Error

Cause: The active link could not be located from the node which contains the standby link.

Impact: No information transferred from active to redundant. Some messages (MWI) may not be sent.

Action: Contact your NT support organization.

NT: Check surrounding SEERs for more information. If the problem persists, contact Northern Telecom's support organization.

3828 Minor Admin

Cause: LinkID being used was not originally in the hardware for that node.

Impact: Link might not be brought up or certain functions may not be performed.

Action: Check hardware database for LinkID. If LinkID is incorrect, contact your NT support organization.

NT: Same as action.

3829 Minor Error

Cause: The board type does not support switching links. Wrong board type.

Impact: The switch link will be ignored.

Action: Contact your NT support organization.

NT: Check hardware database for board type (should be SBC/UBC).

3830 Minor Admin

Cause: The type of system does not support redundant links.

Impact: Switch link command will be ignored.

Action: Contact your NT support organization.

NT: Make sure system is of type MSM.

3831 Minor Admin

Cause: The port being used is not in the range 0–3.

Impact: Port may not be initialized.

Action: Contact your NT support organization.

NT: Check hardware database for port number.

3832 Info Debug

Cause: General information given during the processing of a PCI message.

Impact: None

Action: None

NT: None

3835 Major Error

Cause: The Link reported a fault—no handshaking for 5 minutes. If the link is in REDALARM, the link handler has polled the switch and not received an acknowledgement. If link is in YELLOWALARM, then onboard modem is having problems connecting to the external modem.

Impact: The link will be down; no communication will take place. Mail will not be able to send or receive SMDI messages. If redundancy is available, when the fault occurs the link will switch to the partner link. If redundancy is not available (that is, no redundancy, partner faulty, partner out-of-service), then the link will report fault every 5 minutes. For every second fault reported, the modem on the link will be reset–it will try to re–establish the modem connection again.

Action:
1. If REDALARM, check the SMDI status on the switch side, and reset the link on the switch side.
2. Verify the cable connections are still in place.
3. Disable/enable the SMDI link. Reset the link on switch side.

NT: Same as action

3836 Minor Error

Cause: Onboard standby modem self-test produced an error count.

Impact: The modem is faulty.

Action: Disable the standby modem. Run out-of-service diagnostics.

NT: Same as action

3899 Info Debug

Cause: General information given during the processing of a PCI message.

Impact: None

Action: None

NT: None

Class 39 Hardware Database (HD)

The Hardware Database HD keeps inventory of the hardware components, including nodes, channels, cards, mass storage devices and tape drives.

Usually only the requested operation fails and the Hardware Database stays intact.

A Class 39 SEER generally contains:

- lower level return codes
- hardware location codes

These codes can be found in the Appendix of this document.

Class 40 Man Machine Interface Server (MS)

Introduction

The Man Machine Interface (MMI) Server handles text base administration arbitration and the gathering of dynamic status information from other programs.

Text base arbitration is required for the Multiple Administration Terminal feature. Similarly, the gathering of dynamic system, node, card, DSP port, T1 Link (MSM only), T1 Channel (MSM only), disk, and SMDI/AML Link status by the single source MMI Server will in future allow the MMI programs to display dynamic status information on different administration terminals with minimal impact to performance.

Reports

4000 Minor Error

Cause: The MMI server failed to register the update task with the PRM or SEER Server.

Impact:
1. If the SEER text indicates the failure is with the PRM, for example, “MS_INFO: PRM Register Failed,” then the MMI server will not receive dynamic status from the PRM regarding the node status.
2. If the SEER text indicates the failure is with the SEER server, for example, “MS_SERVER: Program Completed by Request,” or “MS_SERVER: Cannot register,” then the MMI server will not receive the contents of the last SEER.
3. The MMI display of the node status or the display of the last event on the system status screen will be incorrect.

Action: Contact your Northern Telecom support organization.

NT: Restart MMI_Server program using PRM_CONTROL.

4002 Minor Error

Cause: The MMI server cannot start some internal task.

Impact: Some dynamic status information will not be updated by the MMI server program. The MMI status and maintenance displays will not display changes to various node, card, DSP port, T1 channel and link status.

Action: Contact your Northern Telecom support organization.

NT: Restart MMI_Server program using PRM_CONTROL.

4003 Minor Error

Cause: The MMI server could not read the hardware database or could not obtain disk information.

Impact: If the SEER text indicates the failure to read the HWDB, then the configuration record will not be received by the MMI program. The MMI program may display wrong MMI screens based on incorrect platform information. If the SEER text indicates failure to communicate with SD_MMI, the MMI server could not obtain disk information from the specified node.

Action: If the MMI server could not read the hardware database, contact your Northern Telecom support organization. If the MMI server could not obtain disk information, verify if the node is faulty or booting. Either condition will cause this error. Otherwise contact your Northern Telecom support organization.

NT: Use utility MD_MA to ensure that a hardware database exists on the system, then Restart MMI_Server program using PRM_CONTROL.

4005 Minor Error

Cause: The MMI server could not read or write to billing control file.

Impact: The MMI program will not be able to read or change billing control information.

Action: Contact your Northern Telecom support organization.

NT: Use utility md to ensure that the billing control file exists on the system. Then restart the MMI_Server program using PRM_CONTROL.

4006 Info Admin

Cause: Billing control file created successfully or billing control table audited successfully.

Impact: None

Action: None

NT: None

4008 Info Error

Cause: MMI server was killed and restarted because of an initialization failure.

Impact: MMI server is restarted.

Action: Contact your Northern Telecom support organization.

NT: Verify the MMI server program is running using PRM_CONTROL.

Class 41 Voice Channel Maintenance (VCM)

Introduction

The purpose of Voice Channel Maintenance (VCM) is to perform maintenance actions on various voice based devices. They include T1 Link handlers, Telephony channels, DSP ports, SMDI link handlers; they also assist in other maintenance operations on nodes and cards. The VCM is also responsible for starting up all the voice based programs, such as the VSSs, VPHs, T1 link handlers, and SMDI link handlers.

Some general rules regarding VCM SEERs:

- If a maintenance problem occurs the SEER will normally provide a HWLOC that corresponds to a device in the hardware database.
- If a device is reporting problems or it is not working properly do the following:

1 Disable the device(s)

2 Run OutOfService diagnostics if available

3 Enable the device

If this does not produce satisfactory results do the same to its parent. For example, if you cannot disable a port then try to disable the Card.

In addition to the SEER number and the HWLOC the VCM also prints the device status, event, command and cause of program termination when appropriate.

On some SEERs the Device type is printed (eg. DevType=Channel).

Value Printed	Explanation
SMDI	The SMDI link Handler
T1LH	The T1 Link Handler

Channel	The VSS associated with the Telephony channel
Port	The VPH associated with the DSP port
NODE	The Node which can be any node (MSP, SPN, TIFN)
DSP	The DSP
System	The System

When a program terminates the cause will be printed on the SEER (eg. Cause=Exception)

Value printed	**Explanation**
Exception	An exception occured or program died due to an error
Completion	A program completed.
Shutdown	A program was shut down by the PRM.
UnexpectedUnLoad	A program unloaded unexpectedly.
NotLoaded	A program could not be loaded.

On some SEERs the VCM Device Status will be printed. DevStatus=isOnline means the device is in-service online and ptrStatus=isStdby means the partner device is InService Standby.

Value printed	**Explanation**
isNotLded	InService, not loaded
isLding	InService, loading
isLded	InService, loaded
isOnLine	InService, OnLine
isSTdBy	InService, standby
isPCtsy	InService, courtesy down, pending
isCtsyDown	InService, courtesy down
isUnLoading	InService, Unloading

oos	OutOfService
oosTesting	OutOfService, offline testing
oosTestOver	OutOfService, offline test over
Faulty	faulty
Unconfigured	unconfigured

On some SEERs the event reported by the device is printed (eg. DevEvent=ISOn1)

Value printed	**Explanation**
ISOn1	Going Inservice Online
ISOff1	Going Inservice Offline
ISErr	Error occured
ISRed	Red Alarm occured
ISYlw	Yellow Alarm occured
ISBlue	Blue Alarm occured
OoS	Going OutofService
POoS	Pending OutofService
ISCPnd	Pending a Courtesy Down
ISCDwn	Going into Courtesy Down state
DrvFlty	Fault detected (DSP)
1F	Fault 1 detected
2F	Fault 2 detected
3F	Fault 3 detected
ClrAlrm	Alarm cleared
Of1Diag	Offline Diagnostics

Reports

4122 Info System information.

Cause: VCM has selected a new T1 span as the clock source.

Impact: None.

Action: None. Excessive occurrences may indicate a problem with the clock source.

NT: Check the T1 clock sources on the DMS and T1 span connections.

4129–4138 Minor Error

Cause: Problem loading DSPs or communicating with the VOM_PP. Look up Class 41 codes in the Appendix for more information.

Impact: Three channels or ports will be affected.

Action: Disable Voice Card from MMI and run out–of–service diagnostics, and re-enable the card.

NT: Disable Voice Card from MMI and run out–of–service diagnostics, and re-enable the card.

4143 Minor Error

Cause: Could not get device status from the VCA for channels and ports.

Impact: Device status not reliable for reporting period.

Action: Look up the return code. If unclear, contact your NT support organization.

NT: Analyze the other SEERs for more information. If the problem persists contact the NT development organization.

4144 Minor Error

Cause: A requested maintenance action failed or was rejected.

Impact: The requested maintenance action will not be performed.

Action: Read the SEER text carefully and look up Class 41 return codes in the Appendix. The SEER text will specify the device type and HWLOC, it's state, and the command applied to it. Refer to the introduction of this SEER class for the explanation of these values.

NT: The operation could fail for several reasons. For example, an enable request from the MMI on loading a device could be rejected.

4146 Minor Error

Cause: An unexpected event occurred in device report.

Impact: None

Action: If system fails to stabilize, disable the affected devices, run OOS diagnostics and re-enable.

NT: Examine SEER to determine which device is reporting the problem. Check OOS diagnostics results. This may occur when a hardware pack has been pulled.

4147 Minor Error

Cause: Configuration problem. There are not enough SPN nodes to accommodate the number of configured T1 trunks in the hardware database.

Impact: None

Action: Contact your NT support organization.

NT: Remove the effected T1 Span records from the hardware database and reboot the system.

4155 Major Error

Cause: There was a problem reading or writing to the hardware database.

Impact: On startup it will prevent the VCM from starting all devices.

Action: Disable and re-enable affected devices. Look up the return code printed. If it happens at bootup or recovery, contact your NT support organization.

NT: If the problem occurred during bootup or recovery then restart the VCM.

4158 Minor Error

Cause: An unexpected event occurred.

Impact: Maintenance action will fail.

Action: Disable, run OOS diags and re-enable device.

NT: None

4161 Critical Error

Cause: Configuration problem. At startup could not get memory required. There are too many programs on the VCM node.

Impact: VCM and the system will not function.

Action: Contact your NT support organization.

NT: Examine system configuration and reboot.

4163 Major Error

Cause: Many alarms have been reported by a T1 link, there is a possible problem on the far end of the link.

Impact: No channels on the T1 link will accept calls.

Action: Check T1 connections.

NT: Same as action.

4164 Minor Error

Cause: A tasking error occurred.

Impact: Maintenance action will fail.

Action: Disable, run OOS diags and re-enable device.

NT: Check surrounding SEERs for results of tasking error. Recover any devices that are affected.

4165 Minor Error

Cause: A nil task ID was found when a real one was expected.

Impact: Maintenance action will fail.

Action: Disable, run OOS diags and re-enable device.

NT: Disable, run OOS diags and re-enable device.

4166 Critical Error

Cause: An unexpected event occurred.

Impact: Maintenance action will fail.

Action: Disable, run OOS diags and re-enable device.

NT: Disable, run OOS diags and re-enable device.

4167 Minor Error

Cause: A program terminated. Normally this is due to a maintenance action. It can occur when a node dies or a program crashes.

Impact: The device is disabled momentarily.

Action: Wait for it to recover. If it does not then disable, run OOS diags and re-enable device. Recovery should take less than one minute if it is an isolated case.

NT: If device does not recover, contact Northern Telecom's development organization.

4168 Minor Error

Cause: A HWLOC was passed in that the VCM could not find in its tables. In most cases the Hardware Database has been improperly filled with regards to redundant partners.

Impact: The device related to the HWLOC will have recovery problems.

Action: Contact your NT support organization.

NT: Check the hardware database for redundancy relationships.

4173 Major Error

Cause: Could not start the device.

Impact: Maintenance action failed.

Action: Analyze the other SEERs for more information.

NT: If the problem persists contact the NT development organization Disable and re-enable the device. If the error persists, use PRM_CONTROL to kill the appropriate VSS or T1LH. Compare the Argstring in PRM_CONTROL with the HWLOC in the SEER to find the right one. In the Argstring there are spaces instead of '–'. Also, ignore values like 254 (nil). If you cannot find the program, or it is a VPH, or SMDI, then you will need to disable and re-enable the applicable node.

4175 Critical Error

Cause: A serious initialization problem occurred. Read the SEER text. It is probably due to a configuration problem.

Impact: System will not function.

Action: Contact your NT support organization.

NT: Examine system configuration and reboot.

4182 Minor Error

Cause: Could not start communication with the VSS.

Impact: Maintenance action failed.

Action: Disable, run OOS diags and re-enable device.

NT: Disable, run OOS diags and re-enable device.

4183 Major Error

Cause: VCM unable to locate AML on Fox system.

Impact: VCM will not start until AML is located.

Action: Contact your Northern Telecom support organization.

NT: Check all AML cables for proper connection. Correct any problems, and reboot.

4185 Minor Error

Cause: The VCM has restarted for one of several reasons. The Warmstart prints several information messages.

Impact: Outstanding maintenance action may fail.

Action: For any SEER with a specific HWLOC wait until the system stabilizes and then Disable, run OOS diags and re-enable the device. You should wait for at least 15 minutes.

NT: For any SEER with a specific HWLOC wait until the system stabilizes and then Disable, run OOS diags and re-enable the device. You should wait for at least 15 minutes.

4186 Minor Error

Cause: Standby VCM unable to get information from active VCM.

Impact: Minimal

Action: If problem persists, contact your Northern Telecom support organization.

NT: If problem persists, contact your Northern Telecom development organization.

4187 Minor Error

Cause: Client did not respond to maintenance request.

Impact: Maintenance action failed.

Action: Look up task results. Disable, run OOS diags and re-enable the device.

NT: Look up task results. Disable, run OOS diags and re-enable the device.

4188 Minor Error

Cause: Could not start communication with the PRM.

Impact: Unknown

Action: None

NT: If problem persists, reboot. If problem still remains unresolved, contact Northern Telecom's development organization.

4189 Minor Error

Cause: Could not start communication with the VCA.

Impact: Minimal

Action: None

NT: None

4192 Minor Debug

Cause: An error occurred while registering a device.

Impact: Device that attempted registration will not be registered.

Action: Disable, run Out of Service Diagnostics and re-enable the device.

NT: Disable, run Out of Service Diagnostics and re-enable the device.

4193 Minor Error

Cause: Once per hour the VCM will audit the VSS. A problem was found.

Impact: Device may not be functioning.

Action: Disable, run OOS diags and re-enable device.

NT: Should recover by itself. If problem persists, repeat action.

4194 Minor Error

Cause: On a hardwired system where the voice cables are routed directly to the voicecard, a channel was being enabled and there was no accompanying VPH.

Impact: Channel may not come up.

Action: If the return code is not 0 then disable, run OOS diags and re-enable device. If it is 0 then it recovered by itself.

NT: Verify that the number of channels equals the number of ports in the database, and verify that there are no startup VCM errors.

4195 Minor Error

Cause: A maintenance action did not complete fully or two maintenance actions on one device occurred at the same time and the VCM lost track of the first one.

Impact: Minimal.

Action: Disable and re-enable device.

NT: Disable and re-enable device.

4197 Info System

Cause: An information SEER.

Impact: none

Action: If the SEER is reporting a problem such as a faulty device, consult the introduction of this SEER class for the general guidelines.

NT: None

4198 Info Debug

Cause: An assertion statement failed.

Impact: minimal

Action: Disable, Run OOS diags and re-enable device if necessary.

NT: Check surrounding SEERs. If problem persists, contact Northern Telecom's development organization.

4199 Info Debug

Cause: An information SEER.

Impact: None

Action: None

NT: None

Class 42 Open Access Transfer Agent (OTA)

Introduction

Open Access Transfer Agent (OTA) sends network messages to another voice messaging system, which may or may not be Meridian Mail, using Audio Messaging Interchange Specification Analog Protocol.

There is one OTA for each connection to a given voice messaging system. OTA needs to read system profile, customer profile, networking database file, sender profile, or recipient's profile in order to send or receive a message. NMTA provides OTA with the FID of a message, OTA opens the message and transmits the message by using the standard playback command. For incoming message, OTA receives the message by using the standard record command, and then changes the message format to Meridian Mail message format.

Errors in OTA leads to connection to be terminated. But transfer will be retried within an administrator specified period (for example, five minutes). These errors have a minor impact on the system.

Reports

4200 Info Debug

Cause: AMIS flag is turned on, and a session is completed.

Impact: None

Action: Check if there are any other Class 42 SEERs, and follow the procedure specified.

NT: None

4201 Minor Error

Cause: Error occurs in accessing or creating a message file. Return codes will isolate the cause.

Impact: If error occurs in accessing an outgoing message the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If error occurs in accepting an incoming message, the system will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Check the return code to isolate the problem. If necessary, contact the Northern Telecom development organization.

4202 Minor Error

Cause: Error occurs during transferring voice. Return codes will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

Action: Collect SEERs and contact your Northern Telecom support organization.

NT: Check the return code to isolate the problem. If necessary, contact the Northern Telecom development organization.

4203 Minor Error

Cause: Tasking error occurred. Return codes will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Check the return code to isolate the problem. If necessary, contact the Northern Telecom development organization.

4204 Minor Error

Cause: Error occurs during sending or receiving tones.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error

still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Ensure that the trunk is accessible to the destination system. If necessary, contact the Northern Telecom development organization.

4205 Info Error

Cause: Error occurs during protocol exchange. One of the systems has not conformed with the AMIS protocol standard.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

Action: Collect SEERs and contact your Northern Telecom support organization.

NT: If the other system is not a Meridian Mail system, find out if it conforms to the AMIS-A protocol standard. If necessary, contact the Northern Telecom development organization.

4207 Minor Error

Cause: OTA could not locate NMTA. Return code will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs , the system will generate a NDN. If the error occurs during transferring an incoming message, system will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Ensure that the NMTA task is running. If so, check the return code to isolate the cause of the problem, otherwise contact the Northern Telecom development organization.

4208 Minor Error

Cause: Error occurred during accessing networking database file. Return codes will isolate the cause.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error

still occurs, the system will generate a NDN. If the error occurs during transferring an incoming message, system will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Check to see if the network database exists and check the return code in order to isolate the cause of problem. If necessary, contact the Northern Telecom development organization.

4209 Minor Error

Cause: Could not find recipient in the message envelope.

Impact: The system will continuously retry for the period specified by the administrator. If the error still occurs, the system will generate a NDN.

Action: Contact your Northern Telecom support organization.

NT: The message is corrupted, or there is a software design error. If the problem persists, contact the Northern Telecom development organization.

4210 Minor Error

Cause: Error occurs during reading recipient's information. Return codes will isolate the cause.

Impact: System will terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Check the return code to isolate the cause of the problem. If necessary, contact the Northern Telecom development organization.

4211 Info Debug

Cause: If the system was making a call:
1. The user entered a wrong system access number when composing a message.
2. The receiving system is busy (for example, there are no channels to answer the call in the remote system.)

Impact: For originating system:
The connection could not be established. The system will retry three times, if it still cannot establish the call, it will generate a NDN.
For receiving system:
The channel will be active for 70 seconds and then drop the call.

Action: Collect SEERs. If this happens frequently, contact other system to find out if user entered a wrong number or if the other system is busy most of the time. If it is not

caused by one of the above two reasons contact your Northern Telecom support organization.

NT: If this is not caused by the above reasons, contact the Northern Telecom development organization.

4212 Info Error

Cause: 1. Error occurs because of poor line quality while transmitting analog signal.
2. One of the systems does not conformed with the AMIS-A protocol standard.

Impact: If error occurs during transferring an outgoing message, the system will continuously retry for a period of time specified by the administrator. If the error still occurs the system will generate a NDN. If the error occurs during transferring an incoming message, the system will terminate the session.

Action: Collect SEERs. If the problem occurs frequently, contact your Northern Telecom support organization.

NT: Ensure that the line quality is good. If the other system is not a Meridian Mail system, determine if it conforms to the AMIS-A protocol standard. If necessary, notify the Northern Telecom development organization.

4213 Minor Error

Cause: OTA fails to register.

Impact: If error occurs during starting outgoing session the system will retry three times. If the error still occurs, the system would generate a NDN. If error occurs during starting an incoming session, the system would terminate the session.

Action: Contact your Northern Telecom support organization.

NT: Look up the return code in order to isolate the cause of the problem. If necessary, contact the Northern Telecom development organization.

4214 Info Error

Cause: Other system stopped while transmitting voice.

Impact: The system will terminate the session.

Action: Collect SEERs. If problem occurs frequently, contact your Northern Telecom support organization.

NT: Check if there is any problem with the other system during the transmission of the voice message. If necessary, contact the Northern Telecom development organization.

4215 Minor Error

Cause: Other system detected an error while our system was transmitting voice.

Impact: The system will continuously retry for a period of time specified by the administrator. If the error still occurs, the system will generate a NDN.

Action: Collect SEERs and contact your Northern Telecom support organization.

NT: Ensure that the line quality is good. If the other system is not a Meridian Mail system, check if it can receive an eight-minute message. If necessary, notify the Northern Telecom development organization.

4216 Info Admin

Cause: 1. A user entered a wrong number during composition of an AMIS message.

2. The administrator entered a wrong number in the remote site maintenance screen (network administration).

Impact: The system dialed to a person instead of an AMIS system.

Action: Check the remote site maintenance screen to see if the connection DN is entered correctly.

NT: If the number is correct, ensure that the trunk is accessible to the other AMIS system. If necessary, contact the Northern Telecom development organization.

4217 Info Debug

Cause: Problem occurs during call setup. The SEER text indicates whether the problem occurs at the sending site or the receiving site.

Impact: Outgoing messages will be either NDN or retried later.

Action: Collect SEERs. If the problem occurs frequently, contact your Northern Telecom support organization.

NT: If the problem persists, contact Northern Telecom development.

Class 43 Forms Manager (FM)

Introduction

The Forms Manager (FM) stores and retrieves Voice Form Responses. Requests for the storage or retrieval of a response, or information about responses, are made by the Voice Forms Editor (VFE), Voice Forms Caller's Interface (VFCI), and the Voice Forms Transcription Service (VFTS).

FM errors may affect the usability of the entire Voice Forms feature, may be isolated to an individual call or Voice Form Editor session, or may affect an individual Voice Form definition.

FM SEERs contain:

- An acronym indicating which portion of the FM functionality is reporting the error: FM, FMP or FMS
  - — FM: The FM or one of its tasks has reported the error.
  - — FMP: The error is being reported from the VFE, VFCI or VFTS through the FM interface.
  - — FMS: The error is being reported by a backup/restoration utility which is using FM restoration routines.
- Id# followed by the voice form definition's service id
- R# followed by the response id number

Reports

4301 Minor Error

Cause: A VFTS, VFCI or VFE tried to communicate with the FM server, but the communication failed due to the server not being found on the system.

Impact: VFE The administrator will see an error message indicating that the last operation has failed. Another attempt can be made by the administrator by pressing SAVE again, or selecting the form definition and indicating the operation to be attempted again.

VFCI: The user is played an error message indicating to call again. A response is not recorded.

VFTS: The user is played an error message indicating that a system error has occurred. All responses which have been transcribed will be recorded as having been transcribed.

Action: Attempts will be made by the system to restart the FM. If these SEERs persist for more than ten minutes, this indicates that the recovery has failed. SEERs related to the failed restarting of the FM should be reviewed for their severity and action. Provided the FM is successfully restarted, normal service will be restored.

NT: Verify that the STARTLIST contains the proper entry for the FM. The entry should be:

fm multiserver 1 1 ‘SCSI <list of user volumes>’ critical

where <list of user volumes> is a complete list of all user volumes on the system. For example, on a five–node system the entry would be:

fm multiserver 1 1 ‘SCSI 202 203 204 205’ critical

If the list is complete, look for the problem in the surrounding SEERs.

4302 Minor Error

Cause: A problem has occurred trying to access an information file which is associated with a voice form definition. These information files are accessed either directly by the VFE or through the FM. The error represents a problem accessing the information file.

Impact: VFE: The administrator will be displayed an error message indicating that the last operation has failed. Another attempt can be made by the administrator pressing SAVE again, or selecting the form definition and indicating the operation to be attempted again.

VFCI/VFTS: These services will not be operational for this voice form as they also need access to this information file.

Action: Contact your Northern Telecom support organization.

NT: The lower level return code will indicate a VS, DD or CM error code. This may indicate that a volume is not operating or that the file has become corrupted. Using ad_util, look at the Voice Forms system record. Note the 'InfoVol' value. This is the volume where information files are stored.
If the error condition is not simply that the volume is not operating (1105 error code) then a corruption has occurred in the information files. Information files can be recreated by the following steps:

1. Remove the file. Using AD_UTIL, look at the Voice Form system record. Note the 'InfoVol' value. Using MD, remove the following file:

   /<InfoVol>/vff/<Customer>/<Voice Form Defn. Id>

2. Using the MMI, modify the form definition (the New and Special MWI DN values will have to be filled in on the form again) and SAVE the form.

3. Restart the FM using the PRM_PKG or by rebooting the system.(The recovery code of the FM will recreate the information file based on the responses which exist for the form.

   Note: The 'First–In–First–Out' order of the arrival and transcription of the responses will be lost for existing responses when this recovery is done.

4308 Minor Error

Cause: A VFCI service was unable to create / access the cabinet needed to hold a new response.

Impact: VFCI: The response, which has been recorded, will be lost. The SEER issued will indicate the volume number, customer number, form ID, and response ID of the response affected. The caller will be notified, provided they have not hung up. In the worst case, responses will not be available for transcription or addition, for this volume and the indicated form.

Action: Contact your Northern Telecom support organization.

NT: In the simplest case, the volume or node that the volume resides on, may have just gone down. This is indicated by a lower return code value, 1105, which suggests that the volume does not exist. In this case, when the volume comes up again, responses will be able to be stored.

If the lower level return code indicates another kind of VS, DD or CM error code, this may suggest that the cabinet has become corrupted. In this case, the response cabinet must be deleted to resolve this problem.

Note: All responses stored for the indicated form that reside on this user volume will be lost.

To remove the response cabinet, use MD to remove the file as follows:

/<VolumeId>/vfr/<Customer>/<Voice Form Defn. Id>.

If a large number of responses were waiting to be transcribed from this user volume (and indicated form) then the transcription service will report 'Delays' as transcribers attempt to retrieve the next response to be transcribed. This will occur until the responses, which have just been deleted, are removed from the form information files. As transcribers call in to retrieve responses, responses which are found to be deleted will be removed from the form information files and will not be handed out for transcription. Eventually, all the deleted responses will be removed from the form information files and the 'Delays' will no longer occur.

4309 Minor Error

Cause: A VFCI service was unable to add a new response to an existing response cabinet.

Impact: VFCI: The response, which has been recorded, will be lost. The SEER issued will indicate the volume number, customer number, form ID, and response ID of the response affected. The caller will be notified, provided they have not hung up. In the worst case, responses will not be available for transcription or addition, for this volume and the indicated form.

Action: If a SEER, indicating that a volume server has gone down, was issued prior to this SEER the problem may be transient. Look at all other accompanying SEERs to determine if this appears to be the case. If not, using the MMI, ensure that the offending volume is actually up and running. If the problem cannot be resolved, contact your Northern Telecom support organization.

NT: In the simplest case, the volume or node that the volume resides on may have just gone down. This is indicated by a lower level return code, 1105, which suggests that the volume does not exist. In this case, when the volume comes up again, responses will be able to be stored.

If the lower level return code indicates another kind of VS, DD or CM error code, this may suggest that the cabinet has become corrupted. In this case, the response cabinet must be deleted to resolve this problem.

Note: All responses stored for the indicated form that reside on this user volume will be lost.

To remove the response cabinet do the following: using MD, remove the file:

/<VolumeId>/vfr/<Customer>/<Voice Form Defn. Id>.

If a large number of responses were waiting to be transcribed from this user volume (and indicated form), then the transcription service will report 'Delays' as transcribers attempt to retrieve the next response to be transcribed. This will occur until the responses, which have just been deleted, are removed from the form information files. As transcribers call in to retrieve responses, responses that are found to be deleted will be deleted from the form information files. Eventually, all the deleted responses will be removed from the form information files, and the 'Delays' will no longer occur.

4311 Minor Error

Cause: When a Transcription service has finished transcribing a response, it was unable to remove a response file which had been successfully transcribed.

Impact: The response will be presented to more than one transcriber. (Provided the response and response cabinet, still exist in an understandable state.) In the worst case, responses will not be available for transcription or addition for this volume and the indicated form.

Action:

Case 1. If the lower level return code is 1224, the response cabinet (or response) is missing or has been deleted. This could have occurred naturally if an active form was deleted by the administrator.

Case 2. If the return code is not 1224 or an active form has not been deleted, then contact your Northern Telecom support organization.

NT:

Case 1. If the lower level return code is 1105, the volume used to store the response is not currently operating.

Case 2. If the error condition is not either of the above conditions, then a corruption has occurred in the response cabinet. To resolve this problem, the response cabinet must be deleted.

Note: All responses stored for the indicated form that reside on this volume will be lost.

To remove the response cabinet use MD to remove the file as follows:

/<VolumeId>/vfr/<Customer>/<Voice Form Defn. Id>.

If a large number of responses were waiting to be transcribed from this user volume (and indicated form) then the transcription service will report 'Delays' as transcribers attempt to retrieve the next response to be transcribed. This will occur until the responses that have just been deleted are removed from the form information files. As transcribers call in to retrieve responses, responses which are found to be deleted will be removed from the form information files and will no longer be handed out for transcription. Eventually, all the deleted responses will be removed from the form information files, and 'Delays' will no longer occur.

4312 Minor Error

Cause: When a Transcription service has finished transcribing a response, it was unable to change the state of the response file to indicate that the response had been transcribed.

Impact: The response was or will be presented to more than one transcriber.

Action:

Case 1. If the lower level return code is 4310, the transcriber trying to change the state of the response is not the one who has locked the response for transcription. This should be a very rare occurrence. The only impact is that the response will be transcribed more than once. If this occurs more than once a day, Northern Telecom support should be consulted.

Case 2. If the lower level return code is 4337, the state of the response was invalid. This indicates either a corruption in that state of the response file or in the view of the response file held by this service. The response will be released for transcription by another service. If that service finds its state to be corrupted then SEER 4313 will be issued, indicating that the response was found to be corrupted and that it has been removed from the system.

Case 3. If the lower level return code is 1105, the volume is not operating and a corruption has occurred in the response file. The response will be released for transcription by another service. If that service finds it to be corrupted then SEER 4313 will be issued, indicating that the response was found to be corrupted and that it has been removed from the system. If this continues to occur more than once a day, contact your Northern Telecom support organization.

NT: If this is continually occurring then there is a disk medium problem. The SEER text will indicate the number of the volume which has the problem. Any disk medium problems should be repaired and the volume restored.

4313 Minor Error

Cause: When a Transcription service was handed a response to be transcribed from the FM the response file was found to be corrupted.

Impact: The response is removed from the system.

Action: If this continues to occur more than once a day, contact your Northern Telecom support organization.

NT: If this is continually occurring then there is a disk medium problem. The SEER text will indicate the number of the volume which has the problem. Any disk medium problems should be repaired and the volume restored.

4314 Minor Error

Cause: When a Transcription service was handed a response to be transcribed from the FM the response file could not be accessed.

Impact: The response will be given to another service for transcription. If the volume is found to be offline then transcription is delayed until the volume is online.

Action: If this continues to occur more than once a day, contact your Northern Telecom support organization.

NT: If this is continually occurring then there is a disk medium problem. The SEER text will indicate the number of the volume which has the problem. Any disk medium problems should be repaired and the volume restored.

4315 Info Debug

Cause: The parameters given in the STARTLIST are not correct.
SEER text may say:

a. STARTLIST Format:FM [MemType] <Vol> <Vol> ....

b. Too many volumes specified for server.

c. No volumes passed.

Impact: The Forms Manager will not start until these parameters are resolved.

Action: The parameters should be adjusted based on the type of error indicated.

NT: Ensure that the parameters for the FM in the STARTLIST are correct. The entry should be:

fm multiserver 1 1 ‘SCSI <list of user volumes>’ critical

where <list of user volumes> is a complete list of all user volume on the system. For example, on a five–node system the entry would be:

fm multiserver 11 ‘SCSI 202 203 304 205’ critical

4325 Minor Error

Cause: A problem has occurred trying to synchronize restored voice form data with data which already exists on disk. A file, cabinet, or service could not be accessed.

Impact: Only part of the restored data has been synchronized.

Action: Contact your Northern Telecom support organization.

NT: If the problem persists, the file, cabinet, or service listed cannot be accessed.

Possible situations:

- The DR is not running: Check using the debugger and restart the server using the PRM_CONTROL or by rebooting the system.
- The stated volume server is not running: Check using the debugger and restart the server using the PRM_CONTROL or by rebooting the system.
- The OFS is not running for the system profile to be accessed properly: Check using the debugger and restart the server using the PRM_CONTROL or by rebooting the system.
- The indicated file system structure has become corrupted: Attempt to open the file using MD. If this cannot be done then remove the file using MD.

On a non-MSM system reboot the system and perform the synchronization again. On an MSM, use PRM_CONTROL to shutdown the FM with NoRestart. From the PUP level:

> load FM_PKG

> FM_SYNCALL <Vol> .. <Voln>

where “<Voll> .. <Voln>” are the user volumes on this system.

If the FM_SYNCALL succeeds (i.e., there are no SEERs indicating a failure on an MSM), restart the FM using PRM_CONTROL.

If the problem persists, contact your development organization.

4326 Info Debug

Cause: A status note from the FM indicating a significant event, for example, Restart complete.

Impact: None.

Action: None.

NT: None.

4327 Minor Error

Cause: The FM has not been able to be started or restarted. The error which has occurred will be stated in the text of the SEER.

Impact: The PRM will attempt to restart the FM. If not successful then voice form responses cannot be recorded or transcribed. If successful, then service will be restored.

Action: If this problem occurs more than once a day, contact your Northern Telecom support organization.

NT: This can only have occurred as a result of a software design or operating system error. Contact your development organization.

4328 Minor Error

Cause: The FM's recovery task has encountered an error while trying to reset the MWIs for the indicated voice form. The voice form definition was found in the DR but the form information file, which contains the MWI DNs, could not be accessed. The lower level error indicated occurred while trying to access the information file.

Impact: If the file access problem was not transient, responses will not be available for transcription and responses cannot be left for the indicated form.

Case 1. If the file access problem was transient (the volume was down and was restarted) then the MWIs associated with this form may not reflect their proper MWI values. A daily (midnight) audit will resolve this problem.

Action: If the Voice Form Editor software cannot view the indicated form then contact your Northern Telecom support organization. SEER 4302 will appear during the viewing attempt.

NT: The lower level return code will indicate a VS, DD or CM error code. This may indicate that a volume is not operating or that the file has become corrupted. Using AD_UTIL, look at the voice forms system record. Note the 'InfoVol' value. This is the volume where information files are stored.

If the error condition is not simply that the volume is not operating (lower level error return code 1105) then a corruption has occurred in the information files. Information files can be recreated by the following steps:

1. Remove the file. Using AD_UTIL, look at the voice form system record. Note the 'InfoVol' value. Using MD, remove the following file:

   /<InfoVol>/vff/<Customer>/<Voice Form Defn. Id>

2. Using the MMI, modify the form definition. The New and Special MWI DN values will have to be filled in on the form again. SAVE the form.
3. Restart the FM using PRM_CONTROL or by rebooting the system. The recovery code of the FM will recreate the information file based on the responses which exist for the form.

   Note: The 'First–In–First–Out' order of the arrival and transcription of the responses will be lost for existing responses when this recovery is done.

4329 Minor Error

Cause: A sub–task of the Forms Manager has crashed or has failed to communicate with the Forms Manager.

Impact: The FM will restart itself. Callers will not be able to leave responses or retrieve responses for transcription until the FM has restarted successfully. (The outage should last less than one minute.)

Action: If this problem occurs more than once a day, contact your Northern Telecom support organization.

NT: This can only have occurred as a result of a software design or operating system error. Contact your development organization.

4330 Minor Error

Cause: A sub–task of the FM could not be started.

Impact: Case 1. MWIs may not reflect the number of responses waiting for transcription.

Case 2. A portion of existing responses may not be available until recovery has been performed.

Case 3. If the administrator attempts to remove a form definition, the system may indicate that a channel is currently being used to record a response, when there is in fact no activity for that definition.

Action: An attempt to start this task will be made every five minutes by the FM. If the task is successfully started, the above impacts will be cleared. If this problem occurs more than once a day, contact your Northern Telecom support organization.

NT: This can only have occurred as a result of a software design or operating system error. Contact your development organization.

4331 Info Debug

Cause: The FM was attempting to restart itself and found that it was unable to shut itself down properly, instead it elected to terminate itself and rely on the PRM to restart the FM.

Impact: The FM will be restarted by the PRM. Callers will not be able to leave responses or retrieve responses for transcription until the FM has restarted successfully. The outage should last less than two minutes.

Action: If this problem occurs more than once a day, contact your Northern Telecom support organization.

NT: This can only have occurred as a result of a software design or operating system error. Contact your development organization.

4334 Minor Error

Cause: The FM's recovery task has encountered an error. Responses exist on a volume for a form which does not exist in the DR.

Impact: Recovery for this volume will not complete successfully. The recovery will be attempted again in five minutes.

Action: If the error occurs more than two or three times, contact your Northern Telecom support organization.

NT: If the DR is not corrupt contact your development organization.

4338 Minor Error

Cause: A problem has occurred trying to synchronize restored voice form data with data which already exists on disk. A file or cabinet was found to be corrupted.

Impact: Only part of the restored data has been synchronized. The problem file or cabinet must be removed and the synchronization process performed again.

Action: Contact your Northern Telecom support organization.

NT: The file or cabinet listed was found to be corrupted. Remove the file using MD. On a non-MSM system, reboot the system and perform the synchronization again. On an MSM, use PRM_CONTROL to shutdown the FM with NoRestart.

From the PUP level:

> load FM_PKG

> FM_SYNCALL <Vol> .. <Voln>

where "<Vol> .. <Voln>" are the user volumes on this system.

If the problem still persists, contact your development organization. On an MSM, if the FM_SYNCALL succeeds (i.e., there are no SEERs indicating a failure on an MSM), restart the FM using PRM_CONTROL.

Note: Different files may have become corrupted and this process may have to be performed a number of times.

Class 44 T1 Diagnostics

This SEER class is used to provide T1 diagnostics information and faults. These diagnostics are automatically executed at bootup and can manually be invoked when the card is out-of-service.

Diagnostics results are only sent to the SEER printer if the diagnostics program is informed to do so by the controller/PRM.

All failure results should be investigated and the necessary hardware should be replaced.

4400 Info Admin

Cause: General information from the T1_Diag program.

Impact: None.

Action: None.

NT: None.

4401 Minor Admin

Cause: Argument string supplied for T1 diagnostics is incomplete.

Impact: Diagnostic not performed.

Action: If startup or offline diagnostics, then contact your Northern Telecom support organization. Otherwise check argument string and retry diagnostic.

NT: Contact your Northern Telecom support organization.

4402 Minor Admin

Cause: Invalid T1 diagnostic test number supplied.

Impact: Diagnostic not performed.

Action: If startup or offline diagnostics, then contact your Northern Telecom support organization. Otherwise check argument string and retry diagnostic.

NT: Contact your Northern Telecom development organization.

4403 Minor Admin

Cause: End address is larger that start address.

Impact: Diagnostic not performed.

Action: If startup or offline diagnostics, then contact your Northern Telecom support organization. Otherwise check argument string and retry diagnostic.

NT: Contact your Northern Telecom development organization.

4404 Minor Admin

Cause: Invalid type supplied.

Impact: Diagnostic not performed.

Action: If startup or offline diagnostics, then contact your Northern Telecom support organization. Otherwise, check argument string and retry diagnostic.

NT: Contact your Northern Telecom development organization.

4405 Minor Admin

Cause: Span number is out of range (0–3 is allowed).

Impact: Diagnostic not performed.

Action: If startup or offline diagnostics, then contact your Northern Telecom support organization. Otherwise check argument string and retry diagnostic.

NT: Contact your Northern Telecom development organization.

4406 Minor Admin

Cause: Could not acquire timeslot to perform diagnostics.

Impact: Diagnostic not performed.

Action: Retry test. If problem still exists then may need to reboot node to release these time slots.

NT: Time slots are acquired from the VCA. Verify that the VCA is running. Also the VCA requires the diagnostic to provide TN verification that the HWDB definition of the T1 card and span are correct.

4407 Minor Error

Cause: T1 diagnostics routine receive tasking error when attempting to communicate with another task.

Impact: Diagnostic may not have been performed or result could not be reported properly.

Action: Check return code provided in the SEER and take any action recommended for that error. Otherwise, contact your Northern Telecom support organization.

NT: Please investigate previous SEERs and any return code to determine the task and type of tasking error. Check if the task is running.

4408 Minor Admin

Cause: T1 68K register test failed.

Impact: T1 card on this node is marked faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503) for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4409 Minor Admin

Cause: T1 68K connection memory test failed.

Impact: T1 card on this node is marked faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4410 Minor Admin

Cause: T1 68K Dual Port RAM test.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4411 Minor Admin

Cause: T1 302 Dual Port RAM test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4412 Minor Admin

Cause: T1 302 Static RAM test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4413 Minor Admin

Cause: T1 302 Self test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4414 Minor Admin

Cause: T1 302 Register test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4415 Minor Admin

Cause: T1 302 voice tap loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4416 Minor Admin

Cause: T1 302 Bus loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4417 Minor Admin

Cause: T1 302 Line interface loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4418 Minor Admin

Cause: T1 302 Relay loopback test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4419 Minor Admin

Cause: T1 302 Signalling test failed.

Impact: Some or all T1 spans on this node are faulty.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4420 Minor Admin

Cause: Result from T1 302 External loopback test.

Impact: T1 spans on this node are faulty failed.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4421 Minor Admin

Cause: T1 302 Span loopback test failed.

Impact: T1 spans on this node are faulty failed.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4422 Minor Admin

Cause: T1 302 Snake Loopback test failed.

Impact: T1 spans on this node are faulty failed.

Action: Replace T1 card. If this does not rectify the problem then replace the T1 Transition module. If the problem persists, consult the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for more information. If the problem still cannot be resolved, contact your Northern Telecom support organization.

NT: Investigate the SEER for hardware faults on the system since they may be the result of some other faulty hardware.

4423 Info Admin Info

Cause: Invalid test number provided to t1_diag program.

Impact: Diagnostics not complete.

Action: If testing via the DiagCntl utility, check parameters and try again. If the diagnostics fail, consult the *Trouble-locating and Alarm-clearing Procedures* guide (NTP 557-7001-503).

NT: If this problem occurs when running offline or starting diagnostics, there is potentially a memory corruption problem. Scan SEERs for any sign of corruption.

4430 Major Error

Cause: Could not release timeslots.

Impact: Further activities on this node may affected by timeslots that could not be released.

Action: Re-execute diagnostics to clear timeslots. If problem persist, contact your Northern Telecom support organization.

NT: It may be necessary to reboot the node. If the problem persists, try replacing the T1 cards.

4431 Minor Error

Cause: Too many interrupts received from diagnostics firmware.

Impact: Result information may be lost.

Action: Retry the test. If problem persist, consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503), for information regarding T1 diagnostics failure.

NT: Verify that all cards were replaced on that node. If the problem persists, contact your Northern Telecom development organization.

4432 Minor Error

Cause: Could not retrieve the diagnostic firmware file ID.

Impact: T1 diagnostics not competed.

Action: Contact your Northern Telecom support organization.

NT: Check if the T1D.Bin file exists in /1/T1. If not take necessary action to get file.

4433 Major Error

Cause: Error trying to change span state to Diagnostics.

Impact: Cannot perform any diagnostics.

Action: Verify that the T1 Card and Spans are out-of-service. Repeat test. If problem persists try rebooting the node.

NT: Contact your Northern Telecom development organization.

4434 Major Error

Cause: Error loading firmware into span.

Impact: If error loading diagnostics firmware then the diagnostics are not competed. If error loading T1 firmware then the span cannot be used to handle any calls.

Action: Check the return code provided and take necessary action. If problem persists, replace T1 card and execute diagnostics. If the diagnostics fail, refer to the *Trouble-locating and Alarm-clearing Procedures,* (NTP 557-7001-503), for information on diagnostics failure.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503).

4435 Major Admin

Cause: Request to test invalid memory size.

Impact: Diagnostics not completed.

Action: If the problem occurs when executing Startup or Offline diagnostics, retry the operation. Reboot the node if possible. If the problem persists, contact your Northern Telecom support organization.

NT: Look for possible memory corruption.

4436 Major Admin

Cause: T1 card memory test failed.

Impact: Some or all T1 spans are faulty.

Action: Replace T1 card and re-execute diagnostics. It diagnostics fail, refer to the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503).

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503).

4437 Minor Admin

Cause: Invalid register number provided.

Impact: Diagnostics not performed.

Action: If running startup or offline diagnostics, retry the operation. If the problem persists try rebooting the node. If this does not help, refer to the *Trouble Locating and Alarm Clearing Procedures*, NTP 557-7001-503 for information on T1 diagnostics failure.

NT: Check the SEER for any sign of memory corruption.

4438 Minor Admin

Cause: Invalid channel number provided.

Action: If running startup or offline diagnostics, retry the operation. If the problem persists try rebooting the node. If this does not help, refer to the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503) for information on T1 diagnostics failure.

NT: Check the SEER for any sign of memory corruption.

4439 Minor Admin

Cause: Could not acquire timeslot to perform diagnostics.

Impact: Diagnostic not performed.

Action: Retry test. If problem still exists then may need to reboot node to release these timeslots.

4440 Major Error

Cause: Could not map T1 card memory.

Impact: Unable to execute any diagnostics.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Check the previous SEERS for any sign of memory problems on the system. If none, contact your Northern Telecom development organization.

4441 Info Admin

Cause: Secondary span not specified.

Impact: Diagnostics not completed.

Action: This problem should only occur in the manufacturing flow, if so, specify the secondary span and re-start the diagnostics.

NT: If the problem occurs when running starting or offline diagnostics, verify that the TID.AREA program or system is the correct version for the software load.

4442 Major Error

Cause: Error writing timeslots for diagnostics.

Impact: Diagnostics not completed. Some or all of the T1 spans may be faulty.

Action: Refer to the *Card Replacement Procedures* manual, NTP 297-7001-502 and replace the T1 card. If the problem persists, contact your Northern Telecom support organization.

NT: Verify that the 68K card and Transition Module for the T1 has been replaced. If the problem persists, contact your Northern Telecom development organization.

4443 Critical Error

Cause: Error acquiring firmware FID.

Impact: Some or all T1 spans are not functional.

Action: Execute diagnostics again. If the problem persists, contact your Northern Telecom support organization.

NT: By using the MD utility, check that the T1.BIN file exists in the /1/T1 directory.

4444 Critical Error

Cause: Error loading firmware.

Impact: Firmware not loaded for specified span. These spans are not functional.

Action: Execute diagnostics again. If the problem persists, contact your Northern Telecom support organization.

NT: Us the MD Utility to check that the T1.BIN file exists in the /1/T1 directory and that the file is the correct version (that is, not patched). Try replacing the T1 card by following the procedures outlined in the *Card Replacement Procedures* manual, NTP 297-7001-502.

4445 Major Error

Cause: Unexpected interrupt received from span.

Impact: Some or all the T1 spans are marked faulty.

Action: Consult the *Trouble-locating and Alarm-clearing Procedures*, (NTP 557-7001-503) for T1 diagnostic failure information.

NT: If all relevant cards on the node were replaced and the problem persists, contact your Northern Telecom development organization.

Class 45 T1 Loader

The T1 Loader is used to load S-record files to the 68302 SRAM. To accomplish this the loader requires the service of the T1 bootstrap file.

T1 loader errors generally reflects fault in the hardware, the bootstrap file or the file to be loaded.

Errors encountered in the loader task may prevent the T1 span from being loaded and may even cause the node to crash, depending on the severity of the error.

4500 Critical Error

Cause Cannot locate T1 Loader task.

Impact: Current Loader task request will not be processed.

Action: If error persists disable and re-enable node specified in SEER. If problem still exists contact your Northern Telecom support organization.

NT: Check that the T1LC overlay exists in the startlist for this node.

4501 Major Error

Cause: Error tasking with the T1 Loader.

Impact: Current Loader request will not be processed.

Action: Disable and re-enable the node. if error persists contact your Northern Telecom support organization.

NT: Check that the T1LC overlay exists in the startlist for this node.

4502 Critical Error

Cause: T1 Loader memory tests indicate that the DPRAM is faulty.

Impact: Span will not be loaded.

Action: Use T1 Diagnostics to determine memory failure and replace the necessary hardware. If diagnostics cannot detect a hardware fault, try reloading span. If problem still exists try changing the T1 card. If all fails, contact your Northern Telecom support organization.

NT: If all relevant cards (T1, T1 Transition Module and 68K) have been replaced, contact your Northern Telecom development organization.

4503 Critical Error

Cause: Loader polling of Bootstrap timed out.

Impact: Span will not be loaded.

Action: Try disabling and enabling node. If problem still exist, try the following:

1. Run T1 diagnostics to determine hardware sanity.
2. If diagnostics fail, replace the T1 card using the *Card Replacement Procedures* manual, NTP 557-7001-502.
3. If problem still exists, contact your Northern Telecom support organization.

NT: Check if the correct bootstrap file exists on disk. Use the MD utility to check /1/T1 for T1BT.BIN

4504 Critical Error

Cause: BootStrap memory tests indicate that the 68302 SRAM is faulty.

Impact: Span will not be loaded.

Action: Run T1 Diagnostics to determine memory failure and replace necessary hardware. If no hardware fault can be detected by diagnostics try the following:

1. Reload span.
2. Change hardware (T1 card).
3. If problem still exists, contact your Northern Telecom support organization.

NT: If all relevant cards (T1, T1 Transition Module and 68K) have been replaced, contact your Northern Telecom development organization.

4505 Critical Error

Cause: T1 Bootstrap detected checksum error in the T1 firmware s-record placed on DPRAM by T1 Loader.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4506 Critical Error

Cause: 68302 Bus error detected by BootStrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4507 Critical Error

Cause: 68302 interrupt detected by BootStrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4508 Critical Error

Cause: 68302 addressing detected by BootStrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4509 Critical Error

Cause: Illegal instruction reported by 68302 Bootstrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4510 Critical Error

Cause: Invalid status received from Bootstrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4511 Critical Error

Cause: Unexpected status received from Bootstrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4512 Critical Error

Cause: Incorrect status2 received from bootstrap.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4513 Critical Error

Cause: Character in S-Record not is not a digit as expected.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

NT: Check if the correct T1 firmware file exists on disk.

4514 Critical Error

Cause: Cannot open file on disk to load span.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4515 Critical Error

Cause: Cannot find record 1 in S-record file on disk.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4516 Critical Error

Cause: Cannot read S-Record file on disk.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4517 Critical Error

Cause: File is not of expected S-Record format.

Impact: Span will not be loaded.

Action: Try disabling and enabling the span. If problem still exists contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4518 Major Error

Cause: Invalid span number received.

Impact: Task request will not be processed.

Action: Depending on what request this is occurring, a node disabling/enabling may be necessary. If problem continue contact your Northern Telecom support organization.

NT: Determine, based on the occurrence of the SEER and on other SEERs, which task is passing the invalid span number. Check for possible data corruption also verify HWDB span TN.

4519 Major Error

Cause: A load request was made with the invalid Load type.

Impact: Request will not be processed.

Action: Disable and enable the node specified in the SEER. If problem continues, contact your Northern Telecom support organization.

NT: Determine, based on the occurrence of the SEER and on other SEERs, which task is requesting the invalid load type. Check for possible data corruption.

4520 Critical Error

Cause: Could not get bootstrap FID. File may not exits.

Impact: Span will not be loaded.

Action: Disable and enable the Node. If the problem persists, contact your Northern Telecom support organization.

NT: Check that the correct T1 firmware and bootstrap files exist on disk. (Use the MD utility to check /1/T1 for T1.BIN and TIBT.BIN).

4521 Minor Error

Cause: Could not close open file.

Impact: A SEER may be received later indicating that file was not closed.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: If possible, use a utility to close the file. If the problem persists and is serious, then it may be necessary to reboot the node.

4522 Minor Error

Cause: Loader request could not be performed with the span in its current state.

Impact: Current request will not be processed.

Action: Action depends on span state. If span state is faulty then run diagnostics on corresponding T1 card after disabling it. If problem persists, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT: Investigate SEERs from node bootup. Check for class 47 SEERs.

4523 Critical Error

Cause: T1 Loader could not register.

Impact: No T1 service available on node.

Action: Try disabling and enabling the node. If problem continues, contact your Northern Telecom support organization.

NT: Check if this is a capacity problem.

4524 Critical Error

Cause: Unable to allocate buffer to load T1 firmware.

Impact: Span will not be loaded.

Action: Try disabling and re-enabling the T1 card affected by the problem. If the problem persists, try disabling and re-enabling the node. If this does not help, contact your Northern Telecom support organization.

NT: Check for a memory problem on this node.

4525 Critical Error

Cause: Bootstrap cannot interpret record placed on DPRAM.

Impact: Span will not be loaded.

Action: Try disabling and re-enabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4526 Critical Error

Cause: Timeout waiting for firmware to respond with span-awake information.

Impact: Will not be able to load span.

Action: Try disabling and re-enabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4527 Critical Error

Cause: Expecting only one message (Span awake) from firmware, however more messages were received.

Impact: Span will not be loaded.

Action: Try disabling and re-enabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).

2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4528 Critical Error

Cause: Firmware indicate span-awake failure.

Impact: Span will not be loaded.

Action: Use T1 diagnostics to test hardware and replace T1 card if faulty. If no hardware fault can be detected, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4529 Critical Error

Cause: Expecting only one message from firmware but received more.

Impact: Span is marked faulty.

Action: Try disabling and re-enabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4530 Critical Error

Cause: Firmware report failure in Span Setup. It is probably a hardware fault.

Impact: Span is not functional.

Action: Try disabling and re-enabling the T1 card affected by the problem. If problem continues, try disabling and enabling the node. If this does not help, contact your Northern Telecom support organization.

NT:
1. Check if the correct T1 firmware file exists on disk (use the MD utility to check the /1/T1 for T1.BIN).
2. Execute diagnostics on T1 card.
3. Replace T1 card by following the *Card Replacement Procedures* manual, NTP 557-7001-502.

4531 Minor Error

Cause: Link Handler attempted to login into span more than once.

Impact: None.

Action: None.

NT: None.

Class 46 T1 Communication

The T1 communication task is responsible for processing all T1 card interrupts, transmitting and receiving telephony messages and managing the T1 voicetap.

All message and time slot requests are queue for the relative T1 span link handler/firmware.

T1 Comm errors may cause loss of telephony messages or timeslots and may result in a node crash for fatal errors.

4600 Critical Error

Cause: Cannot locate T1 Comm Task.

Impact: Current comm task request will not be processed.

Action: If problem persist, disable and re-enable the node. If this does not help contact your Northern Telecom support organization.

NT: Verify startlist for TILC on the problem node. If the node is not running, refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503) for information on how to recover the node.

4601 Critical Error

Cause: Error tasking with T1 Comm task.

Impact: Current comm task request will not be processed.

Action: If problem persist, disable and re-enable the node. If this does not help contact your Northern Telecom support organization.

NT: Verify that the node is running. If the node is not running, refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503) for

information on how to recover the node. If the problem persists, contact your Northern Telecom development organization.

4602 Critical Error

Cause: Error mapping T1 card configuration space.

Impact: T1 node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4603 Critical Error

Cause: Error mapping T1 card I/O space.

Impact: T1 node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4604 Critical Error

Cause: Error mapping T1 card shared memory space.

Impact: T1 node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4605 Critical Error

Cause: T1 voice tap stuck in reset state.

Impact: T1 node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4606 Critical Error

Cause: Internal voice tap fault detected.

Impact: T1 node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4607 Major Error

Cause: Connection memory queue is full.

Impact: Current timeslot request will be ignored.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4608 Major Error

Cause: Receive message queue is full.

Impact: Last message(s) received will be ignored.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4609 Critical Error

Cause: Receive message queue is corrupted.

Impact: If redundant span is equipped then switching will occur.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4610 Critical Error

Cause: Transmit message queue is full.

Impact: Last transmit request was rejected.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4611 Minor Error

Cause: Span is not in an appropriate state for current request.

Impact: Request is not processed.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4612 Minor Error

Cause: Link Handler did not register with T1 comm task.

Impact: Link Handler requests not processed.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4613 Critical Error

Cause: Parity error writing to connection memory.

Impact: TSW fault is report and card switching will occur.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4614 Critical Error

Cause: Access error writing to connection memory.

Impact: TSW fault is report and span switching will occur.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble Locating and Alarm Clearing Guide* (NTP 557-7001-503).

4615 Critical Error

Cause: TSW queue is corrupted.

Impact: TSW fault is report and span switching will occur.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4616 Major Error

Cause: Transmit message size is invalid.

Impact: Transmit request is not processed.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4617 Major Error

Cause: Receive message size is invalid.

Impact: Receive request is not processed.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4618 Major Error

Cause: TSW interrupt received but no interrupt pending bit is set.

Impact: No impact.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4619 Major Error

Cause: T1 interrupt received but no interrupt pending bit is set.

Impact: No impact.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4620 Critical Error

Cause: T1 comm task could not register.

Impact: Node cannot be used.

Action: Try disabling and re-enabling the node. If problem still exists, contact your Northern Telecom support organization.

NT: Check system capacity limits.

4621 Critical Error

Cause: Span DPRAM does not exist.

Impact: Span is declared faulty.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4622 Critical Error

Cause: TSW stuck in initialization.

Impact: Node is declared faulty.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4623 Critical Error

Cause: Fault in requesting timer.

Impact: Node cannot be used.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4624 Critical Error

Cause: Connection memory queue timeout occur.

Impact: Hardware is declared faulty.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4625 Critical Error

Cause: Cannot locate T1 card configuration space.

Impact: Node cannot be used.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4627 Minor Error

Cause: Message received from a span to which the Link Handler has not logged in.

Impact: Message will not be processed immediately.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4628 Major Error

Cause: TSW fault interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.

Impact: Node is faulty.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4629 Major Error

Cause: PLL interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.

Impact: Node is faulty.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4630 Critical Error

Cause: Could not perform diagnostics time slot requirements.

Impact: Span is marked faulty.

Action: Refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4631 Critical Error

Cause: WatchDog timeout has occurred for the specified span.

Impact: If redundancy exists, then switching will occur. Span is reset and reloaded.

Action: If the problem persists, check the T1 firmware and hardware.

4632 Critical Error

Cause: Time switch queue corruption.

Impact: All spans will be marked faulty.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4633 Critical Error

Cause: T1 Timewatch audit routine has detected a mismatch.

Impact: Possible timeslot corruption. May be double timeslot noise.

Action: If problem persist, disable and re-enable the node. If the problems continues to occur, refer to the *Card Replacement Procedures* guide (NTP 557-7001-501) and replace the T1 card.

NT: Refer to the *Trouble-locating and Alarm-clearing Procedures* (NTP 557-7001-503).

4676 Critical Error

Cause: Parameter string received by T1_Base program is invalid.

Impact: T1 node is not fully loaded.

Action: Disable the node. If the problem persists, contact your Northern Telecom development organization.

NT: Check the parameter string in the startlist. On a regular system, no parameter is expected by the T1LC program (parameters may be used for debugging purposes). Remove any unwanted parameters. The following are associated return codes:

34 No external references selected on this T1 card. This is only a problem if an external reference was expected to be on this card.

35 Previous external reference is overwritten by this selection. This is only a warning to indicated that there was a previous reference selected.

36 The hardware register did not retain the external span selected. This indicates that the problem is most likely a hardware problem.

37 Could not enable external referencing on card. This indicates that the problem is most likely a hardware problem.

4677 Major Error

Cause: Error initiating T1 Comm task.

Impact: Cannot use T1 node.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

4678 Major Error

Cause: Error initiating T1 Loader task.

Impact: Cannot use T1 node.

Action: Disable and re-enable the span. If the problem persists, disable and re-enable the node. If this does still not correct the problem, contact your Northern Telecom support organization.

NT: Contact your Northern Telecom development organization.

Class 47 T1 Link Handler (T1LH)

The functions of the T1 Link Handler (T1LH) are

- providing telephony signalling services to the application programs such as processing and answering an incoming call, making an add on call, conferencing and transferring a third party call, etc.
- presenting the T1 trunk as a single entity to the system for processing T1 trunk related maintenance operation such as disabling a T1-span, etc.

Software Architecture

The T1LH is composed of 5 different units:

1. The *Control module* is responsible for loading the firmware at the system initialization time and the initialization of the other modules.
2. The *Trunk module* is responsible for the maintenance operation of the span.
3. The *Channel module* co-ordinates with the other system programs to provide telephony services for the application. The channel module is not only required to take care of itself but also the 24 channels running on the T1-Span.
4. The *Timer module* is responsible for providing timing services for other modules.
5. The *Message Routing module* acts as a gateway to provide the communication between the T1LH and the lower layer software.

To classify these modules and channels the following numbering scheme is used in the design

- For the modules
  - 30 (Control Module)

  - — 31 (Trunk Module)
  - — 32 (Channel Module)
  - — 33 (Message Dispatcher)
  - — 34 (Timer Module)

- For the channels
  - — The Channel number will be numbered from 0 to 23, where 0 represents the first channel and 23 represents the 24th channel.

Trunk Module

Associated with the module, a set of commands are supported by the trunk module in order to satisfy the maintenance operation. The possible commands are:

Trunk Command Code	Description
TrunkIdle	No command is currently active
S_InServ	Startup to InServe mode
S_Stdby	Startup to Standby mode
S_Disable	Startup to disable Offline mode
INSV	Enable a trunk + InService option
Standy	Enable a trunk + Standby option
Disable	Put a trunk out of service
Shutdown	Put a trunk and channels OOS
PSwitch	Polite switching
BSwitch	Brute force switching
OSwitch	Switch a trunk to online mode
DiagPass	Diagnostic on a faulty span is over, reset to OOS
Query	Query the current status of the module
RefMaster	Enable span to provide timing reference
RefSlave	Disable span to provide timing reference
DevDied	Shutdown a particular channel

Under normal working conditions no SEERs should be generated by the trunk module; however, if SEERs do get generated this is usually because of an unexpected event or an operation failure. The following is a list of all possible events with which one could decode and understand the SEERs generated by the trunk module.

Trunk Event Code	Description
E_S_INSV	StartUp to the InService mode
E_S_STDY	StartUp to the Standby mode
E_S_DIS	StartUp to the Disable Offline mode
E_INSV_ENABLE	Enable a trunk + InService option
E_STDY_ENABLE	Enable a trunk + Standby option
E_DISABLE	Put a trunk out of service
E_SHUTDOWN	ShutDown a trunk including channels
E_PSWITCH	Polite switching
E_BSWITCH	Brute force switching
E_OSWITCH	Switch a trunk to online mode
E_MSG_ACK	Maintenance message
E_UN_MSG	Unsolicited Maintenance message
E_HWFAULT	Hardware Fault detected by the T1 loader
E_TIMEOUT	Timeout occurs
E_IDLE	Report Channel goes idle
E_LOGOUT	Report Channel logout
E_DIAGPASS	Diagnostic on a faulty span is over
E_QUERY	Query the current status of the trunk module
E_REFMASER	Enable span to provide timing reference
E_REFSLAVE	Disable span to provide timing reference
E_DEVDIED	Shutdown a channel

The Trunk Module can also have different states.

Trunk Status	Description
Startup	a transient state in the T1 that indicates the TILM is bringing up the span
InService	The span is running in an active state
OutOfService	The span is disabled
Standby	The span is ready to go to the InService state on request
Faulty	Faults are detected in the span
AlarmActive	A red and/or yellow alarm is detected

Channel Module

The main concept in the Channel module is its set of commands which directly indicates which operation is currently working on by a particular channel. The following is the lists of commands supported by the Channel module.

Channel Command Code	Description
BaseCall	Originate a Base Call
AddOnCall	Originate an Add on Call
InitXferCall	Initiate a call transfer sequence
Transfer	Complete to transfer a Call
Conference	Conference a 3-party Call
Reconnect	Reconnect a Call
Disconnect	Disconnect a Call
Answer	Answer a Call
MainteEnable	Maintenance enable a channel
MainteDisable	Maintenance disable a channel
AgtEnable	Agent enable (enable a channel)
AgtDisable	Agent disable (disable a channel)
IncRing	Incoming call initiated with a ring
IncPCI	Incoming call initiated with the SMDI PCI message
IncIdle	Channel is sevicing an incoming call

Channel Command Code	Description
OutIdle	Channel is servicing an outgoing call
Idle	Channel is idle

Each command is composed of a sequence of primitives and these primitives pin point the current operation of the command. The following is the list of primitives used to construct the above commands.

Primitive Code	Description
1	Send a telephony message to firmware
2	Use DSP port to dial a number
3	Send a MSP to application

Like the trunk module, there is a set of events to drive the operation of the Channel module. The following are the list of events:

Channel Event Code	Description
E_TELE_ACK	Telephony acknowledgement message
E_FAR_DISC	Far end disconnect
E_FAR_OFFHOOK	Far end ready for digits
E_RDYKEY	Set Ready Key from VSS
E_AGENT_REG	Agent login/logout cmd
E_INFO_LINK	SMDI Link up and down
E_CHAN_REG	GTI login/logout process
E_TIMEOUT	Timeout reported
E_SPCHPATH	Connected or Disc. a speech path
E_QUERY	Query the channel status
E_CALL_PROG	OutDialing acknowledgement
E_AGT_REPLY	Maintenance Cmd acknowledgement
E_SHUTDOWN	Shutdown Reg from Trunk Module
E_ORIG_BASE	Originate a Base call
E_ORIG_ADD	Originate an Add on call
E_ORIG_XFER	Originate an InitXfer call
E_TRANSFER	Transfer a call

Channel Event Code	Description
E_CONFERENCE	Conference a call
E_RECONNECT	Reconnect a call
E_DISCONNECT	Disconnect a call
E_ANSWER	Answer a call
E_MAINTE_CMD	Maintenance Operations
E_INC_RING	Far end ringing
E_INC_PCI	PCI message from far end

Other acronyms used by the Channel Module indicate the status of calls in progress.

Call Progress Message	Description
VoiceAns	Call is answered by voice
Ringing	Call is still ringing
Busy	Call is busy
Re-order	Re-order tone is detected from switch
No Dial tone	No dial tone is detected from the switch

Other Modules

The Control module, Timer module, and the Message Dispatcher module have only a very limited operation. The SEERs generated by these modules are self-explanatory.

General Format

The format used is:
'SEER Code' [Span Number:Module or Channel Number] SEER text + location code
For example:

- 4731 [0:30] Fails to Comm with [T1Loader:FFFFFFFFFFFFFFFF:4602] 1-13-3-1

4731 is the SEER code used by the T1LH; [0:30] implies span 0, Control Module 30.

This SEER means the Control Module in Node 13, Card 3, Span 1 fails to communicate with the T1Loader with the task ID FFFFFFFFFFFFFFF

(which means not available) with error code 4602 returned from the T1Loader.

4700 Info System

Cause: System boot-up; trunk being enabled/disabled; undesired events occurred.

Impact: If the SEER indicates a Faulty or Alarm mode, this implies that the span is no longer able to provide any services.

Action: If the span is Faulty or Alarm, service should be switched to the redundant span automatically if redundant span is available. Otherwise, check the cabling and run the offline diagnostic for the span.

NT: Run offline diagnostics and replace the card.

4701 Info System

Cause: A summary indicates the failure of the T1LH in starting up the span

Impact: The span is no longer able to provide any services.

Action: Check the surrounding class 47 SEERs to obtain more information.

NT: None.

4702 Info Error

Cause: When the T1LH tries to download the firmware, the lower layer (T1LH) indicates that the span is not in the expected state. Put the span into the standby state.

Impact: The span is no longer able to provide any services.

Action: Switch to the redundant span.

NT: Do an offline diagnostic on the corresponding T1 span. If necessary, replace the span.

4703 Info Error

Cause: The T1LC fails to load the firmware.

Impact: This span is no longer able to provide any services.

Action: Switch to the redundant span and run offline diagnostics.

4704 Critical Error

NT: Check the integrity of the binary file holding the firmware and replace if necessary.

Cause: T1LH failed to fetch the binary file for holding the firmware.

Impact: All T1 spans are no longer in service.

Action: Contact your Northern Telecom support organization.

NT:
1. Check if the build is done properly.
2. Check the integrity and existence (/l/t1/t1.bin) of the file and replace if necessary.

4705 Info Error

Cause: T1LH fails to reset the span when the T1LH is requested to take the span to the InService mode.

Impact: The span cannot go to the InService Mode. The redundant span will take over automatically if it is available.

Action: Try again or check the cable. Run offline diagnostics and replace the card if necessary. If error persists, contact your NT support organization.

NT: Reboot the TIFN node.

4706 Info Error

Cause: T1LH failed to reset the Span hardware-wise.

Impact: Switching to the Redundancy span fails.

Action: Try again. Run offline diagnostics. If error persists, contact your NT support organization.

NT: Reboot the corresponding TIFN.

4707 Info System

Cause: T1LH failed to release all the time slots assigned to its 24 channels.

Impact: If the T1LH comes up from a system boot-up, there should be no indirect impact.

Action: Run an offline diagnostic on the card.

NT: Reboot the corresponding TIFN.

4708 Info System

Cause: The Trunk module keeps a 10-bit register to keep track of the operating status of the span. If there is any change in the bitmap this SEER is generated to report the changes.

"RedAlarm" means a loss of signalling from the Far end (DMS or channel bank).

"YellowAlarm" means that the Far end is experiencing red alarm and is transmitting yellow alarm to MSM. This is common after T1 switch and the yellow alarm is ignored, in this case, by the MSM.

"BlueAlarm" is sent by the Far end to signal its problem, and the MSM reports the condition via SEERs. The administrator should investigate the cause of this in the Far end equipment. If this alarm persists, the MSM will likely detect loss of frame which will cause the MSM to report RedAlarm. This, in turn, will cause the software to switch link.

The following terms are used in the SEER output.

SEER Term	Description
Red Alarm	RedAlarm(Critical)
Yellow Alarm	YellowAlarm (Critical)
Blue Alarm	BlueAlarm (Minor)
Bipolar Violation	Bipolar Violation OverFlow (Minor)
FrameBitErr	Framing Bit Errors (Minor)
Signal Quality	Signal Quality Drop below satisfactory standard. (Minor)
T1 Clock Slip	T1 Clock Slip below satisfactory standard. (Minor)
Hardware Fault	Firmware reported hardware fault detected. (Critical)
Software Fault	T1LH detected fault in the lower layer component and report no longer be able to operate any more. (Critical)
Span WatchDog Timer	T1 Span WatchDog timer expired (Critical)
Voice Tap Fault	The Voice Tap experiences a hardware problem. (Critical)
PhaseLockLoop Timer	Phase-lock-loop Watch Dog timer expired. (Critical)

Impact: If the error is "Critical", the span is no longer available for services. Otherwise, span is still operating as normal but with degradation.

Action: For Critical errors, run OOS diagnostics and if necessary replace the card. For Blue alarm, check the terminal equipment or the channel bank. For Bipolar violation overflow, Framing bit errors, excessive slip, or poor signal quality, check the configuration. (that is, line code and source of the timing reference on both sides.)

NT: Same as Action. Reboot the TIFN if necessary.

4710 Info System

Cause: T1LH failed to disconnect all the outstanding calls when the span experienced a change of the state from InService to Standby/OOS/Faulty/Alarm.

Impact: The current services will not be shutdown properly.

Action: Check if the particular channel has been unloaded already. If this is the case, no action is required. However, if switching to the redundant span is performed, disable and enable the faulty channel again.

NT: Disable the problem span.

4711 Info System

Cause: The T1LH receives calls in any states other than the “InService” state.

Impact: Call will not be presented to the upper layer programs.

Action: If disabling or switching taking place, ignore. Otherwise disable the channel on the DMS side to prevent further interruptions.

NT: None.

4712 Info Error

Cause: TILH fails to enable/disable a span to provide timing reference.

Impact: System may be running without a timing reference or multiple timing references.

Action: The system will eventually recover itself. If the problem persists, disable and re-enable the span and run OOS diagnostics.

NT: None.

4713 Info Error

Cause: TILH fails to check if the span is providing timing reference or not.

Impact: System may be running without a timing reference or multiple timing references.

Action: The system will eventually recover itself. If the problem persists, disable and re-enable the span and run OOS diagnostics.

NT: None.

4716 Info Debug

Cause: T1LH Internal Software problem.

Impact: No direct user impact.

Action: None.

NT: None.

4717 Info Error

Cause: The T1LH tried to execute a particular command for a channel but failed on timing out a particular primitive.

Impact: Has to wait for the far end to disconnect the call to regain the control of the faulty channel.

Action: If the problem persists, disable and re-enable the span. Run offline diagnostics.

NT: None.

4718 Info Error

Cause: The T1LH tries to execute a particular maintenance command but fails on timing out a particular message sent to the firmware.

Impact: The current maintenance will be failed and span will got to faulty state.

Action: Run an offline diagnostic to the span. If the problem persists, call your Northern Telecom support organization.

NT: Reboot the corresponding TIFN.

4719 Info Error

Cause: The T1LH fails to either get a ringing or a SMDI message within the timeout interval.

Impact: If T1LH fails to get Ringing/Seizure, the call may be dropped before the DMS presents the call to the MSM. If T1LH fails to get SMDI message, the default SMDI message is used.

Action: If problem persists, check the cabling for both the T1 and SMDI link.

NT: Examine the hardware database to check the consistency between the T1 channels, the SMDI configuration. Also check the configuration of the UCD agent in the DMS.

4725 Info System

Cause: The T1LH received an unexpected message from the firmware.

Impact: No user impact.

Action: If problem persists, do an offline diagnostic to the span. There may be a memory problem.

NT: Reboot the TIFN node.

4726 Info Error

Cause: The T1LH failed to retrieve a message from the firmware via the T1COMM.

Impact: The TILH internal state may not be consistent with the actual state of the line. Depending on the circumstances, the call may be dropped by the application.

Action: Disable the span and enable it according to the instructions in Chapter 3 of the *Card Replacement Procedures* (NTP 557-7001-502). If the problem persists, do an offline diagnostic to the span. There may be a memory problem.

NT: Reboot the TIFN node.

4727 Info Debug

Cause: The T1LH failed to communicate with the firmware and dumped the message to indicate the missed message.

Impact: None.

Action: Check the surrounding SEERs for additional information. If unclear, contact your Northern Telecom support organization.

NT: None.

4728 Info Debug

Cause: Debugging SEERs.

Impact: None.

Action: None.

NT: None.

4730 Info Error

Cause: The T1LH failed to register with a particular task during the startup.

Impact: The span will be unable to provide any services.

Action: Disable the span and re-enable it according to the instructions in in Chapter 3 of the *Card Replacement Procedures* (NTP 557-7001-502).

NT: Check the SEER to identify with which task the T1LH fails to register. Also, check the surrounding SEERs to see if there are any related SEERs for the failed tasks. If unclear, contact your Northern Telecom support organization. Reboot the corresponding TIFN if necesary.

4731 Info Error

Cause: The T1LH fails to communicate with other task.

Impact: If the failed task is TICOM then the span is no longer be able to provide any services, otherwise, the current command has failed. The T1LH will try to correct the failure.

Action: If the failed task is TICOM, disable and re-enable the span, if not, ignore the problem, the TILH will recover the problem. If the problem persists, contact your Northern Telecom support organization.

NT: If the problem persists, run OOS diagnostics and reboot the TIFN.

4735 Info System

Cause: The T1LH received an event not expected with the current state and operating commands.

Impact: The session may be dropped or the system will have to wait for the user to hang up in order to regain control of the channel.

Action: Disable and re-enable the channel.

NT: None.

4736 Info System

Cause: The firmware complains the message is not valid currently.

Impact: The command will be failed and the channel will be recovered once the user disconnects the current call.

NT: None.

4737 Major Error

Cause: The firmware detected a Red or Yellow Alarm and reported to the T1LH.

Impact: The span will be out-of-service.

Action: Check the corresponding T1 cable or run an offline diagnostic to the span that reported the alarm.

NT: Check the configuration between the MSM and the channel bank.

4738 Major Error

Cause: The T1LH failed to perform some critical operation with the lower layer software.

Impact: The span will go to a faulty state. The redundant T1 span should take over.

Action: Check the surrounding SEERs for additional information or run an offline diagnostic to the faulty span.

NT: If necessary, reboot the TIFN.

4739 Major Error

Cause: The lower layer software detected a hardware fault and reported it to the T1LH.

Impact: The span will go to the faulty state. The faulty components are logged in a 16 bit register and presented as decimal values:

- Span failure 1
- Static RAM 2
- Dual Port RAM 4
- Framer 8
- Line Driver 16
- Signalling Circuit 32
- Receiver Buffer 64
- 68K Sanity 128
- T1 Transition Module 256

The presented value can be the sum of the above values. For example, if the Static RAM and the Line Driver have a problem, the value is 2 + 16 = 18.

Action: Run an offline diagnostic to the faulty span. If necessary, replace the card.

NT: Reboot the TIFN if necessary.

4740 Info System

Cause: T1LH tried to communicate with a task that was registered with T1LH but no longer exists.

Impact: That channel is out-of-service temporarily until the application comes back again. Also, more similar SEERs may come out.

Action: No action is required. When the application comes back the application will recover the channel.

NT: None.

4741 Info Debug

Cause: T1LH detected the channel number is out of range.

Impact: Debugging SEERs

Action: None.

NT: None.

4744 Info Error

Cause: The T1LH fails to recover itself in an error situation.

Impact: The command will be failed and the channel will be recovered once the user disconnect the current call.

Action: Check the surrounding SEERs for additional information and work according to their Action items.

NT: Reboot the corresponding TIFN.

4745 Info Error

Cause: The T1LH fails to set up the time slot for the application.

Impact: Application may terminate itself. Channel will be recovered once the user disconnects.

Action: Check the surrounding SEERs for additional information and work according to their action items.

NT: Reboot the corresponding TIFN.

4746 Info Error

Cause: T1LH failed to use the Voice Port Handler to complete the out dialing activities.

Impact: The command indicated in the SEER has failed and the channel will go on hook.

Action: If the SEER indicates no dial tone, check the corresponding VPH SEER. This may be either a bad channel connection or DSP problem. This can be verified further by disabling and enabling the problem channel to see if the failure is consistent. If the SEER indicates Re-order and the current command is Maintenance enable/ disable or Agent enable/ disable, check the agent login/ logout code datafilled in the hardware database. If error persists, contact your Northern Telecom support organization.

NT: Switch to the redundant link to see if the problem still exists. If it does not, the problem is with the 68K or T1 card on the original node. Replace the card following the procedures outlined in the *Card Replacement Procedures* manual (NTP 557-7001-502).

4747 Info Admin

Cause: The line is not configured properly.

Impact: The outgoing call or DMS agent login/logout action will fail. The system will retry.

Action: Make sure the interface type between the channel bank and the switch is the same.

NT: Run diagnostics on the lines card in the DMS and the channel bank.

Class 48 Diagnostic Control (DC)

Introduction

Diagnostic Control (DC) provides the high level interface to the diagnostic capabilities provided in Meridian Mail.

Diagnostic Control runs as a background task in a CLI (Command Line Interpreter) shell. Its job is to interpret the commands entered in the shell, and then command the PRM (Program Resource Manager) to load and execute diagnostic programs. During the execution of a diagnostic program it may give updated information to the diagnostic control. When it is finished, it will pass back result information.

This program is for the shop and should never be run by the customer. This class also includes the SEER codes for the stress test programs memhog, diskdog, busbang and testdiag.

Reports

4801 Info Admin

Cause: Cannot register the task ID in the name server.

Impact: Diagnostic programs cannot communicate with diagnostic control.

Action: Contact your NT support organization.

NT: Check the configuration of the system and restart diagnostic control.

4802 Info Admin

Cause: Most likely the number of instances of the program has reached its limit..

Impact: The job cannot load and has been deleted from memory.

Action: Contact your NT support organization.

NT: Check that the diagnostic program is on the startlist and that it has the correct number of instances. If a change to the startlist is necessary, reboot and start sysdiag again.

4803 Info Admin

Cause: A job was manually removed from the jobs list.

Impact: None.

Action: Contact your NT support organization.

NT: Check all nodes to find what program reported the nonexisting job, then take appropriate action.

4805 Info Admin

Cause: Memory for job storage has reached maximum capacity.

Impact: New job requested with ‘tst’ command has been ignored.

Action: Contact your NT support organization.

NT: Request job later when room becomes available, or send request to designer of controller to expand size of array PQueue.

4806 Info Admin

Cause: Diagnostic control cannot register with PRM.

Impact: Diagnostic control cannot restart jobs on nodes where 68K cards have been pulled out.

Action: Contact your NT support organization.

NT: If it is necessary to pull out 68K cards, check setup and configuration of system; then run sysdiag again.

4807 Info Admin

Cause: A 68K card had been removed and is now being reinserted.

Impact: Any diagnostic programs on that node that have crashed, are now being restarted.

Action: None

NT: None

4808 Info Admin

Cause: Abnormal sequence of node status information sent from PRM.

Impact: Diagnostic control cannot restart jobs on dead node, if a node has died.

Action: Contact your NT support organization.

NT: If 68K card(s) have been pulled out, reinsert them into slots one by one with a few second interval between reinsertions.

4810 Info Admin

Cause: Problems with internal management of jobs.

Impact: Data management of jobs may be corrupted.

Action: Contact your NT support organization.

NT: These problems should never occur. Contact designer of sysdiag code immediately.

4821 Info Admin

Cause: Testdiag is reporting.

Impact: None

Action: None

NT: None

4826 Info Admin

Cause: Memhog program is reporting.

Impact: If message indicates failure, memory is faulty or memory allocation error has occurred.

Action: Contact your NT support organization.

NT: If failure has occurred, replace 68K board on the node with a working board.

4831 Info Admin

Cause: Diskdog program is reporting.

Impact: If message indicates failure, diskdog could not start.

Action: Contact your NT support organization.

NT: Check SCSI cable and light indicator.

4841 Info Admin

Cause: Busbang program is reporting.

Impact: None. The only negative message is that the parameters are incorrect.

Action: None

NT: None

4845 Info Admin

Cause: Debug information. Used only in the test engineering environment.

Impact: None

Action: None

NT: None

4850 Info Admin

Cause: A diagnostic program has returned a result for which the pass count is less than the done count.

Impact: Diagcntl indicates a failure.

Action: Recycle the faulty card.

NT: Same as action.

Class 50 Toolkit Master (TKM)

Introduction

The Toolkit Master (TKM) subsystem acts as a resource manager for ACCESS applications that request a toolkit session to be started. It notifies ACCESS applications of disconnect and other session events, and maintains the status of TC and file transfer tasks.

Failures in the TKM can cause:

- failure to initiate ACCESS application sessions (applications will normally recover from these)
- time-outs (error 3) returned to the API function

A Class 50 SEER usually contains:

- the timing (synchronous or asynchronous)
- nature of the error
- task error numbers
- name of failed function

TKM SEERs are organized by report numbers into five groups:

1 01 – 09: TC-related errors

2 11 – 19: TK-related

3 21 – 29: errors in incoming requests

4 31 – 39: errors disconnecting

5 91 – 99: general failures

Reports

5001 Critical Error

Cause: TC task is not running and could not be located by TKM.

Impact: Usually, the application process will time out and the message destined for the application processor will be lost. Usually, the TC restarts automatically.

Action: If the error persists, contact your NT support organization.

NT: If AdminPlus is being used, change the link mode two or three times to restart the TC. If the link does not achieve file transfer mode then restart the processor. If ACCESS is being used wait five minutes and if synchronization is not achieved, restart the processor. To restart the processor please refer to the System Administration NTP.

5002 Critical Error

Impact: Usually, the application process will time out and the message destined for the application processor will be lost. Usually, the TC restarts automatically.

Cause: A synchronous task error has occurred while communicating with the TC.

Action: If this SEER occurs frequently, contact your Northern Telecom support organization.

NT: If AdminPlus is being used, change the link mode two or three times to restart the TC. If the link does not achieve file transfer mode then restart the processor. If ACCESS is being used wait five minutes and if synchronization is not achieved, restart the processor. To restart the processor please refer to the System Administration NTP.

5011 Major Error

Cause: A task error has occurred while sending a message to a TK task.

Impact: A message will probably be lost and the ACCESS application will probably time out and then recover.

Action: If it appears that this is causing a significant problem, contact your NT support organization. The ACCESS application may need to be restarted.

NT: Indicates that during an ACCESS application setup (m_Acquire) request the Toolkit (TK) component terminated, (likely crashed) during its initiation. There should be other SEERs from the VSS and the TK indicating why the voice service startup actually failed. If it appears that this is causing a significant problem, notify the

development organization. The ACCESS application will receive errors as well at this time and will normally attempt to restart the channel through another request.

5012 Info Debug

Cause: TK startup was refused by the TK task. The TKM probably tried to hand out a TK task which had already been allocated. This almost certainly implies a significant resource management failure in the TKM, VCA, VSS or TK.

Impact: Since this TK will reset itself and become available once again, the user impact is low. However, this SEER signifies a major software error.

Action: Contact your NT support organization. Note VCA, VSS, TK, TKM SEERs preceding this message.

NT: Indicates that, during an ACCESS application setup (acquire) request, the Toolkit (TK) component terminated because it was already active. For this to happen, a state error in either the VCA or the VSS component is the likely cause. If this is a persistent problem, restart the voice port DSP (i.e., disable and re-enable). This should clear up the problem. The ACCESS application will receive errors at this time and will normally attempt to restart the channel through another request.

5013 Minor Error

Cause: A tasking error occurred during ACCESS application startup.

Impact: An ACCESS application session command failed to be processed. Application will receive error code #3.

Action: If problem persists, contact your Northern Telecom support organization.

NT: Indicates that during the application session command (Acquire), a voice channel has failed due to an internal ACCESS program terminating prematurely. The various components should recover on their own. The ACCESS application will receive errors as well at this time and will normally attempt to restart the channel through another request. If the problem is persistent, you can restart all TKMs on the system using prm_pkg utility.

5014 Minor Error

Cause: The internal file transfer task which performs the data transfer could not be started.

Impact: Admin Plus cannot be used to download files.

Action: Contact your Northern Telecom support organization.

NT: Check configuration of system. Look for other SEERs from the FT_OM component.

5015 Minor Error

Cause: The toolkit server task could not be started because of a task error.

Impact: External Notification service feature of ACCESS is not available.

Action: Contact your Northern Telecom support organization.

NT: Check configuration of system. Look for other SEERs which may indicate the root cause.

5016 Minor Error

Impact: The ACCESS link will not start.

Cause: ACCESS serial cable is plugged into the wrong serial part on the VoiceMail side.

Impact: None.

Action: Refer to the chapter on Hardware Administration in the System Administration Guide NTP to check the dataport configuration.

NT: There should be one dataport defined for ACCESS in the hardware database for each node to which you connect an ACCESS link. Run hardware administration to see which ones are labelled ‘MMLink’.

5017 Critical Error

Cause: Either the system has not been configured correctly or the hardware database cannot be accessed.

Impact: If this happens on a node running Admin Plus software, Admin Plus will not function. If this error is reported on a node running the ACCESS link, the ACCESS feature will not function.

Action: Contact your Northern Telecom support organization.

NT: If the error number reported within the message is from the hardware database, please refer to that section in this NTP for more details. If the TKM has received an error from the VCA (Voice Channel Allocation Task) in its attempt to initiate an ACCESS session, the UNIX application connection to the system will fail. The most likely reason for a VCA error at this point is an improperly configured hardware database, not matching in definition with the voice cards installed.

5018 Problem Error

Cause: The TKM could not locate the TC task(s) on the node.

Impact:
1. The session will be aborted.
2. Upon recovery, if the TKM cannot locate (all) the TC tasks, the TKM will terminate and be restarted. This will be followed by SEER 5091. See SEER 5091.

Action: 1 and 2. If the problem persists, contact your NT support organization.

NT: The error (most likely an invalid configuration) must be resolved and the TKM must be restarted. See SEER 5001 in this class.

5021 Info Debug

Cause: The TKM received a message which was too short to be a valid request. The message is ignored.

Impact: The problem is minor unless it happens frequently.

Action: If the SEER appears frequently, contact your NT support organization.

NT: Indicates that the ACCESS application processor is sending invalid data packets to the Meridian Mail system. Since this is normally a software problem, contact the NT development organization. If it is a custom ACCESS work station, notify the organization supporting it.

5024 Info Admin

Cause: An optional feature was not enabled.

Impact: The ACCESS application is prevented from performing any Meridian Mail functions.

Action: The ACCESS application requires an optional feature of Meridian Mail which has not been enabled. Contact your NT support organization if you wish to obtain the optional feature.

NT: If the customer did not purchase the required Meridian Mail option, then the customer is not using the correct version of ACCESS software. If the customer purchased the required Meridian Mail option, the customer tapes do not contain the correct features. The correct tapes should be installed.

5031 Info Debug

Cause: The TKM received notification of a disconnect. In trying to pass this on to the application, the TKM failed to find the corresponding TK task in its internal table.

Impact: This SEER indicates only a possible problem.

Action: If this SEER appears frequently, contact your NT support organization.

NT: Evaluate the state of the Meridian Mail system. This would indicate a base-level problem, for example VSS locales crashing.

5050 Info Admin

Cause: The external notification server ACCESS application is operational.

Impact: None

Action: None

NT: None

5051 Major Admin

Cause: The external notification server ACCESS application is not functioning properly.

Impact: The host Email system which is monitoring users' voice mailbox status information will have lost some of the information.

Action: Contact your Northern Telecom organization responsible for supporting the ACCESS applications for External Notification.

NT: The ACCESS application monitoring the Email status of MM has terminated or is no longer communicating with Meridian Mail. The ACCESS serial link may be down. If it is not down then the problem is with the ACCESS application or system. If the ACCESS link is down, you can check to ensure that it is still plugged in.

5052 Minor Error

Cause: An external notification message could not be passed to the ACCESS application due to a software error.

Impact: The ACCESS application will not necessarily know that the information has not been sent. In the case where the application is attempting to execute an ACCESS function, the application will receive error #3 indicating a TIMEOUT has occurred.

Action: None.

NT: If the error is seen, the TC task could be down or out of communication buffers. Run the ACCESS diagnostic tool. If TC is down or is not synchronized, and remains in this state for longer than 10 minutes, take the action shown in the NT category of SEER 5001.

5053 Minor Error

Cause: The ACCESS application command attempting to read or write a mailbox has failed.

Impact: The ACCESS application will receive error #111 indicating command failure due to an MM problem.

Action: Verify if the mailbox account can be viewed via the administration console and can be accessed. If problem persists contact your Northern Telecom support organization.

NT: This is likely due to a corrupted mailbox on the system. Check for other SEERs appearing at about the same time as this SEER because this problem will only occur when a mailbox is accessed. If problems persist, restart the TKM on the node where this error is reported using prm_pkg. The voice mail status for this mailbox will not be sent to the Email system.

5054 Minor Admin

Cause: The toolkit server failed to start because a system problem was encountered.

Impact: No external notification services via ACCESS are available at this time.

Action: Contact your Northern Telecom support organization.

NT: Could only happen at system load time or when the TKM is reloading. It does not happen while the system is running. The actual SEER produced will contain additional information (that is, the SEER number from the base component in which the error occurred).

5091 Critical Error

Cause: A fatal error has occurred in the TKM. The exact error is shown in the message.

Impact: TKM will terminate. ACCESS will be unavailable.

Action: Contact your Northern Telecom support organization.

NT: The error (most likely an invalid configuration) must be resolved and the TKM must be restarted. See SEER 5001 in this class.

Class 51 Voice Toolkit (TK)

Introduction

The Voice Toolkit (TK) is the component that performs API functions invoked by other ACCESS applications such as IVR that run on applications processors connected by the Meridian ACCESS link.

A SEER normally indicates that the ACCESS application executed a command that failed to complete because of system error.

Impact is minimal. However, if any of these SEERs persist, contact your NT support organization.

A Class 51 SEER contains:

- command that failed
- return code (which can be checked in the appendix to this manual, and may provide more specific information)

Reports

5101 Minor Error

Cause: A system error was encountered causing the command executed by an ACCESS application to fail.

Impact: In the majority of cases, the ACCESS application will receive an error code (usually “111”, which means command failure).

Action: If error persists, contact your NT support organization.

NT: The actual system error encountered by the TK will be present in the SEER. Please follow any corrective action necessary for that SEER number. If the error persists, contact your Northern Telecom development organization.

5104 Major Admin

Cause: An incoming call has arrived for the IVR DN displayed, but no ACCESS application is driving the channel.

Impact: The caller will be transferred to the Revert DN. If no Revert DN is specified, the caller will hear the following message: "That service is unavailable at this time. Please try again later. Goodbye."

Action: Verify that the ACCESS application using this IVR channel is functioning correctly. If you suspect a channel problem, disable the channel and contact your Northern Telecom support organization.

NT: Notify the development organization responsible for the UNIX application.

5105 Major Admin

Cause: A switch–back has occured from an unsupported service. Supported services are Voice Messaging (MMUI) and Hospitality Staff Voice Messaging.

Impact: The call will be dropped and the channel will be released. The TK, started as a result of a StartTK command from the VSS, will terminate. No active ACCESS application handled the call since the channel was under the control of the service that was switching back at the time.

Action: Your Meridian Mail administrator should verify that the service switched to by ACCESS is, in fact, Voice Messaging (MMUI) or Hospitality Staff Voice Messaging.

NT: No service other than Voice Messaging (MMUI) or Hospitality Staff Voice Messaging should be capable of switching back to ACCESS. Switch–back from an unsupported service may indicate a design flaw or configuration error. The SEER should also report the customer number, the called DN, and the Voice Service Shell ID of the service switching back. This information may be useful in correcting the error.

5106 Info Admin

Cause: A password violation occurred while attempting to logon to a mailbox.

Impact: The SEER reports a possible attempt to gain illegal access to a mailbox. Access to the mailbox will be locked out (disabled).

Action: Contact the owner of the mailbox to determine if the user had a problem accessing the mailbox and determine if access to the mailbox should be enabled.

NT: None

Class 52 Toolkit Communications (TC)

Introduction

TC is the ACCESS component responsible for the delivery and reception of data packets on the Meridian ACCESS link.

Failures in the TC may result in the incorrect operation of ACCESS applications running on the UNIX processor which in turn may affect any calls in progress that are controlled by these applications.

Reports

5201 Minor Error

Cause: The TC could not deliver a data packet to the voice toolkit (TK). The packet is considered lost.

Impact: The ACCESS application on the UNIX processor will receive a timeout error on the attempted command as the packet was lost.

Action: If the error persists, contact your NT support organization.

NT: Should only be seen if a TK or VSS has crashed or encountered a serious error. Check for any SEERs of this nature at the time the error occurred. Only one ACCESS session has been affected and software recovery should return the channel back to its correct state. No action is needed unless the error persists in which case you should contact your Northern Telecom Development organization.

5202 Major Error

Cause: The TC was unable to allocate all necessary message buffers at startup time. It is still operational. This could be due to a configuration problem.

Impact: ACCESS applications on the UNIX processor may experience timeout errors. SEER 52 01 will coincide with these timeouts.

Action: If the error persists, contact your NT support organization.

NT: This is a system configuration error indicating a possible problem with the operating system build. Please contact the Northern Telecom development organization.

5203 Minor Error

Cause: ACCESS serial cable plugged into wrong serial port on VoiceMail.

Impact: The ACCESS link will not start.

Action: Refer to the Hardware Administration chapter in the System Administration Guide NTP to check the dataport configuration. Use the port labelled ‘MMlink’.

NT: There should be one dataport defined for ACCESS in the hardware database, for each node to which you connect an ACCESS link. Run hardware administration to see which ones are labelled ‘MMLink’.

Class 53 Voice Processor Diagnostics (VPD)

Introduction

The Voice Processor Diagnostics (VPD) program conducts sanity and integrity tests on voice processor cards.

If an error occurs while testing a card, the diagnostics on the card are terminated. If the test was run from the MMI, the DSP will be set to the Faulty state in the Hardware Database.

A class 53 SEER contains the location code for the card being tested. Note that DSPs are numbered starting from zero. Where a card replacement is indicated, refer to the relevant *Installation and Maintenance Guide* (NTP 555-70x1-250). For the Options platform, refer to the *Options Installation Guide*, NTP 555–7011–210.

Reports

5300 Info System

Cause: General information worthy of being noted, such as voice processor diagnostics started, restarting or destroying tasks, and buffer allocation problems.

Impact: None

Action: None

NT: None

5301 Info Error

Cause: VPD program start request failed.

Impact: Diagnostics are not run on that node.

Action: Contact your Northern Telecom support organization.

NT: Ensure that the correct card type is configured in the hardware database. Make sure the calling program such as Diagnostic Control or MA_VPxx, is passing VPD the correct parameters.

5302 Info Error

Cause: VPD program failed its initialization process.

Impact: Diagnostics are not run on that node.

Action: Locate the node and card of the failing diagnostic. Ensure that the card exists and is properly installed in the correct slot. Correct the situation or replace the card. If the problem persists, contact your Northern Telecom support organization.

NT: Locate the node and card of the failing diagnostic. Ensure that the card exists and is properly installed in the correct slot. Correct the situation or replace the card. If this is a memory mapping or a buffer allocation problem, unload some programs to free up more memory for VPD.

5303 Info Error

Cause: DSP under test failed diagnostics

Impact: DSP will be set to “Faulty“ in the Hardware Database.

Action: Replace the card and run Out-of-Service Diagnostics from MMI. After diagnostics have passed, enable the card, and ensure that all channels are enabled.

NT: Same as action.

5304 Info Error

Cause: VPD program failed to start a DSP diagnostic task or received bad task result.

Impact: Diagnostics on that DSP are terminated.

Action: Contact your Northern Telecom support organization.

NT: Ensure that there is enough memory available on this node to run the diagnostic.

5305 Info Error

Cause: VPD program failed to talk to VOM_PP on that node, or VOM_PP rejected diagnostics.

Impact: Diagnostics on that DSP are terminated.

Action: Locate the node number of the failing diagnostic program. Check the Startlist file and make sure the VOM_PP program is configured on that node. Run Out-of-Service diagnostics from MMI. If problem persists, contact your Northern Telecom Support organization.

NT: Locate the node number of the failing diagnostic program. Check the Startlist file and make sure the VOM_PP program is configured on that node. Also ensure that the DSP has been put “Out-of-Service“ before running diagnostics. Rerun diagnostics.

5306 Info Error

Cause: The voice bus loopback test failed for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

Action: Contact your Northern Telecom support organization.

NT: Replace the VP card for which the diagnostic failed. If other VP cards fail the same test, verify the all boards in the node function properly.

5307 Info Error

Cause: The DSP marching memory test took longer than expected to complete.

Impact: None.

Action: None

NT: None.

5308 Info Error

Cause: The linear-to-PCM loopback test failed for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

Action: Contact your Northern Telecom Support organization.

NT: Replace the VP card that had the test failure.

5309 Info Error

Cause: DSP under test had host interrupt pending even after attempting to clear it.

Impact: Diagnostics on that DSP are terminated.

Action: Contact your Northern Telecom Support organization.

NT: Replace the VP card that had the test failure.

5310 Info Error

Cause: VOM_PP failed to raise interrupt event for the DSP under test.

Impact: Diagnostics on that DSP are terminated.

Action: Contact your Northern Telecom support organization.

NT: Replace the VP card that had the test failure.

5311 Info Error

Cause: Card type found by DSP test was different than the card type passed to the diagnostic.

Impact: The DSP self-test is not run.

Action: Check that the correct card type has been configured.

NT: Check the hardware database to ensure that the correct card type has been configured. Legal card types are NVP, NVP32 and GSP. If the hardware database matches the hardware and the problem persists, replace the card.

5312 Info Error

Cause: The line test for the GSP card detected a line problem.

Impact: The DSP on which the test failed is marked faulty.

Action: This error could indicate a line problem on the switch or with the wiring between the switch and Meridian Mail. The VP card may also be faulty. Contact your Northern Telecom support organization.

NT: For a GSP, check that the switch and the GSP card are both configured for the same type of signalling (loop or ground start). Check the connections between the GSP card and the switch. Ensure that the trunk is operational. If the problem persists, replace the GSP card and rerun the diagnostic.

Class 54 Utility, RSM and HABC Card Diagnostics (RBD)

Introduction

The RB Diagnostics program is used for testing the Utility, the RSM and the HABC cards. StartUp diagnostics are executed automatically at system bootup. Manufacturing floor diagnostics are provided by a CI environment.

Utility card diagnostics coverage includes

- Polling RAM test
- Poll enable
- JAM registers
- Max Poll Latch
- Serial Port LoopBack
- Modem Local LoopBack and Self Test

RSM card diagnostics coverage includes

- Memory Block
- Real Time Clock
- Real Time Clock RAM
- Serial Port LoopBack
- WatchDog Timer
- Alarm Registers

HABC card diagnostics coverage includes

- 2Mb Memory

- Polling RAM
- TAP Register
- 68901 Register
- TAP RAM

At BootUp, if the Diagnostics fail, the card is marked faulty. If only a port failed its test, then the Data/Modem port is faulty and the card state is not changed.

Reports

5400 Info Admin

Cause: General information from RBD (RSM and Bus Diagnostics): information such as diagnostics started, complete, setup etc.

Impact: None

Action: None

NT: None

5401 Major Admin

Cause: JAM register test failed. Information provided includes 'JAM x y' where x is the register written to and y is the register read from. Also provided is the actual and expected data.

Impact: Node Reset/Polling will not function properly.

Action: Change RSMnBus Card.

NT: None

5402 Major Error

Cause: Could not MAP card's memory.

Impact: Diagnostics is not executed.

Action: Retry running the diagnostics. If problem still exists, contact your Northern Telecom support organization.

NT: This problem occurs when trying to do a MAPPHYSICAL of the card's memory. Check if the system is having other memory-related problems. If the OS was patched, it is possible that there is a software compatibility problem.

5403 Info Admin

Cause: Real Time clock is setup for Binary format, however, data in register is not of Binary format.

Impact: Real Time clock time may not be dependable. Card is marked faulty in hardware database.

Action: If the clock is required, replace RSM card.

NT: None

5404 Info Admin

Cause: Data in Real Time clock register is not in the expected range.

Impact: Real Time clock time may not be dependable. Card is marked faulty in hardware database.

Action: If the clock is required, replace RSM card.

NT: None

5405 Info Admin

Cause: The Real Time clock accuracy is checked by saving the time, waiting for x seconds, and then checking the time again. This SEER indicates that the time is not within +1 or –1 seconds of the expected value.

Impact: Real Time Clock time may not be dependable. Card is marked faulty in hardware database.

Action: If the clock is required, replace RSM card.

NT: None

5406 Info Admin

Cause: Read/Write test failed on Real Time Clock register.

Impact: Real Time Clock time may not be dependable. Card is marked faulty in hardware database.

Action: If the Clock is required, replace RSM card.

NT: None

5407 Major Error

Cause: Attempt to register RBD_OVL locally failed.

Impact: Unable to run utility card RSMnBus diagnostics.

Action: This problem only occurs at system bootup. Restart the bootup; if the problem still occurs contact your Northern Telecom support organization.

NT: Verify that RBD_OVL is in the startlist for this node.

5408 Major Error

Cause: Attempt to startup RBD_OVL failed.

Impact: Unable to run utility card RSMnBus diagnostics.

Action: This problem only occurs at system bootup. Restart the bootup; if the problem still occurs contact your Northern Telecom support organization.

NT: Replace the utility card.

5409 Major Error

Cause: Unable to locate RBD_OVL/RSM_Hdlr.

Impact: Unable to run utility/RSM diagnostics.

Action: This problem only occurs at system bootup. Restart the bootup; if the problem still occurs contact your Northern Telecom support organization.

NT: Verify that the RBD_OVL/RSM_Hdlr is in the startlist for this node.

5410 Major Error

Cause: Unable to locate the card's polling memory.

Impact: Diagnostics failed and the card is marked faulty. Utility or HABC card is not fully functional.

Action: Depending on the diagnostic, replace card and reboot the system.

NT: None

5411 Info Admin

Cause: Unable to locate the Real Time clock on the RSM card.

Impact: Real Time clock is not tested. No clock functionality from RSM card.

Action: None, if clock is not needed; or else, replace the card with one that includes the RTC.

NT: None

5412 Info Admin

Cause: Quick memory block test (1st byte of each block) failed.

Impact: Depending on how serious this problem is, the card's functionality may be critically affected.

Action: Depending on the platform, replace the card and reboot the system.

NT: None

5413 Info Admin

Cause: Disable polling test failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

Action: Replace the Utility or HABC card, depending on the platform, and reboot the system.

NT: None

5414 Info Admin

Cause: Enable polling test failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

Action: Replace the Utility or HABC card, depending on the platform, and reboot the system.

NT: None

5415 Info Admin

Cause: Incremental memory test on Polling RAM failed.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

Action: Replace the Utility or HABC card, depending on the platform, and reboot the system.

NT: None

5416 Info Admin

Cause: Walk memory test failed on the Polling RAM.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

Action: Replace the Utility or HABC card, depending on the platform, and reboot the system.

NT: None

5417 Info Admin

Cause: Read/write memory test failed on the Polling RAM.

Impact: Node Polling will not function properly. The Utility or HABC card is marked faulty.

Action: Replace the Utility or HABC card, depending on the platform, and reboot the system.

NT: None

5418 Info Admin

Cause: Incremental memory test failed on Real Time Clock RAM

Impact: Real Time Clock is not dependable. Impact is minimal if the RTC is not being used. RSM card is marked faulty.

Action: Replace the RSM card and reboot the system.

NT: None

5419 Info Admin

Cause: Walking memory test failed on Real Time Clock RAM.

Impact: Real Time Clock is not dependable. Impact is minimal if the RTC is not being used. RSM card is marked faulty.

Action: Replace the RSM card and reboot the system.

NT: None

5420 Info Admin

Cause: Read/write memory test failed on Real Time Clock RAM.

Impact: Real Time Clock is not dependable. Impact is minimal if the Real Time Clock is not being used. RSM card marked faulty.

Action: Replace the RSM card and reboot system.

NT: None

5421 Info Admin

Cause: Error opening file to test the specified port.

Impact: This port is marked faulty.

Action: Check that the hardware database for the port is correct. If it is and problem continues, contact your Northern Telecom support organization.

NT: Check if the port has registered with the name server. Also, verify that the port is defined in the hardware database.

5422 Info Admin

Cause: Serial Port Local LoopBack test failed.

Impact: This port is marked faulty and should not be used.

Action: If this port is needed then replace Utility or RSM card.

NT: None

5423 Major Admin

Cause: Invalid argument string passed into program.

Impact: Diagnostics will not be executed.

Action: If problem persists, contact your Northern Telecom support organization.

NT: Check the *argstring* length.

5424 Info Admin

Cause: Max Poll Latch failed Read/Write memory test.

Impact: Utility card is marked faulty. Polling may not function properly.

Action: Replace the Utility card and re-execute diagnostics.

NT: None

5425 Info Admin

Cause: Alarm register failed.

Impact: Utility or RSM card is marked faulty. Alarm indication may not be dependable.

Action: Replace the Utility or RSM card and re-execute the diagnostics.

NT: None

5426 Info Admin

Cause: Modem diagnostics failed.

Impact: Modem port is marked faulty.

Action: If modem is required, replace Utility card and re-execute the diagnostics.

NT: None

5427 Info Admin

Cause: Error opening file for port testing.

Impact: Port will be marked faulty.

Action: If problem persists contact your Northern Telecom support organization.

NT: Check the hardware database for the correct port name.

5428 Minor Error

Cause: Error acquiring buffer for diagnostics.

Impact: Diagnostics may not be completely executed.

Action: If problem persists contact your Northern Telecom support organization.

NT: Disable ports then rerun diagnostics

5429 Minor Error

Cause: Error communicating with RBD_OVL or RSM_Hdlr.

Impact: Depending on request to RBD_OVL or RSM_Hdlr, the hardware may be left in an improper state, or Diagnostics may not be properly executed.

Action: If problem persists contact your Northern Telecom support organization.

NT: Verify that the RBD_OVL or RSM_Hdlr is in the startlist for this node.

Class 55 Voice Service Administration (VSA) Conversion Utilities

Introduction

Class 55 VSA Conversion Utilities SEERs report the events and errors that may occur during the conversion of various Voices Services such as VSDN and voice services profile.

Reports

5501 Minor System

Cause: Current time not available

Impact: Holidays will be updated with time of January 1, 1980 00:00:01.

Action: None

NT: None

5502 Info System

Cause: Conversion completed.

Impact: None

Action: None

NT: None

5503 Minor Error

Cause: Unable to close the Cabinet.

Impact: None

Action: None

NT: None

5504 Minor Error

Cause: Unable to close the VSDN file.

Impact: None

Action: None

NT: None

5505 Minor Error

Cause: Unable to unlink FCB

Impact: None

Action: None

NT: None

5506 Minor Error

Cause: Unable to close DR.

Impact: None

Action: None

NT: None

5507 Major Error

Cause: Unable to get the FID for cabinet.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check if the cabinet exists.

5508 Major Error

Cause: Unable to open cabinet.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check if there is enough heap space.

5509 Major Error

Cause: Unable to find the VSDN file in cust cabinet.

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check if the file exists.

5510 Major Error

Cause: Unable to obtain the FIR

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check to see if the file exists.

5511 Major Error

Cause: Unable to open the VSDN file.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check if there is enough heap space.

5512 Major Error

Cause: DD_FindRec operation failed.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5513 Minor Error

Cause: No DN record exists in the VSDN file.

Impact: None

Action: Contact your Northern Telecom support organization.

NT: Verify that a VSDN is defined before conversion.

5514 Minor Error

Cause: Unable to delete the VSDN file.

Impact: None

Action: Contact your Northern Telecom support organization.

NT: Delete the file manually.

5515 Minor Error

Cause: Unable to move the VSDN file to the garbage cabinet.

Impact: none.

Action: Contact your Northern Telecom support organization.

NT: Move the file manually.

5516 Major Error

Cause: DD_GetRecDesc operation failed

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5517 Major Error

Cause: Unable to read DN from the VSDN file.

Impact: Unable to continue the conversion process

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5518 Major Error

Cause: Unable to read the ServId Record for DN.

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5519 Major Error

Cause: The number of DN and ServId entries are not equal.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5520 Major Error

Cause: Unable to open the DR

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check if there is enough heap space.

5521 Major Error

Cause: DR_FindEntry operation failed.

Impact: Unable to continue the conversion process.

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5522 Major Error

Cause: Unable to add DN to the DR Entry.

Impact: That particular DN cannot be converted to the DR Entry.

Action: Contact your Northern Telecom support organization.

NT: Recreate the DN manually after conversion is completed.

5523 Major Error

Cause: Unable to link FCB.

Impact: Unable to continue the conversion process

Action: Contact your Northern Telecom support organization.

NT: Check the return code.

5524 Major Error

Cause: Number of DNs fail to convert.

Impact: Certain DN failed to convert.

Action: Contact your Northern Telecom support organization.

NT: Manually recreate those DNs that failed after conversion is completed.

5525 Major Error

Cause: Conversion is partially done

Impact: Certain DN fails to convert

Action: Contact your Northern Telecom support organization.

NT: Manually recreate those DNs that failed after conversion is completed.

5526 Major Error

Cause: Conversion failed

Impact: VSDN conversion failed

Action: Contact your Northern Telecom support organization.

NT: Retry the conversion routine.

5527 Info System

Cause: The VSDN file is moved to the garbage cabinet

Impact: None

Action: None

NT: None

5528 Info System

Cause: Number of DN or ServId to be converted.

Impact: None

Action: None

NT: None

5529 Info System

Cause: The VSDN file is successfully deleted.

Impact: None

Action: None

NT: None

5530 Info System

Cause: Dn already exists in the DR Entry.

Impact: No VSDN Conversion is required on this particular DN.

Action: None

NT: None

5531 Info System

Cause: Converting DN into the DR VSDN Entry

Impact: None

Action: None

NT: None

5532 Info System

Cause: DN successfully converted DR VSDN entry

Impact: None

Action: None

NT: None

5533 Major Error

Cause: Information contained in the VSDN is incorrect. The number of digits in the VSDN entry is either less than the local DN length or greater than system DN length.

Impact: The VSDN cannot be converted.

Action: Check the VSDN, Local DN length or System DN length for errors or contact your Northern Telecom support organization.

NT: Check the VSDN, Local DN length or System DN length for errors.

5534 Major Error

Cause: The sum of the length of the NPA supplied and the length of the VSDN itself is less than the system DN length so there is not enough information to fill the Expansion Digits field.

Impact: Conversion cannot be performed for this VSDN.

Action: Check VSDN, NPA and System DN length for errors or contact your Northern Telecom support organization.

NT: Check VSDN, NPA and System DN length for errors.

5535 Major Error

Cause: The mailbox ID is too long. Either the mailbox ID itself or the mailbox ID together with the NPA is longer than the system DN length.

Impact: Unable to expand the mailbox ID

Action: Check Mailbox ID and System DN length for errors or contact your Northern Telecom support organization.

NT: Check Mailbox ID and System DN length for errors.

5536 Major Error

Cause: System DN length has not been defined.

Impact: Unable to continue the conversion process.

Action: Define a system DN length and re-run conversion or contact your Northern Telecom support organization.

NT: Define a system DN length and re-run conversion.

5537 Major Error

Cause: Local DN lengths have not been defined for the customer OR they are greater than System DN length.

Impact: Expansion Digits cannot be filled for the customer. Only a partial conversion can be done: expansion of Mailbox ID's.

Action: Check customer local DN lengths and system DN length for errors or contact your Northern Telecom support organization.

NT: Check customer local DN lengths and system DN length for errors.

5538 Minor Error

Cause: Unable to close a profile. This occurred when trying to close a customer or system profile and may indicate a possible corrupted profile.

Impact: Heap loss may occur. Otherwise, conversion may continue as usual.

Action: Contact your Northern Telecom support organization.

NT: Check the return code. Check profile noted in the SEER for possible corruption.

5539 Major Error

Cause: dr_NextEntry operation failed. Possible System Error.

Impact: Unable to continue the conversion process.

Action: Try to re-run the conversion. Contact your Northern Telecom support organization.

NT: Check the return code. Try to re-run conversion.

5540 Major Error

Cause: Unable to add a Cabinet.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5541 Minor Error

Cause: The service ID is Invalid

Impact: The Voice Service File is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5542 Minor Error

Cause: DD_Create operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5543 Minor Error

Cause: Unable to add the service ID File

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5544 Major Error

Cause: Unable to open the organization directory.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5545 Minor Error

Cause: DD_Read operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5546 Minor Error

Cause: DD_QuickInfo operation failed

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5547 Minor Error

Cause: DD_CrtRec operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5548 Minor Error

Cause: DD_Add operation failed

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5549 Minor Error

Cause: DD_Write operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5550 Minor Error

Cause: DD_CopyRec operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5551 Minor Error

Cause: cm_UpdtFile operation failed.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5552 Major Error

Cause: Unable to read the system profile.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5553 Major Error

Cause: Unable to read the customer profile.

Impact: Unable to continue conversion process.

Action: Contact your Northern Telecom support organization.

NT: None

5554 Major Error

Cause: Unable to read the Admin Language Record

Impact: Unable to continue conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5555 Major Error

Cause: Unable to read the Admin Login Record

Impact: Unable to continue conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5556 Major Error

Cause: Unable to move the new Voice Service cabinet.

Impact: Unable to continue conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5557 Minor Error

Cause: Unable to read the Voice Services profile.

Impact: Unable to continue conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5558 Minor Error

Cause: The FIR for the Voice Service file is invalid.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5559 Major Error

Cause: Unable to obtain the FIR for the Cabinet.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5560 Major Error

Cause: Unable to obtain the FID for the Cabinet.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5561 Major Error

Cause: Unable to remove the old Voice Service cabinet.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5562 Minor Error

Cause: Unable to open the Voice Service file.

Impact: The Voice Service File is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5563 Minor Error

Cause: Unable to find the specified record in the file.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5564 Minor Error

Cause: Unable to obtain FIR for the Voice Service File.

Impact: The Voice Service file is not converted and will be moved to garbage cabinet.

Action: None

NT: None

5565 Minor Error

Cause: Unable to obtain FID for the Voice Service File.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

55566 Minor Error

Cause: Unable to find the DR entry.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: None

NT: None

5567 Minor Error

Cause: Unable to add the Voice Service entry to the DR.

Impact: The Voice Service file is not converted and will be moved to the garbage cabinet.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5568 Major Error

Cause: Unable to open the specified cabinet.

Impact: Unable to continue the conversion process.

Action: Check the return code. Contact your Northern Telecom support organization.

NT: Check the return code.

5570 Minor Error

Cause: Unable to change the VSDN table entries.

Impact: Unable to automatically change the DNs.

Action: Get around this problem by using the MD_DR utility. Contact your Northern Telecom support organization.

NT: Use the MD_DR utility.

5571 Minor Error

Cause: Unable to fix the Voice Service definitions.

Impact: Unable to automatically change the Service definitions.

Action: Use the MD_DR utility to get around this problem. Contact your Northern Telecom support organization.

NT: Use the MD_DR utility.

Class 56 Centralized Call Answering (CCA)

Introduction

Centralized Call Answering (CCA) receives the user's voice messaging commands and executes them by calling the Voice Handler and Voice Processor.

Most CCA errors affect only one call or user's session (unless the error is a symptom of a hardware problem). For most serious problems diagnosed by CCA, the call is routed to the system attendant DN, and CCA releases memory and files for the next call.

A class 56 SEER contains:

- lower level return code
- the user's mailbox number or DN (if relevant). If a mailbox included in a SEER is the user's mailbox (i.e., the login user or the recipient in a call answering session), then the mailbox number is output in the administrator's (the prime) context. Thus, since the administrator is the one looking at the SEERs, the SEER will be more meaningful to him or her.

Class 56 SEERs are often preceded by a related SEER which has the same mailbox number or the same return code.

In addition, some Class 56 SEERs may be followed by one or two related SEERs which are used by Northern Telecom support organizations to trace problems. These debugging SEERs are normally not printed, but are stored in the SEER history file, and can be viewed/printed using the MMI or the SE_UTIL utility (to enable printing of these SEERs, the SEER filter level must be set to 'DEBUG' using the SE_UTIL utility). These debugging SEERs are intended to be used by the Northern Telecom support organization only.

Format of CCA debugging SEERS:
If the text of any Class 56 SEER begins with the '+' character, this means that additional related debugging SEERs will be written into the SEER file. These SEERs will have the same SEER class, number and return code as the CCA SEER containing the '+' character, and are printed AFTER the original CCA SEER. The first debug SEER is 'VM Cmds' and can be used by the CCA designers to determine the last 20 commands issued by the user. The second debug SEER is 'VM Procs' and can be used to determine the software execution path (this second debugging SEER is only printed if the Debug level is higher than zero, set using the ad_util).

Reports

5601 Minor Error

Cause: CCA encountered a problem while playing.

1. If the text says "Create Acknowledgement", CCA failed to create and send an acknowledgement.
2. If the text says "Playing NDN/ACK prompt", CCA failed to open or play messages correctly.
3. If the text says "Playing NDN/ACK attachment" or "Playing attachment" or "Playing attachment prompt", CCA failed to open or play attachments correctly.
4. If the text says "Playing from beginning" or "Playing start prompt", CCA failed to open or play messages correctly.
5. If the text says "Play Prompt called with prompt files released", CCA tried to play a prompt before the prompt files were initialized or after they were released.
6. If the text says "Trying to skip forward in msg", CCA encountered an error when the user skipped forward while playing a message. There are two possible causes: i) an attachment on the message could not be opened, or ii) the lower-level VH software could not perform the PlaySkip command.
7. If the text says "PlayPrompt problems", CCA was informed of an error by the lower level VX software while trying to play a system prompt (not user voice). A possible cause of this problem is corrupt data in a message header or user's profile, or an invalid time-stamp. A related class 21 SEER is printed just before this, containing the prompt ID that it was attempting to play.

The return code isolates the cause.

Impact:	Case 1.	The recipient of the original message will not hear any error prompts.
	Cases 2, 3.	The user hears the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator.”
	Case 4.	“This message cannot be played. To delete it, press 3.”
	Case 5.	No prompt is played.
	Case 6.	The user hears the prompt “Your command cannot be completed at this time ...”, and the skip forward command will fail. The skip forward command will not send a message delivery acknowledgement in this error condition.
	Case 7.	The prompt will not be played, or will be partially played, or will be played as silence. In some cases, the software depends on successful playback of a prompt. In these cases the user’s session will appear to be inactive (i.e., the session may appear “hung”).
Action:	Cases 1–6.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information and contact your NT support organization.
	Case 7.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Collect all relevant information (including the prompt ID from the previous Class 21 SEER) and contact your NT support organization.
NT:	Cases1–7.	If the return code does not point to the problem, notify your Northern Telecom development organization.

5604 Minor Error

Causes:
1. CCA encountered a problem while trying to start recording at the current position of a previously created message. The return code isolates the cause.
2. If the text says “Failed to commit message” then CCA had a problem doing incremental saves on a large message.

Impact:
1. The user will hear the error prompt “Your command cannot be completed at this time. Please try again later or contact your administrator”.
2. Recording will be stopped and the user will hear an error prompt. If it is in a call answering session the call will be disconnected. The message may or may not exist as recorded or it may be corrupt. In addition, the user volume on the disk may reach a safety limit, which will prevent call answering from working. If this happens, the problem will clear automatically during the overnight audits.

Action:

1. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
2. User-recorded voice messages are auto-saved every five minutes of recording. This is failing, and your Northern Telecom support organization should be called. However, in the mean time, you may wish to temporarily reduce the maximum message length to less than five minutes. This will avoid the problem until it can be corrected.

NT:

Case1. If the return code does not point to the problem, notify your Northern Telecom development organization.

Case 2. The message is committed every five minutes to free up block record resources in the volume server. If this is failing, the BR's may be improperly allocated. An audit on the affected user volume should be run to clean up the side effect of the problem.

5613 Minor Error

Cause: CCA encountered an error while a user was logging in. The error occurred during the initial login or after the user issued the login command. If the text says:

1. "New Var of UserInfo", CCA failed to acquire memory space for a new variable called "UserInfo".
2. "Opening cabinet", CCA failed to open the user's cabinet.
3. "Finding Profile", CCA failed to find the user's personal profile.
4. "Opening Profile", CCA failed to open the user's personal profile.
5. "Updating Org Directory", CCA failed to update the organizational directory if a user's password had expired.
6. "Failed to associate client", CCA failed to register the user as currently using CCA
7. "vhCloseV", CCA encountered an error while updating or closing the user's cabinet after the user tried to use the login command.
8. "cmFlushM", CCA encountered an error while updating or closing the user's cabinet.
9. "cmCloseM", CCA encountered an error while updating or closing the user's cabinet.
10. "cmCloseC", CCA encountered an error while updating or closing the user's cabinet.

11. “ClosePrf”, CCA failed to close the personal profile while logging in from CCA.
12. “Opening first message”, CCA failed in the procedure “cm_MenuToFIR” which finds and opens the first message.
13. “Check/Playing summary”, CCA encountered an error while inspecting the user who was logging in.
14. “Password Violation” or “Password Violation by <DN>” CCA discovered someone consecutively entering more than the maximum allowed number of incorrect passwords. The affected mailbox and the calling DN, if known, are given and the mailbox is disabled. If a non-zero lockout reset time has been specified for the customer group (Voice Security screen), then the mailbox will automatically be re-enabled after that time.
15. “Cannot read MWI for guest”, CCA had difficulty reading message counters.
16. “Problem in logincheck/Playing Summary”, CCA encountered a problem in completing a login.
17. “Cannot read component phone number record” or “Cannot read component time period”, then an error was encountered while checking remote notification being turned off externally for a mailbox.
18. “Failed to set volume level prior to login”, CCA had problems setting the volume level to the level stored in the calling DN’s personal profile.
19. “Failed to set volume level after login”, CCA had problems setting the volume levels to the subscribers saved volume level.
20. “Cannot read outcalling record”, CCA could not read the outcalling record for the subscriber.
21. “RN DN cannot be reached”, The number to be called for remote notification cannot be reached.
22. “...CloseSNFC13”, CCA had problems closing the spoken name file cabinet when the subscriber pressed “*” from the main menu in order to login to another mailbox.
23. “...CloseTempProf”, CCA had problems closing the PDL temporary file when the subscriber pressed “*” from the main menu to re–login
24. “...Intro Cntrs”, CCA had problems getting the cabinet counters for the mailbox.
25. “...Update MWI”, CCA had problems setting the subscribers MWI at logoff (preparing for login to another mailbox).

26. "...ChgMode CRej". The user is logging in from call answering and had calls rejected due to a full mailbox. CCA attempted to change the mode that the profile control block is into quick read/write.
27. "...cmchgmode". Could not change the mode of the user's cabinet (variable) to quick read/write.
28. "...rnNlogout". Could not update the outcalling service.
29. "Failed to get default record". The subscriber has RN or DNU (delivery to non–user) capabilities. However, the outcalling record was not found so CCA attepted to created a general outcalling record but failed to do so.

The return code isolates the cause.

Impact:

Cases 1–6.	The user will not be allowed to log in.
Cases 7–10.	The user will be allowed to log in. New messages or changes to existing messages may not be reflected the next time the user logs into the mailbox.
Cases 11–13.	The user will not be allowed to log in.
Case 14.	The user will not be allowed to log in until the administrator re-enables the user's mailbox.
Case 15.	The user will be able to log in, but the MWI may not be correct.
Case 16.	The user will not be allowed to log in.
Case 17.	The user will not be notified that his remote notification had been turned off externally (however, probably indicates that there will be further problems with remote notification).
Case 18.	Volume level of prompts will remain at normal level.
Case 19.	Volume level will remain the same.
Case 20.	The Remote Notification Summary is not played during login.
Case 21.	The user cannot be remotely notified with the present RN DN.
Cases 22–23.	CCA will still attempt to log off the subscriber and set up for re–login.
Cases 24–25.	The MWI may not be set properly.
Case 26.	Profile cannot be written to.
Cases 27–28.	Possibly the OCS (outcalling service) will not get updated and remote notification will not be activated.
Case 29.	The login attempt will fail and the user will be prompted for the mailbox/password again.

Action:	Cases 1–13.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.
	Case 14.	The Administrator must re-enable the mailbox.
	Case 15.	The user will be able to log in, but the MWI may not be correct.
	Case 17.	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is sitll unclear, contact your Northern Telecom support organization.
	Case 18.	Check the VSL return code or contact your Northern Telecom support organization.
	Case 19.	Check the VSL return code or contact your Northern Telecom support organization.
	Case 20.	Check the ad return code or contact your Northern Telecom support organization.
	Case 21.	The remote notification DN must be changed for the user.
	Cases 22–29.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
NT:	Case 2.	Ensure that the user's cabinet exists and can be opened using MD_CM. Ensure that the user's cabinet FID in DR is correct using MD_DR.
	Cases 3, 4.	The user's profile may be corrupt. Attempt to re-build it using ad_util. If this does not help, notify the development organization.
	Case 5.	Ensure that the user's DR entry is accessible using MD_DR, and rebuild it if necessary.
	Case 6.	Ensure that the VCA program is running using PRM_CONTROL, and restart it if necessary.
	Case 11.	Check for corruption in the user's cabinet using MD_CM.
	Case 13.	The user's mailbox was disabled due to too many bad password attempts. The calling DN (person trying to illegally log in) is encoded at the end of the SEER in ASCII text string format.
	Case 17.	The user's profile may be corrupt. Attempt to rebuild it using ad_util. If this does not help, notify your Northern Telecom development organization.

All other cases: If the return code does not point to the problem, notify your Northern Telecom development organization.

5614 Minor Error

Cause: CCA encountered a greeting problem. The text indicates the cause. If the text says:

1. "Opening greeting", CCA encountered an error while gaining access to a system, custom or personal greeting.
2. "Update greeting", CCA encountered an error while accessing, reading, or writing a personal greeting.
3. "Delete greeting", CCA failed to delete personal greeting.
4. "Clear grt in prof", Voice messaging detected an inconsistency in the user's greeting in his/her personal profile. The attempt to rectify the inconsistency failed.
5. "Closing greeting", "Closing custom greeting", or "Second attempt to close custom greeting", an attempt to close a greeting failed.

The return code isolates the cause.

Impact:

Cases 1, 2.	The greeting will not be altered.
Case 3.	The user will hear the error prompt "Your command cannot be completed at this time. Please try again later".
Case 4.	Subsequent attempts to reference the greeting will fail. Call answering sessions will use the standard greeting.
Case 5.	A heap loss may be detected when the call completes, resulting in a channel reload.

Action: Determine the scenario that caused the problem. Look up the return code for more information. If the code does not help, contact your NT support organization. Note that persistent SEERs on opening or playing Custom Greetings could be caused by failing to record a greeting after setting the greeting record to "custom"..

NT: If a personal greeting is involved, the user's profile may be corrupt. If a system greeting is involved, the ORGPROF may be corrupt. Rebuild the affected profile if necessary, using ad_util.

5621 Minor Error

Cause: CCA encountered an error while gaining access to, reading or writing the password information. The return code isolates the cause.

Impact: The user's password will not be updated. The user will hear the error prompt "Your command cannot be completed at this time. Please try again later or contact your administrator."

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user's profile may be corrupt. Check and re-build it if necessary using ad_util.

5622 Minor Error

Cause: CCA encountered an error involving the spoken name. If the text says:

1. "Opening a spoken name", CCA could not open the file containing spoken names.
2. "Deleting Voice" or "Closing Voice", or "Closing spoken name", the requested action of deleting information or closing a file failed.
3. "opening detfid" or "closing detfid" or "Finding submailbox spoken name" , an error occurred trying to determine if a submailbox has a spoken name.
4. "SubMbx Maint: Opening Main Mbx Spoken Name", CCA failed to open spoken name for the main mailbox.
5. "Open Detfid in SMDis" or "remove sn in SMDis" or "Close detfid in SMDis", CCA failed to remove the spoken name for a partially set submailbox that was cancelled.
6. "Could not open sn" could not open spoken name file during submailbox creation or spoken name change.

Impact:

Case 1.	Depends on context.
Case2.	The spoken name may not be deleted. There may be a heap loss resulting in a channel reload once the call has completed.
Case3.	The application will treat the submailbox user as if he/she had no spoken name set up.
Case 4.	Will default to no spoken name available.
Case 5.	No impact on the caller.
Case 6.	The action will not be allowed. The user will hear, "Your command cannot be completed at this time. Please try again later."

Action:

Case 1.	Examine subsequent SEERs that will be issued.
Cases 2–5.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.

Case 6. Check the return code for more information, along with previous SEERs issued. If this does not help, contact your Northern Telecom support organization.

NT: It is possible that the user's DR entry may be corrupt. Check and re–build the affected user's DR entry if necessary using MD–DR. If this does not work contact your Northern Telecom development organization.

5623 Minor Error

Cause: CCA encountered a problem while attempting to use a Personal Distribution List (PDL). If the text says:

1. "Could not delete Pers Dist List" an attempt to delete a PDL failed.
2. "Could not record Pers Dist List" an attempt to create a new PDL or change an existing PDL failed.
3. "Read PDL entry", or "Reading PDL record" an attempt to an address in the PDL from the disk failed.
4. "Addr Conv PDL Entry" bad data was found in a PDL entry read off the disk.
5. "Validation of PDL Entry" bad data was found in a PDL entry off the disk.
6. "Could not close Pers Dist List" the PDL previously opened could not be closed.
7. "NEmp PDL addressing" or, "PDL NU addressing", or "PDL AMIS Address" an error occurred during the validation of an address a user added to a PDL.
8. "Emp PDL addressing" an error occurred during the attempt to cancel the last address a user added to the PDL.
9. "Reading PDL/Map" an attempt to determine which PDLs are used and which are not failed.

Impact:
- Case 1. The PDL may not have been deleted.
- Case 2. The user will hear "Your command cannot be completed at this time. Please try again later".
- Cases 3–5. The PDL could not be dealt with. The command will be cancelled and the user will be disconnected.
- Case 6. Any changes made to the PDL may not be saved.
- Cases 7–9. The PDL change will be cancelled.

Action: Check the return code as well as any preceding or subsequent SEERs for more information. If the cause of the problem is still unclear, contact your Northern Telecom support organization.

NT: Personal Distribution Lists are stored in the user profile of each mailbox. Errors in handling PDLs can generally be cleaned up by deleting the affected PDL record in the Profile file. This can be done using the MD utility (record type is ByteStream, record ID = PDL number). The PDL record will be recreated (but empty) the next time the user enters that PDL number in PDL SETUP. If this fails to work, the entire Profile can be deleted then recreated using ad_util (or by copying from another user and modifying appropriately). Also note that some PDL operations make use of a temporary copy of the Profile. If a PDL operation fails, this temporary file may not immediately be cleaned up properly. The result is that the text storage on the user volume may temporarily be increased erroneously. To delete this temporary file an audit of the user volume can be run (but this happens automatically overnight anyway).

5625 Minor Error

Cause: CCA failed to create a new message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on the message. A call answering or express message may not have been created in the user's mailbox.

Action: Contact the owner of the mailbox shown in the SEER, and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This will normally be caused by a problem with the file system (for example, volume full condition or incorrect VS formatting parameters) or a problem with the disk subsystem. Verify the correct configuration of the volumes. Check and repair SCSI components if necessary.

5626 Minor Error

Cause:
1. CCA encountered an error while adding a message to the user's cabinet, as indicated by the SEER text.
2. If the text says "Adding new Arrival" or "New Arrival", CCA encountered an error while adding a message to the user's message list.
3. If the text says "AddMsg failed in rnMsgArrival" then there was a failure telling the OCS that a message had been deposited for someone by CCA.

The return code isolates the cause.

Impact: Case 1–2. The messages will be lost.

Case 3. The recipient will not be "remote-notified" of the message.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This scenario can occur when a new message is sent to a user who is currently logged in. Attempt to reproduce the problem by sending composed and call-answering messages to a logged-in user. (The user must move to the next message before the new message can be received).
This scenario can also occur any time a new message is added to a mailbox by way of compose, send-receive, call answering or express messaging. For cases 1 and 2, check for volume full condition. For case 3, check that the OCS software is loaded and running (use PRM_CONTROL utility).

5627 Minor Error

Cause: CCA encountered an error while gaining access to, opening, or reading the message. The return code isolates the cause.

Impact: The user will hear one of three error prompts:

1. "Your command cannot be completed at this time. Please try again later or contact your administrator"
2. "Your mailbox is full. You cannot create new messages until some messages are deleted. Please contact your administrator if you need assistance".
3. "The system has reached its storage limit. Your command cannot be continued. Please contact your administrator for assistance."
4. If the text says "Inconsistent Times in Msg" then there is no impact whatsoever. This SEER can be ignored in all cases; it should not have been printed.
5. If the text says 'Late Msg' or 'More Info', then a user has received a message that was sent more than 10 minutes ago.
6. If the text says "Deleted IP Msg in Mbx", then an acknowledgement or non–delivery notification was found in a mailbox that supports call answering only. The message is deleted with no impact to the user.

Action: Case 1. Look up the return code for more information. If the code does not help, contact your NT support organization. If the text of the SEER refers to "trying to open message" with a return code of 1007, this and subsequent 5627 and 5633 SEERs are not significant problems unless a number of them occur at once. The user can clean up any inconsistencies caused by this problem by deleting the offending message.

Case 2. The user should delete some messages or the administrator should increase the user's voice storage allocation. If this does not help, contact your Northern Telecom support organization.

Case 3. That user's volume is full. User's should be reminded to delete all unneccessary messages. Auto–deletion of sent or read messages can be enabled. If this does not help, contact your Northern Telecom support organization.

Case 4. None. Please ignore this SEER.

Case 5. Advise the user shown in the SEER not to delete any messages in the mailbox, so that these can be studied by Northern Telecom Support. Contact your Northern Telecom Support organization.

Information in this SEER is as follows:

- HDR.DR is the time the message was left/sent/time-delivered
- FIR.DC is the time the message arrived in the recipient's mailbox
- R= is the number of recipients
- +B means this is a broadcast message
- +S means the message was sent to a system distribution list

The FID of the message is also included; if the user has deleted the message from his or her mailbox, the FID can be used to find the message if it exists in anyone else's mailbox. If the message was sent to a large system distribution list, or is a broadcast message, or if a broadcast message or one with a large distribution list exists in the user's mailbox prior to the late message, then this SEER can be ignored.

Otherwise, print out the following information and contact your Northern Telecom development organization:

1. The message contents using the MD-MT utility.

2. The user's cabinet contents using "display + e" in the MD-CM utility.

3. The contents of any system distribution list that the message was sent to.

Case 6. None. Please ignore this SEER.

NT: If this SEER occurs with any regularity, it may be useful to turn on the "Session Trace" feature. See the section Operations Measurements section in the ETAS

Utilities. The “Session Trace” feature will track each interaction with a mailbox, so that the resulting messages can be traced.

5628 Minor Error

Cause: CCA encountered an error while entering or committing the cabinet, or while updating the menu. The return code isolates the cause.

Impact: Changes, if any, may not take effect.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user’s cabinet may be corrupt. Attempt to open the cabinet using MD_CM, and delete and rebuild the mailbox if any corruption is found.

5629 Minor Error

Cause:
1. CCA encountered an error while updating the menu.
2. CCA encountered an error while gaining access to, or reading the personal profile, or while trying to turn off the message waiting indicator (MWI).

The return code isolates the cause.

Impact:	Case 1.	Any changes to the message may not be reflected the next time the user logs in.
	Case 2.	The MWI may be set incorrectly.
Action:	Case 1.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 2.	To reset the MWI, send a new message to the user’s mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly.
NT:	Case 1.	The user’s cabinet may be corrupt. Attempt to open the cabinet using MD_CM, and delete and rebuild the mailbox if any corruption is found.
	Case 2.	The MWI can be reset using the GTI_PKG utility. If the problem persists, notify the development organization.

5630 Minor Error

Cause: CCA could not close a message. The return code isolates the cause.

Impact: The user may encounter more problems performing further operations on that message.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user's cabinet may be corrupt. Attempt to open the cabinet using MD_CM, and delete and rebuild the mailbox if any corruption is found.

5631 Minor Error

Cause: CCA was unable to update a user's cabinet to reflect the deletion of a message.

1. If the text says "Opening Msg in DelAll", the message could not be opened for deletion/restoration during a request to delete messages.
2. If the text says "Updating Msg in DelAll", the message could not be marked as deleted/restored during a request to delete messages.

Impact: The message may not be deleted/restored.

Action: Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The user's cabinet may be corrupt. Attempt to open the cabinet using MD_CM, and delete and rebuild the mailbox if any corruption is found.

5632 Minor/Critical Error

Cause: CCA was unable to acquire sufficient initial resources to begin a session. The text message indicates the cause. If the text says:

1. "Switching services: CA—CCA", the user tried to log in from a call answering or express messaging session and CCA encountered a problem trying to switch to a voice messaging service.
2. "Cannot switch to prompt files for language", CCA had problems resetting the language of the system prompt files.
3. "Problems in cca — Logoff called", CCA had already detected a problem and failed to obtain information from the voice services shell on details of the Calling and Called DNs.
4. "Getting call info. on service transfer", CCA had a problem obtaining information from the voice service shell after the VSS had invoked it.
5. "Getting cca control block", CCA had a problem obtaining heap to store its global data record.
6. "VM: VM svc — fails to bind routines", a bad service ID was used in the procedure that associates the VM routines with the VSS.
7. "CCA: CA svc — fails to bind routines", a bad service ID was used in the procedure that associates the CCA routines with the VSS.

8. “PhoneDN was calling CalledDN”, CCA encountered a serious problem and has terminated the call.
9. “User not subscribed to Call Answering forwarded to CCA, DN”, CCA encountered a problem during call-answering and has terminated the call. Either a non-user of voice messaging had his or her phone forwarded to the Meridian Mail DN (the user has a mailbox but it may not receive Call Answering messages), or there was a serious directory problem. In this particular cause, the SEER code is considered Type: Admin. and Severity: Info.
10. “Could not find parser/state table”, the incorrect parser tables were loaded by vss.pd. The table numbers are: 0—generic Meridian Mail, 1—guest voice messaging, 3—post checkout, and 4—VMUIF call answering.
11. “Error playing custom login”, the custom login greeting was not recorded or some other greeting error has occurred.
12. “Error playing custom intro greeting”, the intro custom greeting was not recorded or some other greeting error has occurred.
13. “Bad connection timestamp in StartCCA”, then CCA was unable to get the time of original connection to the service.
14. “Could not get DN for Call Sender”, CCA was unable to get the DN type and number of the calling number in StartProc (CCA initialization).
15. “Getting space alloc/used” then the space allocation and space used parameters could not be obtained from the VS for the mailbox indicated.
16. “Calling DN: x CalledDN: x Dev: x Type: x CustNum: x”, the call could not be answered or the initial prompt such as ‘Welcome to Call Answering’ could not be played. Possible problems are link outages, VPIO task dead, and voice port faulty.
17. “get subcounters for mwisummary”, could not read in the message information for the mailbox or submailbox.
18. “play prompt”. CCA could not play the following message: “Messages waiting for...”
19. “Opening DetFID for MWI summary”. CCA could not open the file for spoken names.
20. “Cannot get DR entry”. CCA failed to get the directory info for a user logging in from a voicemenu or Remote Notification.
21. “NewVar of UserInfo”. CCA could; not allocate memory to store the user information.

22. “Getting SPM info on Service Transfer”. CCA had problems get information from VSH on a redirected call (from another SPM).
23. “Play MWI Summary”. CCA had a problem playing the Spoken Name.
24. “Play rest of login after MWI summary”. CCA had problems playing the appropriate login prompt after playing the message waiting list (ie. please enter your password...”)
25. “Problem Completing login of User”. Occurs after the user has successfully logged in. CCA had trouble finishing up the login stage. Could be accompanied by the SEER: “Problem in logincheck/Playing summary”.
26. “Language record index xx out of range for System Profile”. CCA could not set or switch to a preferred language.

The return code isolates the cause.

Impact:

Case 1.	The user will hear the error prompt and will return to where the login command was entered.
Case 2.	If the previous language was different from the new language, the system will try to switch back.
Cases 3–8.	The user will probably not be connected with the desired service.
Cases 9.	See Action.
Case 10.	The service will not be available.
Case 11.	If the greeting is not recorded, the service continues. If some other error is occurring, the service discontinues.
Case 12.	The greeting is not played.
Case 13.	OM reports on service usage may be incorrect and other features involving times may not work correctly (i.e., timed delivery, remote notification setup).
Case 14.	User may not be able to perform Call Sender function during session.
Case 15.	Session will continue. If the user’s mailbox is full, this will not be announced during login, and call answering will not be blocked even if this feature is enabled.
Case 16.	The call is disconnected and the user will hear a partial prompt or no prompt at all.
Cases 17, 18.	The message waiting summary (for submailboxes) is not played. The user is still logged in.
Case 19.	The message waiting summary will be given without the spoken name.

	Case 20.	The CCA session will disconnect; however, the system will exit gracefully
	Cases 21, 22.	The call will be dropped.
	Case 23.	The message waiting summary will stop playing and the user will begin to log in.
	Case 24.	The user will have to wait for the delay prompt (or press 0).
	Case 25.	May cause user to re–login or may just fail to turn RN back on.
	Case 26.	May not be able to play prompts in the user's preferred language, or at all.
Action:	Case 1.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 2.	Examine the related SEERs. Check that the preferred language of the user is a valid, installed language. Note: "Preferred language override" only applies to Call Answering and Express Messaging.
	Case 3.	Examine subsequent SEERs containing the same DN or user or mailbox for more information.
	Case 4.	Examine the preceding SEERs for more information.
	Case 5–7.	Look up the return code for specific information. If the code does not help, contact your NT support organization.
	Case 8.	Examine the preceding SEERs for more information. If there are no preceding SEERs, the problem might be either that a non-CCA user forwarded his or her phone to CCA or the directory has a serious problem.
	Case 9.	Define a mailbox for the non-user or stop the offending telephone from being forwarded to CCA.
	Case 10.	Contact your NT support organization to replace with the correct vss.pd.
	Cases 11, 12	Record a greeting. If the problem persists, check the return code and contact your Northern Telecom support organization.
	Case 13.	Ensure that the time is set correctly. If problem persists, contact your Northern Telecom support organization.
	Case 14.	If problem persists, contact your Northern Telecom support organization.
	Case 15.	Act according to the return code indicated.

	Case 16.	If problem persists, contact your Northern Telecom support organization.
	Case 17.	Check the return code in cm_EntryNotFound–_couldn't find the submbx info specified or in DD return code. If the problem persists, contact your Northern Telecom support organization.
	Case 18.	Check the return code. If the return code does not provide a solution, contact your Northern Telecom support organization.
	Case 19.	Check the return code. It is a DD return code from opening file.cabinet.
	Cases 20-23.	Check the return code for specific information. If the return code does not provide a solution, contact your Northern Telecom support organization.
	Case 24.	Check the VX return code for specific information. If the return code does not provide a solution, contact your Northern Telecom support organization.
	Case 25.	If the problem persists check the return code for specific information. If the return code does not provide a solution, contact your Northern Telecom support organization.
	Case 26.	Check the preferred language for the user and reset it, if necessary, to a valid language. If the problem persists, contact your Northern Telecom support organization.
NT:	Case 2–3.	Ensure that prompt files exist in the correct cabinet on the correct volume, using the MD utility.
	Case 9.	The mailbox number in the SEER is actually the called-DN, which was set to forward to CCA. If this DN is not supposed to have a mailbox, then change the DN definition on the switch so that it does not call forward or hunt to CCA. If the DN is a secondary DN on a multi-line phone, then add this DN to the Extension DN list of the mailbox. If the DN in the SEER is supposed to have a mailbox already, then use MD_DR to attempt to retrieve the mailbox DR entry. Re-build the DR entry if necessary.
	Case 14.	The calling DN given in the PCI from the switch should be checked.
In all other cases:		If the return code does not point to the problem, notify your Northern Telecom development organization.

5633 Minor Error

Cause: CCA encountered a problem during the logoff sequence.

Impact: Varies widely, from an improper setting of the user's MWI to a drastic loss of program resources. The user may not notice any problems until login is tried again.

Action: The SEER text should describe the exact problem. If the action is not obvious from the description, contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This SEER will normally list one or more internal software procedures which could not be executed. The return code in the SEER applies to the first procedure which encountered a problem; the remaining procedures may have had problems as a result of the first problem. There will usually be several related SEERs preceding the 5633 SEER; they are related if the TaskID in the SEER is the same. These related SEERs should be studied closely to determine the cause of the problem. Some of the possible errors shown in the SEER are as follows:

- "cmFlushM", "cmCloseM", "cmChgMode", "cmCloseC"
  means that updates to the mailbox (e.g., msg deletions) may not take effect. Check for and clean any corruption in the user cabinet, using MD_CM.
- "rnNLogOut", "ocCallResult"
  means that remote notification for this user may not work. Check that the OCS software is installed and running, using PRM_CONTROL.
- "gtiLogout"
  means the user will not be able to perform call-sender in the same session. Check that the AML/CSL/ISDN–AP link is up.
- "vhCloseV"
  means that the customer profile may be corrupt. Check and fix this using MD.
- "ClosePrf"
  which means changes to the user profile may not take effect; the Profile file may be corrupt. Check using ad_util.
- "Gst Cntrs"
  means the voice message counters could not be obtained successfully, leading to the message lamp not being set correctly for the user.
- "drChgEntry"
  which means that the user's DR entry could not be updated with password expired status. Check for corruption in the DR using MD_DR.
- "Disconnect"
  means there was a problem disconnecting the call. See SEER 2215.
- "om_SendCCAData"
  means that operational measurements information could not be saved for this

session. Check that the OMSERVER software is running using PRM_CONTROL.

- "Disassociating Client"
  means the user could not be deregistered from the call, and may not be able to log in again (prompt will say mailbox currently in use). Disable and re-enable the channel.

5634 Minor Error

Cause: CCA encountered a error turning on the MWI while depositing a call answering message in a user's mailbox. The return code isolates the cause.

Impact: The MWI for the target user's mailbox may be set incorrectly.

Action: To reset the MWI, send a new message to the user's mailbox, then have the user log in and read all messages that are new. The MWI should now be set correctly. Look up the return code for specific information. If the code does not help, contact your NT support organization.

NT: The MWI can be reset using the GTI_PKG utility. If the return code does not point to the cause of the problem, notify the development organization.

5635 Minor Error

Cause: CCA is receiving error messages or unusual data from other software components. If the text says:

1. "StopVoice", CCA requested the Voice Handler to stop the playing of voice and the Voice Handler returned an error.
2. "PlayPrompt Problems", CCA had an error or internal time-out.
3. "Unexpected Call Progress Entry", CCA had an error or internal time-out.
4. "GTI Reference ID Mismatch", CCA had an error or internal time-out.
5. "Recording Problem". A user volume is completely full.

The return code isolates the cause.

Impact:	Case 1.	The user may hear voice continue to play where it was expected to stop.
	Case 2–4.	Unpredictable.
	Case 5:	No more messages or voice prompts can be recorded on that volume.
Action:	Cases 1–4.	Look up the return code for more specific information. If the code does not help, contact your Northern Telecom support organization.

	Case 5.	Check the distribution of users in a multi–volume system. Get a larger disk if necessary. Possibly arrange for “read” messages to be removed off the system faster.
NT:	Cases 3–4.	Use ad_util to enable the CCA debug flag, then check the console window during similar scenarios. The console window will show all call-progress information received from the switch. The “CallState” values can be found under the heading “Call Progress Status”, and the “otherInfo” values can be found under the heading “Supplementary Information to Call Progress Status”, both in Appendix 1 of this manual.
In all other cases:		If the return code does not point to the problem, notify your Northern Telecom development organization.

5636 Minor Error

Cause: CCA encountered a problem during a call answering or express messaging session. The message text indicates the cause. If the text says:

1. “Close the greeting”, CCA had problems closing the greeting before starting to record a call answering message.
2. “Creating the message”, CCA was unable to create a message for the call answering session.
3. “Close voice in bad grtg”, CCA had a problem playing a greeting and closing it.
4. “Error playing pers. grtg, subst std grt”, CCA had a problem playing a non-system greeting or a telset busy prompt.
5. “Read Profile”, CCA had a problem finding the user’s profile for a Call Answering session.
6. “Error playing system grtg, subst pers/std grtg”, CCA had a problem playing the system greeting.
7. “dr_FindEnt on Caller”, CCA encountered a problem finding the caller’s entry in the organization directory while trying to set up the call information.
8. “mkAddress on Caller”, CCA encountered a problem formatting the callers addressing while trying to set up the call information.
9. “Unpack BillDN”. CCA failed to bill the user for a call that the user is about to place.
10. “Opening DefFID for CA Menu”. CCA failed to open the file containing personal verifications for a user with submailbox capability.

11. “Playing 1st CA MENU item”. CCA failed to play the main mailbox’s Custom personal verification or the standard verification during a Call Answering session to a user with active submailboxes.
12, “Closing detfid after selection”. CCA failed to close the personal verification file for a user during a Call Answering session to a submailbox.
13. “Check for submbx exist”. In attempting to determine whether a particular submailbox is valid, an error occurred reading the user’s personal profile.

The return code isolates the cause.

Impact:

Case 1.	None to the user, but a heap loss may occur after the user disconnects; the channel will reload.
Case 2.	If this is the result of a full volume server the user will hear an error prompt and will be placed in the call answering empty state.
Case 3.	See Action.
Case 4.	A personal greeting or telset busy prompt is substituted with the system-provided standard greeting.
Case 5.	The user will hear “Your message cannot be taken at this time. Please try again later”.
Case 6.	The user will hear just the personal or standard greeting instead of the system greeting and the personal or standard greeting.
Case 7–8.	See Action.
Case 9.	The user will hear “Your command cannot be completed at this time. Please try again later”.
Case 10.	The caller leaving the message will not hear the customized personal verification for the main mailbox. Instead, standard prompts will be used; i.e., “To leave a message for [mbox #], press 1 or stay on the line”.
Case 11.	The user will hear nothing until the personal greeting is played for the main mailbox.
Case 12.	None to the user, but a heap loss may occur after the user disconnects, and the channel will reload.
Case 13.	None to the caller. The submailbox is assumed to exist and the message is deposited.

Action:

Case 1–2.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
Case 3.	Examine related SEERs for more information.

	Case 4.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
	Case 5.	If the problem persists, contact your Northern Telecom support organization.
	Case 7, 8.	Refer to subsequent class 56 SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your Northern Telecom support organization.
	Case 9.	Examine related SEERs. Contact your Northern Telecom support organization.
	Case 10.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
	Case 11.	Examine related SEERs. Contact your Northern Telecom support organization.
	Case 12, 13.	Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.
NT:	Case 1.	The user's profile may be corrupt. Check and rebuild it if necessary, using ad_util.
	Case 2–6.	The user's cabinet may be corrupt. Use MD_CM to verify and delete/rebuild the cabinet if necessary.
	Case 7.	The mailbox number in the SEER is actually the calling DN. Use MD_DR to look up the calling DN in the DR. If there are errors in the DR, notify the development organization.
	Case 8–9.	If the return code does not point to the problem, contact your Northern Telecom development organization
	Case 10–13.	The user's cabinet may be corrupt. Use MD_CM to verify and delete/rebuild the cabinet if necessary.

5637 Minor Error

Cause: CCA encountered a case which its software does not handle. If the text says: "Turn on timer", CCA tried to reset its delay timer with an undefined value.

Impact: This could cause a disruption of the normal sequence of delay prompts and affect the normal disconnect time out sequences. The entry of any command by the user may correct this condition.

Action:

Case 1	Contact your NT support organization and supply SEER printouts covering the hour before and the hour after this SEER occurred.
Case 2	Contact the owner of the mailbox shown and determine the sequence of commands that were given by the user to cause the problem. Contact your NT support organization.
Case 3, 4:	Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: These are internal errors within the software implementation. They are expected to occur only in faulty hardware conditions (either RAM or disk subsystem faults), or periods of extremely heavy loads (outside the supported engineering limits). Any other occurrence indicates a software bug. Contact your Northern Telecom development organization (NT-TOR) if these SEERs occur persistently.

5638 Minor Error

Cause: A problem occurred within CCA and not at a lower level.

Impact: The user may hear a system error prompt. Normal operation may proceed upon user entry or CCA may be shut down with the caller forwarded to the attendant as in the case of a non-user forwarded to CCA.

Action: Look at the accompanying SEERs for more information. Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT:

- If the SEER text indicates a problem while playing or recording, this is the result of an unexpected voice I/O event and may indicate a software bug. Contact your Northern Telecom development organization.
- If the SEER text indicates a problem closing a custom greeting, then the customer profile may be corrupt. Check for corruption and clean it up if necessary, using the MD utility.
- If the SEER text indicates a problem closing a menu, this means the user's message list may be corrupt; there may be a related class 5613 SEER indicating an underlying cause. Check for and clean up any corruption in the user cabinet using MD_CM.

5651 Minor Error

Cause: CCA encountered a call processing problem while trying a custom operator revert. The return code isolates the cause.

Impact: The user is not transferred to the custom operator. The user will hear the error prompt “Your connection cannot be completed at this time. Please try again later or contact your administrator.” If the user was in call answering, then the user will be returned to the place where 0 was pressed. If the user was logged in to a mailbox, then the user will be placed at the end of it. When using proprietary call answering, if the user is told the call can’t be completed, the user can still continue the mail session. If residential call answering is used the mail session ends as well as the call.

Action: Look up the return code for more information. If the code does not help, contact your NT support organization. One possibility is that the DN being transferred to is out of order. Try calling the DN directly.

NT: Use ad_util to enable the CCA debug flag, then check the console window during similar scenarios. The console window will show all call-progress information received from the switch. The “CallState” values can be found under the heading “Call Progress Status”, and the “otherInfo” values can be found under the heading “Supplementary Information to Call Progress Status”, both in Appendix 1 of this manual.

5653 Minor Error

Cause: CCA was unable to retrieve a digit that was entered by the user causing the digit to be lost. The return code isolates the cause.

Impact: The user may hear prompts or messages continuing to play when they should have been interrupted. Subsequent digits may be incorrectly interpreted as different commands.

Action: Contact the owner of the mailbox shown in the SEER and determine the scenario that caused the SEER. Look up the return code for specific information. If the cause of the problem is still unclear, contact your NT support organization.

NT: This can happen if the CCA task has trouble communicating with the VSS program. Either the VSS is dead or it has been improperly engineered during design. Check that all voice channels (VSS programs) are properly loaded by using the PRM_CONTROL utility and by ensuring that each channel can accept new calls. Disable and re-enable any channels not properly loaded (the particular channel that caused the SEER can be determined by the channel number printed in the SEER). If the problem still occurs when all channels are properly loaded, contact your NT

development organization (the IPC buffers in the VSS task may need to be re-engineered).

Class 58 Voiceless Server (VLS)

Introduction

The Voiceless Server (VLS) is a multiserver in the sense that it provides concurrent responses to multiple requests and therefore, does not need to be a client.

In particular, note the following:

- The VLS does not need to be (and cannot be) acquired.
- Most commands issued to the VLS can be processed independently from previous commands.
- The VLS supports multiple simultaneous sessions.

Reports

5801 Info Debug

Cause: Designer Information

Impact: None

Action: None

NT: None, due to problems with the BNR level VLS utility.

5802 Problem Error

Cause: Unable to open the DR, the system profile, the customer profile, or the network database. The SEER will indicate which one could not be accessed.

Impact: The Voiceless Server (VLS) may restart itself, or it may shut down and be restarted by the Program Resource Manager (PRM). Any incomplete ACCESS Application Programming Interface (API) sessions being handled by this VLS will receive an end-of-session event.

Action: Look up the return code and try the indicated action.

NT: Look up the return code and try the indicated NT action.

5803 Critical Error

Cause: Unable to allocate heap or buffers. This may be due to memory fragmentation.

Impact: The Voiceless Server (VLS) will not be able to start up. Program Resource Manager (PRM) will attempt to restart the VLS. Until it recovers, the VLS will not handle any ACCESS Application Programming Interface (API) requests.

Action: If the VLS does not start up, reboot the affected node to eliminate memory fragmentation.

NT: Change the system configuration to make more memory available to the VLS.

5804 Info Admin

Cause:
1. The VLS could not logon to the helix server.
2. The VLS is terminating.

Impact:
1. No VLS m_GetSerialNumAPI requests will be handled. This will be followed by SEER 5813. See SEER 5813.
2. The VLS will not be able to handle VLS API requests until it is restarted by the PRM.

Action:
1. Review preceding SEERs to determine why the VLS cannot logon to the helix server.
2. Review preceding SEERs to determine why the VLS is terminating.

NT:
1. Restart the VLS using the PLM_CONTROL.
2. None.

5805 Info Debug

Cause: There are not enough buffers to send VLS API results to the ACCESS Toolkit Communication Task (TC).

Impact: The API results will be lost. The API will make another request and should recover. The lack of buffers should be momentary.

Action: None

NT: None.

5806 Problem Error

Cause: The VLS API results cannot be sent to the TC because the TC itself cannot be located.

Impact: The API results will be lost and the API will make another request. The VLS will not be able to process API requests from the affected TC until it recovers.

Action: Review previous TC and VLS SEERs to determine why the TC cannot be located.

NT: Review previous TC and VLS SEERs to determine why the TC cannot be located.

5807 Problem Error

Cause: The VLS is unable to access the customer profile or the network database. The SEER will indicate which of the two could not be accessed.

Impact: The VLS API request will not complete successfully and will have to return code indicating an invalid customer number.

Action: Look up the return code indicated in the SEER and try the indicated action.

NT: Look up the return code indicated in the SEER and try the indicated NT action.

5808 Problem Error

Cause: The Verify Password API failed to

- open/close the user's personal profile
- open/close the user's cabinet

Impact: The results of Verify Password should not be trusted. The ACCESS application could retry.

Action: Look up the return code and retry the API, or restart the session.

NT: Look up the return code, investigate the states of the user's profile or cabinet, and use the available NT utilities to return the user's profile and/or cabinet to a sane state.

5809 Problem Error

Cause: An error occured while trying to execute the m_QueryMailbox or the m_GetMBoxStat API. If the text says:

1. "Cannot get cabinet counters," failed to get the count of the number of messages in the user's cabinet

2 . “Cannot read profile,” failed to read the user’s personal profile to get the external message counts and the MWI status

3. “Cannot get space usage details,” failed to get the voice and the text storage details for the user specified

4. “Cannot open personal profile,” failed in the attempt to open the user’s personal profile

5. “Cannot open cabinet,” failed to open user’s cabinet

6. “Cannot close personal profile,” failed to close the user’s personal profile

7. “Cannot free cabinet CB,” failure in the base VLS freeing cabinet CBs

8. “Cannot get cabinet CB,” failure in the base VLS obtaining a cabinet CB

Impact: 1. to 5. An error code is returned to the ACCESS application, and the API call fails.

6. and 7. The data is returned successfully to the ACCESS application.

7. The number of non-atomic VLS operations (m_GetMessageList and m_GetMessageUpdates) that can be handled may be reduced.

8. The API call fails and an error is returned.

Action: Look up the return code to determine the action required.

NT: If 8. persists, the VLS may need to be restarted if no more CCBs are available to handle the APIs.

5810 Problem Error

Cause: An error occurred while trying to execute the m_GetMessageList or the m_GetMessageUpdates API. The cause of this error depends on the SEER text:

1. “Failed to reset cabinet to,” could not get an updated view of the cabinet

2. “Failed to retrieve message <n>,” failed to get the information for the message indicated by n

3. “Cannot open cabinet,” failed to open the user’s cabinet

4. “Failed to get cabinet CB,” failure in the base VLS obtaining a cabinet CB

Impact: 1. to 4. An error code is returned to the ACCESS application, and the API call fails.

Action: Look up the return code to determine the action required.

NT: If 4. persists, the VLS may need to be restarted if no more CCBs are available to handle the APIs.

5811 Problem Error

Cause: An error occurred while trying to execute the m_SetMsgCounter API. The cause of this error depends on the SEER text:

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot open personal profile," failed in the attempt to open the user's personal profile
4. "Failed to read personal profile," failed to read the user's personal profile
5. "Failed to write the personal profile," failed to write the user's personal profile
6. "Cannot update MWI," failed to update the user's MWI
7. "Cannot close personal profile," failed to close the user's personal profile
8. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 6. An error code is returned to the ACCESS application, and the API call fails.

7. and 8. The data is returned successfully to the ACCESS application.

8. The number of the non–atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

Action: Look up the return code to determine the action required.

NT: If 1. persists, the VLS may need to be restarted if no more CCBs are available to handle the APIs.

5812 Problem Error

Cause: An error occurred while trying to execute the m_QueryMsg API. The cause depends on the SEER text:

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot retrieve file FIR," failed to retrieve the File Information Record
4. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 3. An error code is returned to the ACCESS application, and the API call fails.

4. The data is returned successfully to the ACCESS application.

4. The number of non–atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

Action: Look up the return code to determine action required.

NT: If 1. persists, the VLS may need to be restarted if no more CCBs are available to handle the APIs.

5813 Problem Error

Cause: An error occurred while trying to execute the m_FetSerialNum API. The cause depends on the SEER text:

1. "Cannot get heap memory," no CB available to perform operation
2. "Cannot get memory for SysRec," the NewVar for the system record failed
3. "Cannot read record for serial number," failed to read the system record
4. "Cannot free cabinet CB," failed to heap memory used

Impact: 1. to 3. An error code is returned to the ACCESS application and the API operation fails.

4. The operation succeeds and the data returned is correct. The number of non–atomic operations that can be handled may be reduced.

Action: Look up the return code to determine the action required.

NT: If 4. persists, the VLS may need to be restarted.

5814 Problem Error

Cause: An error occurred while trying to execute the m_SetMboxEHNId API. The cause depends on the SEER text.

1. "Cannot get cabinet CB," failure in the base VLS obtaining a cabinet CB
2. "Cannot open cabinet," failed to open the user's cabinet
3. "Cannot open personal profile," failed in the attempt to open the user's personal profile to read the old CLIENT ID
4. "Failed to read personal profile," failed in the attempt to open the user's personal profile to read the old CLIENT ID
5. "Failed to write the personal profile," failed in the attempt to write back the new CLIENT ID value to the user's personal profile
6. "Cannot close personal profile," failed to close the user's personal profile
7. "Cannot free cabinet CB," failure in the base VLS to free cabinet CBs

Impact: 1. to 5. An error code is returned to the ACCESS application, and the API call fails

6. and 7. The data is returned successfully to the ACCESS application.

7. The number of the non–atomic VLS operations (m_GetMessageList & m_GetMessageUpdates) that can be handled may be reduced.

Action: Look up the return code and try the indicated action.

NT: If 1. persists, the VLS may need to be restarted if no more CCBs are available to handle the APIs.

5815 Info Admin

Cause: A password violation occurred while attempting to verify a password.

Impact: The SEER reports a possible attempt to gain illegal access to a mailbox. Access to the mailbox will be disabled.

Action: Contact the owner of the mailbox to determine if the user had a problem accessing the mailbox and determine if access to the mailbox should be enabled.

NT: None.

5816 Problem Error

Cause: An error occured while executing the m_LocalToNetwork API.

Impact: The SEER reports an error trying to access the network database while trying to convert the mailbox. The API fails and an error return code is sent back to the ACCESS application.

Action: Look up the return code and determine the appropriate actions.

NT: None.

Class 59 Tape Driver (TP)

Introduction

The tape driver puts out SEERs to report errors encountered during tape accesses.

All numbers are given in decimal.

Reports

5900 Minor Error

Cause: A tape drive has reported an exception during an access.

The SEER description line is formatted as:

```
Tape # >  sense key: #  [FM]  [EOM]
```

FM and EOM indicate unexpected filemark and end of media respectively.

Use the sense key number to select the correct procedure below.

Impact: Disrupts the process that is using the tape drive, for example, software configuration, backup or restore.

Action:

Sense key	Meaning	Action
0	Unexpected file-mark	If “FM” appears in the SEER, an unexpected filemark has been encountered. This is most likely due to supplying the “$” argument to the tape server when the tape is actually non–bootable.
2	Not ready	Check that there is a cartridge in the tape drive and that the drive’s door latch is in the closed position.
3	Medium error	1. Clean tape drive head. 2. Retry opertation. 3. Replace tape if problem persists.

4	Hardware error	1. Check the cartridge to see if the tape has snapped. 2. If not, replace tape drive.
6	Unit attention	This sense key appears after tape cartridge insertion/removal or a SCSI bus reset. If you have not just inserted or removed a tape, look for termination/cabling problems; if none are found contact NT.
7	Write protected	1. Turn the write protect switch on the cartridge away from the “SAFE” position. 2. Viper 2150 tape drives cannot write DC300XLP cartridges
8	Blank check	1. Replace tape and retry. 2. If problem persists, replace tape drive.

NT: Same as action.

5901 Minor Error

Cause: The SCSI device driver has reported an exception during a tape access. The driver error encodes the type of exception.

Impact: Disrupts the process that is using the tape drive, for example, software configuration, backup or restore.

Action:

Driver error	**Meaning**
129	selection timeout
130	unexpected disconnect
131	bus reset
132	read parity error
133	timeout
255	driver queue full (SPM only)

This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68k board, the 68k board transition module, SCSI cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

NT: Same as action.

Class 60 Program Resource Manager (PRM)

Introduction

The Program Resource Manager (PRM):

- loads the operating system into all voice nodes
- starts all system programs
- helps programs to control (for example, start and stop) other programs

The impact varies greatly from one error to another.

These SEERs provide the return code for runtime and I/O errors.

Reports

6001 Critical Error

Cause: An unexpected state was encountered.

Impact: The PRM will try to correct this unexpected state.

Action: If the system appears affected, contact your Northern Telecom support organization.

NT: Run PRM_CONTROL to determine the state of each node and program. Take the necessary actions to correct the nodes and programs.

6002 Critical Error

Cause: A problem was detected in the STARTLIST. Either the STARTLIST are not there or the parameters in the file do not correspond to expected inputs.

Impact: If the STARTLIST is not there, the system will not run at all. If something is wrong in the STARTLIST, some programs may not be started and the service will likely be affected.

Action: Contact your Northern Telecom support organization.

NT: Edit the STARTLIST and correct the line affected.

6003 Major / Minor Error

Cause: Some program could not locate ‘PRM’ in Name Server.

Impact: The program appearing in the SEER listing could not request action from PRM.

Action: If the problem persist, contact your Northern Telecom support organization.

NT: Contact the development organization.

6004 Critical/Info Error

Cause: General tasking errors.

Impact: The program appearing in the SEER listing is not executed.

Action: Depending on the programs, some service may be lost. Please contact your Northern Telecom support organization. No action is necessary in the case of Info SEER, if there is no other SEER following this one.

NT: Determine the status of the programs using PRM_CONTROL. The problem may evident and you should be able to fix it up using PRM_CONTROL.

6005 Critical / Minor Error

Cause: The PRM could not register its name with the name server.

Impact: The system will not function.

Action: Power down the system, wait 30 seconds, power up the system. If the problem persist, contact your Northern Telecom support organization.

NT: Check the name server HEAP size.

6006 Minor/Critical Error

Cause: An unknown task Id was received by PRM.

Impact: A node may not reboot properly in the case of task completing, or PRM cannot send node state information to the task in the case of task registering to PRM.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to confirm nodes and programs are running.

6007 Critical Error

Cause: An invalid control request was received by PRM. Request can be made on behalf of the PRM to perform certain controls function, that is, reset nodes, turn audit controls

on and off, turn debug on and off. The request is out of range and is ignored. The return code will identify the requesting function.

Impact: The request is ignored.

Action: If the problem persist, contact your Northern Telecom support organization.

NT: The current PRM version may require an upgrade to support the newer application command calls.

6012 Critical/Major Error

Cause An error was detected in the STARTLIST. The string was too long. The return code will indicate the line number of the erroneous string.

Impact: The line containing the error will be ignored (the program in the STARTLIST is not executed).

Action: Restart the system. If this does not correct the problem, contact your Northern Telecom support organization.

NT: Edit the STARTLIST and correct the line affected.

6013 Major Error

Cause: Overlay program cannot be loaded

Impact: The node that tried to load the overlay will be restarted.

Action: If this problem persists, contact your Northern Telecom support organization.

NT: Start manual diagnostic on node, replace the node if found faulty.

6014 Critical/Minor/Info Error

Cause:
1. The diagnostic programs found a problem in one of the nodes during rebooting.
2. PRM could not get information from the agent of a node during autobuild.
3. Invalid MSP ID tries to register/deregister with the watchdog.

Impact:
1. The node will be restarted.
2. The autobuild may not get hardware information from PRM.
3. PRM will not get registered/deregistered with the watchdog.

Action: If this problem persists, contact your Northern Telecom support organization.

NT: Start manual diagnostic on node, replace the node if found faulty.

6015 Major/Info Error

Cause: The program name provided in the SEER could not be loaded on the node provided in the SEER, probably because the file was not found. Another SEER (with the same error code) is provided to display the return string from the failed load.

Impact: The program is not loaded.

Action: Reboot the node. If this does not correct the problem, contact your Northern Telecom support organization.

NT: Start manual diagnostic on cards; replace the cards if found faulty.

6017 Info Error

Cause: Auditing information is provided.

Impact: No impact.

Action: No action required.

NT: No action required.

6019 Critical/Minor Error

Cause: PRM received a request or message for an action to be executed on a node that does not exist.

Impact: A node might not be loaded with OS.

Action: Contact your Northern Telecom support organization.

NT: Contact the development organization.

6020 Minor/Info Error

Cause: PRM received wrong information or an extra message from the bootrom when booting the node.

Impact: The node is reset and another attempt is made at loading programs onto this node in the case of wrong information, or the extra message is ignored by PRM.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Start manual diagnostic, replace any equipment that is faulty.

6021 Minor Error

Cause: The PRM received an incorrect packet count when booting a node.

Impact: The node is reset and another attempt is made at loading programs onto this node.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Start manual diagnostic, replace any equipment that is faulty.

6022 Minor Error

Cause: When booting a node, transmission of a message to the BootROM for that node failed (this was detected in the timeout sequence).

Impact: The node may not be booted. It will be reset to try to correct the problem

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Start manual diagnostic, replace any equipment that is faulty.

6023 Major/Info Error

Cause: When booting a node, BootROM of the node failed to respond to PRM within an expected time period.

Impact: Attempts will be made to restart the node. Should these attempts fail, SEER 24 actions can be followed.

Action: No action is required until SEER 24.

NT: No action required.

6024 Info Error

Cause: The PRM has tried many times to reboot a node. The node may be faulty.

Impact: No service will be provided by the specified node. The PRM will stop attempting to reboot that node.

Action: Disable and enable the node. If the problem persists, contact your Northern Telecom support organization.

NT: This is probably a hardware problem. Try to disable and enable the node again. If that fails, have the hardware checked.

6025 Minor Error

Cause: PRM could not run a startup/bus/switchover diagnostic program.

Impact: Diagnostic could not be run. It is assumed that the equipment to be tested is working.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Contact the development organization

6026 Minor Error

Cause: Bus diagnostic program or switchover diagnostic program finished with an unknown return string.

Impact: Bus diagnostics may have passed. System will start rebooting.

Action: Restart the system. If this does not correct the problem, contact your NT support organization.

NT: Restart the system. If this problem persists, contact the development organization.

6027 Major Error

Cause: Bus diagnostic program or switchover diagnostic program failed.

Impact: System probably has problems.

Action: Restart the system. If the problem persists, contact your Northern Telecom support organization.

NT: Run the appropriate diagnostics. If the problem still persists, contact the development organization.

6028 Info Info

Cause: Report bus diagnostic status.

Impact: No impact.

Action: No action required.

NT: No action required.

6029 Major Error

Cause: BootROM diagnostics failed.

Impact: Corresponding node will not boot.

Action: Contact your Northern Telecom support organization.

NT: 1 Reboot the system by powering down then powering up.

2 If the problem persists, replace the MMP40 card on the failing node and reboot.

3 If the problem still occurs, contact Northern Telecom development.

6030 Minor/Info Error

Cause: 1 The task was ignored/killed by the PRM audit program. Tasks are regularly audited by the PRM to see if they are still running. This task did not respond to the audit.

The first time, a warning SEER is issued. If there is still no response, it will be killed.

2 The PRM was ignored/killed by the watchdog. The PRM is audited by the watchdog. The PRM did not respond to the audit. The first time, a warning SEER is issued. If there is still no response, it will be killed.

Impact: 1 If the SEER was a warning, no impact. Otherwise, the task indicated in the SEER list was killed by the PRM audit program. This task will be restarted.

2 If the SEER was a warning, no impact. Otherwise, the killed PRM will be restarted.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: If the task does not restart itself, restart it using PRM_CONTROL.

6031 Minor Error

Cause: 1 Tasks are audited by the PRM to determine their current state. This audit information could not be sent to the target task.

2 The PRM is audited by the watchdog. This audit information could not be sent to the PRM.

Impact: 1 The task is not audited. The PRM does not know the current state of this task. On the next audit session, the PRM will attempt another audit.

2 The PRM is not audited. The watchdog does not know the current state of the PRM. On the next audit session, the watchdog will attempt another audit.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: The return code indicates the tasking error of the SEND statement. This result will determine the tasking errors that are generated by the system.

6032 Minor Error

Cause: The audit table is full. This task could not be registered in the audit table.

Impact: This task is not audited during the normal audit cycle.

Action: This problem does not affect the operation of your system. If this problem persist, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to gather the number of outstanding tasks. Report this number to the development organization.

6033 Minor Error

Cause: The PRM audit program or the watchdog received unknown audit results from a task or the PRM.

Impact: The PRM audit program or the watchdog missed a response sent by a task. If this is a frequent occurrence, the task will be killed

Action: Monitor the SEER listing for tasks killed by the PRM audit program. If tasks are frequently killed by the PRM audit program, contact your Northern Telecom support organization.

NT: Contact the development organization.

6035 Critical Error

Cause: The PRM could not open the Hardware Database.

Impact: The PRM will not know the states of a given node. The system will likely not function.

Action: Reboot the system. If the problem persists, contact your Northern Telecom support organization.

NT: The Hardware Database is likely corrupt and needs to be restored.

6036 Info Error

Cause: The PRM could not close the Hardware Database properly. This may occur during system bootup or recovery operations.

Impact: This instance of the Hardware Database may or may not be closed. If the file is open, the sweeper will close it.

Action: If the problem persists, contact your Northern Telecom support organization.

NT: Call the development organization.

6037 Critical Error

Cause: The PRM has problem with opening the Hardware Database, or with reading and finding information in the Hardware Database.

Impact: Because certain information will not be available to the PRM, the PRM will not be able to perform updates or know the states of problem nodes. This may cause programs on a particular node not to load.

Action: Contact your Northern Telecom support organization.

NT: The Hardware Database, disk, or volume may be corrupt. Use MD_MA to modify or correct the corrupt data. organization.

6038 Information Status Information

Cause: The PRM is reporting on the current state of the node indicated in the SEER.

Impact: No impact.

Action: No action is required.

NT: No action is required.

6040 Critical Error

Cause: The System Profile Record could not be opened. This System Profile Record will indicate what action should be taken on fatal system errors.

Impact: Calls will always be accepted on fatal system errors (i.e. nonrecoverable disk error).

Action: North American users can ignore this problem. European users, please contact your Northern Telecom support organization if the problem persist.

NT: The System Profile Record is corrupt, attempt recovery with AD_UTIL

6042 Critical Error

Cause: The PRM could not read or close the System Profile Record.

Impact: Refer to SEER 6040 for read errors. If close has a problem, the file cannot be closed by the PRM. The sweeper will close it.

Action: North American users can ignore this problem. European users, please contact your Northern Telecom support organization if the problem persist.

NT: The Login record in the System Profile Record is corrupt, attempt recovery with AD_UTIL.

6043 Information Sys

Cause: The PRM is reporting the action that will be taken when a fatal system error occurs.

Impact: No impact.

Action: No action is required.

NT: The action can be reconfigured using AD_UTIL.

6045 Minor/Critical/Info Error

Cause: The various tasks that require node status information are not updated due to a SEND failure or an invalid node specified.

Impact: The System Status display may show an incorrect node state, the Voice Channel Maintenance and Diagnostic Controller may not know the correct state of the nodes.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: The return code indicates the tasking error of the SEND statement. This result will determine the tasking errors that are generated by the system. Contact the development organization.

6046 Major Error

Cause: The Hardware Database shows this node is unconfigured.

Impact: The node will not be brought up.

Action: Contact your Northern Telecom support organization.

NT: Configure the node and change the Hardware Database from an unconfigured state to a configured state. Modification of the Hardware Database can be done using MD_MA. The unconfigured node should be removed from the STARTLIST.

6047 Critical Error

Cause: 68010 OS file cannot be opened during system booting

Impact: OS will not be downloaded to 68010 nodes

Action: Try to reboot the system again. If the problem still exists, please contact your Northern Telecom support organization.

NT: 1. Check existance of the OS file located in
:BOOT100:BOOTVOLS:MMBOOTMN.SYS if booting from disk,
or in :RAM:MMBOOTMN.SYS if booting from tape.

2. If booting from disk and if the file does not exist, copy the OS file to the above location and reboot the system. If the file exists, reboot the system again. If problem persists, please contact NT design team.

3. If booting from tape and the OS file does not exist in the RAM, reboot the system from tape or replace the tape and then reboot. If the problem is persistent, please contact NT design team.

6048 Critical Error

Cause: Memory allocation for OS downloading fails

Impact: OS will not be downloaded to 68010 nodes

Action: Try to reboot the system again. If the problem still exists, please contact your Northern Telecom support organization.

NT: 1. Check memory usage on the prime node

2. If free memory size is larger than 1MB, reboot the system again. If problem persists, please contact NT design team.

3. If free memory size is less than 1MB, please contact NT design team.

6050 Critical Error

Cause: A problem occurred in the loading process. An attempt was made to send this information to the ProgInfo entry of some task (ie. Diagnostic Controller, Voice Channel Maintenance). The attempt failed due to a lack of memory buffers.

Impact: The tasks are not made aware of the load failure.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: Buffer requirements may require reconfiguration, contact the development organization.

6051 Critical Error

Cause: The Loader task of the node could not be started due to a tasking error (generated by the system).

Impact: Programs cannot be loaded to this node.

Action: Contact your Northern Telecom support organization.

NT: Reset the node manually or by using PRM_CONTROL. If this does not solve the problem, consider rebooting.

6052 Minor Error

Cause: A command that starts the loading sequence (programs onto a node) was not successfully sent.

Impact: Programs cannot be loaded to this node.

Action: Contact your Northern Telecom support organization.

NT: The return code indicates the tasking problem. If this problem persist, contact the development organization.

6055 Critical/Info Error

Cause: PRM received information from a node it does not know about.

Impact: Any command that can affects incorrect nodes will be ignored.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: Identify the faulty node. Run diagnostic to confirm the problem and replace if necessary.

6056 Critical/Minor Error

Cause: PRM timed out waiting for a disk to spin up.

Impact: The node will be rebooted and the disk is spun up again.

Action: If this problem persists, contact your Northern Telecom support organization.

NT: The return code indicates the SCSI ID. Contact the development organization.

6057 Minor Error

Cause: A tasking error occurred when the PRM was sending information to other programs. The most likely occurrence is the system running out of buffers.

Impact: Other programs will not receive up-to-date status information.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: Buffer requirements may require reconfiguration, contact the development organization.

6058 Critical Error

Cause: The nodes are frequently polled to determine their running state. In this problem, PRM has lost the polling response from the node.

Impact: The PRM will reboot the node.

Action: If this problem persist, contact your Northern Telecom support organization.

NT: Run the appropriate diagnostics on the node and replace,if necessary.

6059 Major Error

Cause: The master MSP node was disabled or had problems.

Impact: The other MSP node became the master. The system will work well in the case of the MSP node disabling.

Action: If it did not result from disabling the master MSP node, check to see if the node will come up in the Service Standby mode. If it will not come up, try to bring it back by disabling and enabling it. If the problem persists after many such attempts, contact your Northern Telecom support organization.

NT: Contact the development organization.

6075 Major Error

Cause: Bus controller is not set up properly. PRM cannot switchover.

Impact: System will not switch over.

Action: Contact your Northern Telecom support organization.

NT: Enable the switchover from the backup MSP using BC_PKG. Manually switchover using PRM_CONTROL. If the problem persists, contact your Northern Telecom development organization.

6098 Info Sys

Cause: Debugging information.

Impact: None

Action: Ignore the information.

NT: No action is required.

6099 Info Sys

Cause: Displaying status information.

Impact: No impact

Action: No action required

NT: No action is required.

Class 61 Maintenance Administrator (MA)

Introduction

The Maintenance Administrator (MA):

- maintains the integrity of the Hardware Database
- maintains Meridian Mail configuration
- acts as an agent for manipulation of Meridian Mail software

If any Meridian Mail component has to be adjusted or enabled, the MA program will be run. MA errors prevent a component from being used.

A Class 61 SEER usually contains:

- return code from the MA, HD, DD, VCA, or PRM
- Hardware Database location code

Other MA SEERs are reported in other hardware SEERs, such as HD or DD. These SEERs contain:

- return code
- test result from an Offline Test
- Hardware Database location code
- number of the DSP card. DSP card numbers start at 0.

Reports

6100 Info Admin

Cause: General maintenance information

Impact: None

Action: None

NT: None

6101 Minor Error

Cause: Illegal request to add a component. No parent component.

Impact: Component not added

Action: Verify that your request is correct and retry the operation. If the operation still fails, contact your Northern Telecom support organization.

NT: Check that the hardware database is sane. Verify that a system record exists.

6102 Minor Error

Cause: Component not in correct state for the request.

Impact: Request is not processed.

Action: Put component in correct state and repeat request.

NT: None

6103 Minor Error

Cause: A Delete, Unload, Disable, or Courtesy Disable operation failed on a child process. The SEER provides a return code and the location of the failed component.

Impact: The requested operation failed on a child component of the requested component, but the operation may have been successful on other child components before the error occurred.

Action: Try the command again. If the error persists, contact your NT support organization.

NT: Check the return code to find any possible error on other components. If there is, correct the situation and try again. The location of the child component is in the SEER.

6104 Minor Error

Cause: Diagnostics failed on a hardware component. See SEER for more information on which component failed.

Impact: This component and its children, and possibly its parent are marked faulty.

Action: Replace the faulty hardware components and re-execute the diagnostics.

NT: None

6106 Minor Error

Cause: The requested operation is not supported for this component type.

Impact: Requested operation not completed.

Action: If the requested operation should be supported on this component, retry the operation. If the operation is unsuccessful, disable the node and retry the operation. If the problem persists, contact your Northern Telecom support organization.

NT: Verify that the hardware database is correctly set up.

6108 Minor Error

Cause: A Load, Enable, or ForceState operation failed. The SEER provides a return code which is another MA code or a code from a lower layer, such as HD, DD, VCA, or PRM.

Impact: The requested operation failed on a child component of the requested component, whose location is provided in the SEER. The operation may have been successful on other components, including the requested component, before the error occurred.

Action: Try the command again. If the error persists, contact your NT support organization.

NT: Check the return code to find any possible error on other components. If there is, correct the situation and try again. The location of the child component is in the SEER.

6109 Minor Error

Cause: An operation was started but not completed. In case of offline test, hardware database is not changed.

Impact: Operation requested is not completed.

Action: Check SEER for reason why operation is not completed. Repeat request.

NT: Investigate SEERs to see if the node is crashing or if the hardware is possibly at fault.

6110 Minor Error

Cause: The hardware location code received by MA is invalid.

Impact: The requested operation is not completed.

Action: Retry the operation. If it is unsuccessful, contact your Northern Telecom support organization.

NT: Verify that the hardware database is correctly set up.

6111 Minor Error

Cause: A component modification was attempted with changed key information.

Impact: Requested operation was not completed.

Action: Correct the request and retry.

NT: None

6112 Minor Error

Cause: Action was requested on a VP card which contain no DSP in the correct state for testing.

Impact: Test not executed.

Action: Put DSP in correct state and repeat action.

NT: None

6113 Minor Error

Cause: Offline test failed on all DSP of the card tested.

Impact: VP card is marked faulty.

Action: Replace card.

NT: None

6114 Minor Error

Cause: The first chip of a DSP voice card, whose card number is provided, failed the Offline Test. The VPD return code isolates the cause.

Impact: The Offline test request failed.

Action: Depends on the return code from VCA or other components. Correct the situation and try again. If the problem persists, contact your NT support organization.

NT: Check the card, DSP, and voice port in the hardware database. If it is not configured, use MD_MA to change it to Inservice and reboot the system.

6115

Same as SEER 14 except the second chip failed instead of the first.

6116 Minor Error

Cause: A DSP has failed diagnostics.

Impact: The DSP is marked faulty and therefore cannot be used to service calls.

Action: Replace the faulty VP card and re-execute diagnostics.

NT: None

6122 Minor Error

Cause: Waiting for previous request on component to be completed.

Impact: Current request not processed.

Action: Try request later.

NT: None

6123 Minor Error

Cause: Waiting for node to be loaded.

Impact: None

Action: None

NT: None

6124 Minor Admin

Cause: Node could not be loaded.

Impact: Node marked faulty.

Action: Try replacing the 68K card.

NT: Look for any SEER indicating a software problem. If this does not help, follow the TLAC document on node bootup problems.

6125 Minor Error

Cause: Node in an unexpected state.

Impact: Diagnostics not executed.

Action: Try running diagnostics again. If problem persists, contact your Northern Telecom support organization.

NT: Disable Node. Execute 68K diagnostics again.

6126 Minor Error

Cause: No modem on SBC card to be tested.

Impact: None

Action: None

NT: None

6127 Minor Error

Cause: A hardware fault is detected on SBC card.

Impact: Port marked faulty.

Action: Replace card.

NT: None

6128 Minor Error

Cause: SBC diagnostics report some execution problem. See previous SEERs for actual fault.

Impact: Diagnostics not completed

Action: Follow the action suggested by the SEER which provides the actual fault.

NT: None

6130 Minor Error

Cause: MA/VM II communication problem.

Impact: Request not processed.

Action: Contact your Northern Telecom support organization.

NT: Disable the SPN node on which the maintenance action was performed. Repeat the maintenance action that failed.

6131 Minor Error

Cause: Hardware fault(s) detected on Utility Card.

Impact: Card marked faulty.

Action: Replace card.

NT: None

6132 Minor Error

Cause: RBD diagnostics report some execution problem. See previous SEERs for actual fault.

Impact: Diagnostics not completed.

Action: Follow the action suggested by the SEER which provides the actual fault.

NT: None

6133 Minor Error

Cause: No voice ports found on node.

Impact: None.

Action: None.

NT: None

6134 Info Admin

Cause: A card of the specified type which the software could not detect previously on the specified node, can now be detected.

Impact: None.

Action: None.

NT: None.

6135 Major Error

Cause: A card of the specified type that could previously be detected by software can no longer be detected.

Impact: This card and all of its children components are marked faulty.

Action: If the card is still seated in the system, test using offline diagnostics. If the card was removed, replace it to avoid service impact. Be sure to follow standard card replacement procedures.

NT: None.

6136 Minor Error

Cause: An error has occurred in attempting to update the hardware database. Check the return code for more information.

Impact: The hardware database is not correctly updated.

Action: If the operation is repeatable, then retry. If the problem still exists, then contact your NT support organization.

NT: Use MD_MA utility to update the failed hardware component. This is to verify that the hardware database can still be successfully updated. Upon successfully updating the hardware database, retry maintenance operation.

6137 Minor Error

Cause: Maintenance administrator cannot get node status from PRM.

Impact: This depends on the operation in progress. Typically the impact will be minimal.

Action: Examine the return code provided in the SEER for more information. Check that the node is up and running. If it is not, disable and re-enable the node. Repeat the maintenance procedures. If the problem persists, contact you NT support organization.

NT: Check that the node is properly configured in the hardware database.

6138 Minor Error

Cause: Attempt by the MA to communicate with RST_Modem failed.

Impact: The maintenance operation is terminated. If this problem occurs on a node, reboot then ignore it. The impact is minimal.

Action: Check that the problem node is up and running. If the node is running and this SEER is repeatedly printed, then it is possibly a startlist problem. If the problem node is not running, disable and re-enable the node. If the problem persists, contact your Northern Telecom support organization.

NT: Check that the RST_Modem is in the startlist for this node and that it is running.

6139 Minor Error

Cause: Maintenance software was informed by PRM of a problem with a diagnostics program.

Impact: The corresponding diagnostic is not fully executed.

Action: Retry the diagnostics. If unsuccessful, replace hardware components and try the diagnostics again.

NT: Verify that the node is loaded and that the hardware component being tested exists in the system. Check if the diagnostic program has crashed; if so, contact Northern Telecom's development organization (NT-TOR).

6140 Minor Error

Cause: PRM could not reset the requested node.

Impact: The maintenance operation is not completed.

Action: Investigate the return code (rc) provided in the SEER. Repeat procedure. If the problem persists, refer to the section on node recovery in the *Trouble Locating and Alarm Clearing Guide.*

NT: Seek information on node recovery in the *Trouble Locating and Alarm Clearing Guide*.

6141 Info Admin

Cause: The parent card is faulty in the hardware database.

Impact: Maintenance operation not performed.

Action: Run out-of-service diagnostics on the parent card.

NT: None.

6197 Minor Error

Cause: MA tasking problem.

Impact: Request not completed.

Action: Follow any recommendations of RC/SEERs. If unclear, contact your Northern Telecom support organization.

NT: Retry the operation that failed.

6198 Minor Error

Cause: PRM could not start program.

Impact: Request not completed.

Action: Check if the node is running; if it is not, then follow TLAC procedures to bring the node into a proper state. If the node is running, check the return code and related SEERs for more instructions for action.

NT: None

6199 Minor Error

Cause: Timeout waiting for diagnostic result.

Impact: Card marked faulty.

Action: Check SEERs if no good indication then replace card.

NT: None

Class 62 Test Serial (TS)

The TestSerial program is used for testing serial ports that reside on the SBC (68K) with an RS232 (NTGX06AB) transition module (TM). Diagnostics are supported for the following testing environments

- System StartUp diagnostics
- OutOfService diagnostics on the SBC card
- Manufacturing

Four tests are supported

- external loopback (manufacturing only)
- internal loopback (all environments)
- transmit data (manufacturing only)
- receive data (manufacturing only)

In the manufacturing environment, DiagCntl must be used to execute this program. In this environment the user has the ability to customize tests according to their needs. See related documents for more information.

For StartUp and OutOfService, the maintenance software automatically determines which TM (NTGX06AA or NTGX06AB) resides on the node. This program is executed only if an NTGX06AB is detected. The tests executed are

- Internal Loopback of Port 1
- Internal Loopback of Port 2
- Internal Loopback of Port 3

- Internal Loopback of Port 4

Should any of the above tests fail, the transmitting port and the SBC card are flagged as faulty. Successful execution of these diagnostics changes the faulty states to OutOfService.

6200 Info Admin

Cause: General TestSerial information.

Impact: None.

Action: None.

NT: None.

6201 Info Admin

Cause: I/O error occurred when writing to the file open against the transmit port.

Impact: Diagnostics not fully executed on all ports.

Action: Follow these steps:

1. If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.
2. If the node is not already in the OutOfService or Faulty state, disable it.
3. Execute or re-execute the OutOfService diagnostics on the SBC card.
4. If problem still occurs, then use any return codes (rc) included in the SEER and follow the action (if any) suggested by the rc..
5. If the problem still persists, contact your NT support organization.

NT: This could be a software defect. Verify that the above action was performed. Contact the NT Toronto Design Group.

6202 Info Admin

Cause: I/O error occurred when reading from the file open against the receive port.

Impact: Diagnostics not fully executed on all ports.

Action: Follow these steps:

1. If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.
2. If the node is not already in the OutOfService or Faulty state, disable it.
3. Execute or re-execute the OutOfService diagnostics on the SBC card.
4. If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.
5. If the problem still persists, contact your NT support organization.

NT: This could be a software defect. Verify that the above action was performed and contact the NT Toronto Design Group.

6203 Info Admin

Cause: The diagnostics failed on the specified port. The string received does not match the string transmitted.

Impact: The transmit port and SBC card are marked FAULTY.

Action: Follow the “Out-of-Service diagnostics on 68K card fail” procedure in the *Trouble-locating and Alarm-clearing Procedures* guide (NTP 557-7001-503).

NT: The stated action above should correct the problem. Verify that this procedure was followed completely.

6204 Info Admin

Cause: TestSerial requires the ‘Rst_Modem’ overlay for successful execution. The attempt to locate this task failed.

Impact: Diagnostics not fully executed on all ports.

Action: Follow these steps:

1. If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.
2. If the node is not already in the OutOfService or Faulty state, disable it.
3. Execute or re-execute the OutOfService diagnostics on the SBC card.
4. If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: Verify that the above action was performed. Check that the ‘rst_modem’ overlay is in the Startlist for this node. Check if there is a System resource problem by looking for other programs having similar problems with other tasks.

6205 Info Admin

Cause: I/O error occurred when opening a file to transmit data.

Impact: Diagnostics not fully executed on all ports.

Action: Follow these steps:

1 If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.

2 If the node is not already in the OutOfService or Faulty state, disable it.

3 Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: This could be a software defect. Verify that the above action was performed. Contact the NT Toronto Design Group.

6206 Info Admin

Cause: I/O error occurred when opening a file to receive data.

Impact: Diagnostics not fully executed on all ports.

Action: Follow these steps:

1 If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.

2 If the node is not already in the OutOfService or Faulty state, disable it.

3 Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: This could be a software defect. Verify that the above action was performed. Contact the NT Toronto Design Group.

6207 Info Admin

Cause: One of the ports requested to test is used for SEER printing. These ports are not tested using this program. Successful printing of SEERs is a sufficient test of this port.

Impact: This port is not tested by this program.

Action: Check that SEERs are successfully printed on this port.

NT: None.

6208 Info Admin

Cause: One or both port names are blank (”).

Impact: These port(s) are not tested.

Action: Use HWMOD to give these ports valid names in the hardware database and re-execute diagnostics on this node’s SBC card. If the problem still exists, contact your NT support organization.

NT: If the ports have valid names in the hardware database and the problem still persists, contact the NT Toronto design group.

6209 Info Admin

Cause: Could not open, read, or close the system OrgProfile file.

Impact: All ports are tested.

Note: Active SEER printer ports are not normally tested. If one of the ports that is being tested is the SEER printer port, then it may fail diagnostics.

Action: Check SEERs for similar problems reported from other components and follow any action suggested there. If this does not help, then follow these steps:

1. If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.
2. If the node is not already in the OutOfService or Faulty state, disable it.
3. Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: If the above action was followed completely and the problem still persists, then contact the NT Toronto design group.

6210 Info Admin

Cause: Argument string received by this program does not have a diagnostics ID.

Impact: The diagnostic is not executed.

Action: If the problem persists, follow these steps:

1 If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.

2 If the node is not already in the OutOfService or Faulty state, disable it.

3 Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: If the above action was followed completely and the problem still persists, contact NT Toronto design group. This is potentially a software defect.

6211 Info Admin

Cause: Argument string received by this program does not have a ‘SEER flag’.

Impact: The diagnostic is not executed.

Action: If the problem persists, follow these steps:

1 If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.

2 If the node is not already in the OutOfService or Faulty state, disable it.

3 Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

NT: If the above action was followed completely and the problem still persists, contact NT Toronto design group. This is potentially a software defect.

6212 Info Admin

Cause: Argument string received by this program is not of the expected format.

Impact: The diagnostic is not executed.

Action: If the problem persists, follow these steps:

1 If the failure occurs during startup diagnostics, then wait until the system is fully booted and move to step 2. If the failure occurred during OutOfService diagnostics, then move to step 2.

2 If the node is not already in the OutOfService or Faulty state, disable it.

3 Execute or re-execute the OutOfService diagnostics on the SBC card.

4 If problem still occurs, then use any return codes (rc) included in the SEER and follow any suggested action.

5 If the problem still persists, contact your NT support organization.

Note: If problem occurs in a manufacturing environment, then check the parameter string and retry the operation.

NT: If the above action was followed completely and the problem still persists, contact the NT Toronto design group. This is potentially a software defect.

Class 63 RS-232 Service Module (RSM)

Introduction

The RS-232 Service Module or RSM Unit provides the software interface to the RS-232 ports.

Impact of RSM errors varies. Fatal errors disable the RS-232 functions.

A Class 63 SEER usually contains text only.

Reports

6300 Minor Error

Cause: A fatal error occurred in RSM operation. The RSM card may be out of position or it is defective.

Impact: RSM functions will not be available.

Action: Check the position of the RSM card. If it is fine, run diagnostics on the card. Then, correct the error and reboot the system.

NT: Same as action

6301 Minor Error

Cause: The RSM clock returned INVALID TIME to user.

Impact: System and call functions may be affected.

Action: If this SEER persists, check the RSM clock battery and run diagnostics on the RSM card. Then, correct the error and reboot the system.

NT: Same as action

6302 Minor Error

Cause: The RSM clock has been reset. Reset time difference is given out in seconds.

Impact: If you manually adjusted the time, this SEER is to be expected and nothing is wrong. If you did not adjust the time, this SEER points to an error with time.

Action: Check the RSM clock battery and run diagnostics on the RSM card.

NT: Same as action

6303 Minor Error

Cause: Nil time stamp returned to user because system ran out of buffers.

Impact: Minor. User could not get correct time stamp.

Action: This SEER is a warning notifying the system administrator that some program did not receive the time properly. It can assist in the investigation of other problems. This problem should not occur continuously. If the error persists, contact your Northern Telecom support organization.

NT: A problem of this sort could point to an engineering problem of some sort. The site should be analyzed for some usage pattern that far exceeds what other sites are experiencing.

6304 Minor Error

Cause: RSM major alarm turned on by the RSM software.

Impact: Hardware failure.

Action: Use boot diagnostics to check RSM. If the alarm persists the RSM card must be replaced.

NT: Same as action

6305 Minor Error

Cause: RSM minor alarm turned on by the RSM software.

Impact: Minor. No problems indicated.

Action: Contact your NT support organization to turn off the alarm.

NT: Use rsm_util to turn off the alarm. If the alarm persists, the RSM card must be replaced.

Class 64 Operating System Program (OSP)

The Operating System Program (OSP) is the heart of the Meridian Mail system. This program operates the system by delegating work to the other programs, such as PRM and VCM. This Operating System also interfaces with the hardware.

The SEERs that are produced in this class deal with the ability of the Meridian Mail system to provide redundancy and recover from hardware and software errors.

However, in many cases where a problem occurs in this program, there is no way to have SEERs printed or recorded. Any such failure is reported directly to the attached terminal. Print this information out and contact your NT support organization.

6401 Major Error

Cause: Applicable only on MSM systems.
The specified MSP node has lost physical detection of the Bus Controller card on the other MSP node. This will occur during normal maintenance when either the Bus Controller card or Bus Controller Transition Module (BCTM) is removed, or the cable connecting the BCTMs is disconnected. If this occurs unexpectedly, there may be a problem with any of the above-mentioned hardware.

Impact: The system should continue to run, but redundancy is lost because MSP switchovers can no longer occur.

Action: Check the above mentioned cards and cables. If the problem persists, try replacing the cards and/or cables. If the problem still persists, call your support organization.

NT: As above.

6402 Info System

Cause: Applicable only on MSM systems.
The specified MSP node can detect the Bus Controller card on the other MSP node.

Impact: If MSP redundancy should be available at this time, MSP switchovers will be automatically reenabled and the system redundancy restored.

Action: If one of the MSP nodes is OutOfService, it will have to be enabled before the system redundancy is restored.

NT: As above.

6407 Major Error

Cause: Applicable only on MSM systems.
Firmware release on the Bus Controller card is incompatible with current release of the software. This is caused by either a manufacturing problem with the Bus Controller card, or a software release control problem.

Impact: System may not run reliably.

Action: Contact your support organization. Either the Bus Controller card or the software release should be changed as soon as possible.

NT: Firmware release on the Bus Controller card is very rarely changed. This is most likely a problem with the Bus Controller card. Try another card and return the original card for checkout.

6410 Info Error

Cause: Applicable only on MSM systems.
Error occurred in sending status update information to other programs (VCM).

Impact: No impact on the system operation.

Action: This should only occur when many other Class 41 (VCM) or Class 34 (VCA) problems are occurring. Once those have been dealt with, the status information should be updated properly.

NT: If this persists when no other problems are occurring, call the NT support organization.

6411 Major Error

Cause: Applicable only on MSM systems.
Attempt to enable MSP switchovers failed because the backup MSP could not detect the Bus Controller card on the active MSP.

Impact: MSP switchovers cannot be enabled. Loss of system reliability in the case that active MSP node encounters problems. Call Processing and terminal I/O will still work properly.

Action: Check that the Bus Controller Transition Modules (BCTM) are inserted properly on both active and backup MSP nodes, and the cable connecting the BCTMs is on properly. If the problem persists, replace BCTMs and cable. If problem still persists, call your support organization.

NT: Same as above.

6412 Info System

Cause: Applicable only on MSM systems.
Active Bus Controller is switching to Internal BC Timing Mode. This may occur because of a higher request to do so. If this occurred because of an error, other Class 64 SEERs will be output specifying the problem.

Impact: MSP switchovers are disabled until the Bus Controllers on active, and the backup MSPs are in sync again (1 to 2 minutes).

Action: None.

NT: None.

6413 Info System

Cause: Applicable only on MSM systems.
Active Bus Controller has been successfully synced into External T1 clocking source.

Impact: System is running as it should.

Action: None.

NT: None.

6414 Info System

Cause: Applicable only on MSM systems.
Active Bus Controller has been successfully synced into External T1 clocking source for long enough period of time that, if the problem in External T1 source occurs, the Bus Controller will go to Holdover Mode rather that revert to its own Internal BC Timing.

Impact: System is running as it should.

Action: None.

NT: None.

6415 Major Error

Cause: Applicable only on MSM systems.
Some problem has occurred in communication between the Bus Controller card and the OS software. The card is either sending invalid messages, or has stopped sending messages and a timeout has occurred.

Impact: The MSP node that the Bus Controller card is on should no longer be considered reliable.

Action: Disable the MSP node that the Bus Controller card is on and rerun diagnostics on the card. If the problem persists, replace the card.

NT: same as above.

6416 Info System

Cause: Applicable only on MSM systems.
Backup Bus Controller card has synced into active Bus controller card.

Impact: System redundancy is now available (MSP switchovers will be enabled).

Action: None.

NT: None.

6417 Minor Error

Cause: Applicable only on MSM systems.
Active Bus Controller going to Holdover Mode because it can no longer track the External T1 clock source.

Impact: The system will run properly and redundancy is maintained. However, the MSM system is no longer completely in clock sync with the external source.

Action: The most likely cause is a problem with the External T! source setup. Check that the External T1 setup and connections are correct. If the problem persists, disable the active MSP node to do an MSP switchover. If the problem does not reoccur with this setup, run diagnostics on the original Bus Controller card (on the current backup MSP node) and try replacing that card. If the problem persists, call your support organization.

NT: Same as above.

6418 Major Error

Cause: Applicable only on MSM systems.
Backup Bus Controller going to Holdover Mode because it can no longer track the active Bus Controller.

Impact: System redundancy is lost because MSP switchovers cannot occur and are disabled.

Action: The most likely cause is a problem with the clock source the Bus Controller is trying to track. If the External T1 clocking is enabled, check that the External T1 setup and connections are correct. If the problem persists, disable the backup MSP and run diagnostics on the Bus Controller card. If there are problems, replace the card. It the problem persists, call your support organization.

NT: Same as above.

6419 Info Error

Cause: Applicable only on MSM systems.
Active or backup Bus Controller is having problems tracking the clock source it should be tracking., but is still able to do it. The message is only a warning.

Impact: System operation remains the same.

Action: This problem may occur very intermittently and is not considered serious. However, if you find that it persists, it is a warning that problems may arise. Look at solutions in SEERs 6417 and 6418 for possible appropriate action.

NT: Same as above.

6498 Info Debug

Cause: General debug information useful only to system designers.

Impact: None.

Action: None.

NT: None.

6499 Info System

Cause: General system information.

Impact: None.

Action: None.

NT: None.

Class 65 Debugger (DB)

Introduction

The Debugger is a tool used by designers to debug programs. The Debugger is also used by craftspeople (RSC) to find out about system resources, such as available memory. This program can also be used to change the contents of memory and to terminate programs.

Debugger output is displayed at the terminal. Because this is not a permanent record, Debugger output is reformatted into Class 65 SEERs which are sent to the printer. Each line of Debugger traceback is a separate SEER.

A Class 65 SEER usually contains a trace sequence number and trace output.

Reports

6502 Minor Error

Cause: Improper memory area was accessed by software, causing ESBC sanity timer to become activated.

Impact: Possible performance degradation.

Action: This problem should be reported in conjunction with any other problem that warrants Northern Telecom support organization help. No action is required unless other problems are identified.

NT: Same as action

6599 Minor Error

Cause: Debugger traceback output. The number followed by the word DBGTRACE identifies the trace sequence number.

Impact: If the program is responsible for a voice session then that voice session will be abruptly terminated. If the program is a multiserver then that service will be temporarily down. If the program is essential to a node's operation then a node will be temporarily down.

Action: Collect the trace identification information and contact your NT support organization.

NT: The Northern Telecom support organization should pass the trace identification information to the responsible designer. Included with this information should be details concerning software release, hardware setup, and the frequency of the problem. Associated SEERS should also be sent.

Class 66 Disk Manager (DM)

Introduction

The disk manager is the operating system component that maintains disk configuration. It puts out SEERs to report errors encountered during disk accesses. If disk shadowing (also known as disk mirroring) is installed, the disk manager performs related maintenance operations and puts out SEERs to log these actions.

DM SEERs identify disks by node number and SCSI ID. On non-SPM platforms such as EC, Classic, and Card Option, there is only one SCSI bus; SCSI IDs run from 0 to 7. There are two buses on SPMs; SCSI IDs on bus 0 run from 0 to 7, those on bus 1 run from 8 to 15.

All numbers are given in decimal.

The following Maintenance Procedures NTPs contain disk replacement procedures for the various platforms:

- NTP 297–7001–502 *SPM Maintenance Guide*
- NTP 555–7011–500 *Options Maintenance Guide*
- NTP 555–7041–250 *Modular Option Installation and Maintenance Guide*
- NTP 555–7051–250 *Modular Option GP Installation and Maintenance Guide*
- NTP 555–7061–250 *Modular Option EC Installation and Maintenance Guide*

Reports

6600 Info Admin

Cause: Syncing is the disk shadowing operation to bring a new disk online. This SEER logs the beginning of a sync operation.

Impact: None

Action: None

NT: None

6601 Info Admin

Cause: This SEER logs the completion of a sync operation.

Impact: None

Action: None

NT: None

6602 Case 1. Major Case 1. Error
Case 2. Info Case 2. Admin

Cause: One of the disks in a shadowed disk pair has gone down.

1. The disk is taken down by the system (this report follows a SEER 6603/6604.)
2. The disk is taken down by a utility.

Impact: Only a single copy of the data in the shadowed pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

Action: If this SEER appears during normal operation, replace the failed disk and sync it from the survivor. If this SEER appears during disk pack or during 68k transition module replacement, continue to follow the replacement procedure.

If you manually disabled the disk, manually enable it.

NT: Same as action

6603 Major Error

Cause: A disk drive has reported an exception during a file system disk access. The sense key encodes the type of exception, and is standard across all disk drives. The error code gives additional information about the exact cause of the error. A block number may also be present. See Appendix A for a complete list of SCSI device sense keys and error codes.

Impact: Medium and hardware errors disrupt service on systems without disk shadowing.

Action:

Sense key	Meaning	Action
1	Recovered error	A large number of recovered errors indicate that the device should be replaced.
2	Not ready	The disk has not been spun up yet.
3	Medium error	Replace disk
4	Hardware error	Replace disk
5	Illegal request	Possible software problem; contact NT.
6	Unit attention	Look for termination/cabling problems; if none are found contact NT.
7	Write protected	Remove write protect jumper from disk.

NT: Same as action

6604 Major Error

Cause: The SCSI device driver has reported an exception during a file system disk access. The driver error encodes the type of exception.

Impact: Disrupts service on systems without disk shadowing.

Action:

Driver error	Meaning
129	selection timeout
130	unexpected disconnect
131	bus reset
132	read parity error
133	timeout
255	driver queue full (SPM only)

This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68k board, the 68k board transition module, SCSI cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

NT: Same as action

6605 Minor Error

Cause: A disk drive has reported an exception during a disk manager disk access. The sense key encodes the type of exception, and is standard across all disk drives. The error code gives additional information about the exact cause of the error. A block number may also be present. See Appendix A for a complete list of SCSI device sense keys and error codes.

Impact: Medium and hardware errors disrupt service on systems without disk shadowing.

Action:

Sense key	Meaning	Action
1	Recovered error	A large number of recovered errors indicate that the device should be replaced.
2	Not ready	The disk has not been spun up yet.
3	Medium error	Replace disk
4	Hardware error	Replace disk
5	Illegal request	Possible software problem; contact NT.
6	Unit attention	Look for termination/cabling problems; if none are found contact NT.
7	Write protected	Remove write protect jumper from disk.

NT: Same as action

6606 Minor Error

Cause: The SCSI device driver has reported an exception during a disk manager disk access. The driver error encodes the type of exception.

Impact: Disrupts service on systems without disk shadowing.

Action:

Driver error	Meaning
129	selection timeout
130	unexpected disconnect
131	bus reset
132	read parity error
133	timeout
255	driver queue full

This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68k board, the 68k board transition module (SPM only), SCSI

cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

NT: Same as action

6607 Major Error

Cause: The disk manager cannot access a member of disk pair during initialization.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

Action: Look for a preceding 6605 or 6606 SEER and act accordingly.
This SEER almost always indicates some hardware failure along the SCSI datapath, which consists of the 68k board, the 68k board transition module (SPM only), SCSI cabling, disk/tape drive, and disk/tape power converter. Look for and clear hardware fault in SCSI subsystem.

NT: Same as action

6608 Major Error

Cause: The disk manager cannot determine which member of a disk pair is more current.

Impact: The disk manager arbitrarily picks the first member. This may or may not be the correct choice.

Action: This SEER can come out if a node boots up with a pair of unsynchronized disks during a disk replacement procedure. Sync from the correct disk and reboot the node.

NT: Same as action

6609 Major Error

Cause: The disk manager finds that a disk pair is not in sync during initialization.

This SEER can appear if a disk goes down and its node is subsequently rebooted with the disk still in place.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

Action: Check earlier class 66 SEERs to find out why the disk was offline.

NT: Same as action

6610 Major Error

Cause: A disk pair has just been synced on the partner node of the node producing the SEER. However, the disk manager on the latter node is unable to independently detect this state.

Impact: Data corruption may occur if the node is rebooted.

Action: Check for hardware, especially cabling, faults along the SCSI bus.

NT: Same as action

6611 Info Admin

Cause: If a member of a synced disk pair goes down and is not brought back up, this SEER will come out every hour as a reminder.

Impact: Only a single copy of the data in the mirrored pair is now available. A failure in the surviving disk will disrupt service. Read throughput is also halved.

Action: Bring the disk back up.

NT: Same as action

6650 Minor Error

Cause: A disk sync invoked from the MMI has failed. This SEER contains a return code that indicates where the sync failed. Possible values are as follows:

6700 out of memory
6710 cannot determine amount to sync
6711 cannot initialize destination disk
6712 cannot enter sync mode
6713 sync primitive failure
6714 cannot leave sync mode

Impact: Cannot sync the disk pair.

Action: Look for and clear hardware fault in SCSI subsystem.

If RC 6700 occurs when syncing online, try the following:

- unload unnecessary utilities
- use a smaller transfer size

RC 6710 often has an associated 6605/6606 SEER. Follow the actions specified for these SEERs.

RC 6711 – check that the destination disk is writeable:

1 From scsi_util enter

- select *x*
- copy *x x* 0 0 where *x* is the SCSI ID identified in the SEER

2 Check that the disk is jumpered correctly.

RC 6712—Call ETAS

RC 6713 often has an associated 6605/6606 SEER. Certain early vintages of 3.5–inch disks cause RC 6713 when synced with sufficiently large transfer sizes. Examples are DSP3105 Rls T370 and ST11200N Rls 8240, 8334

1 Check that the SCSI bus is correctly terminated.

2 Check that the disks are at least at the minimum vintage.

RC 6714—call ETAS

NT: Same as action.

Class 68 David ESDI Emulation Handler (DEEH)

Introduction

The David ESDI Emulation Handler (DEEH) software was created to emulate ESDI functionality so that the Meridian Mail system is able to work with Option 11. The functions are provided by communicating with Meridian 1 through two data channels. The first channel is the AML, which offers control and monitors the status of phone lines coming to the Meridian Mail. The second channel is for the man-machine interface (MMI), which allows the administration of Meridian Mail.

Reports

6800 Info Error

Cause: An invalid command was received from the Meridian 1 that is not supported by Meridian Mail.

Impact: The impact is dependent on the Meridian 1 command. Any Meridian 1 command that is not supported by Meridian Mail will be detected early in the development cycle; hence, the impact should be minimal.

Action: Report the incident to Northern Telecom's support organization.

NT: Report the incident to Northern Telecom's development group (NT-TOR) for further investigation.

6801 Info Error

Cause: The AML task did not pick up an AML message in time for proper execution.

Impact: The user hears a ring-connect silence when trying to access Meridian Mail.

Action: If the error persists, contact a Northern Telecom representative.

NT: Contact Northern Telecom's development group (NT-TOR) for further assistance.

6802 Info Error

Cause: The receiving queue for messages from Meridian 1 is full.

Impact: There is up to a 3-second delay in processing the AML messages, that is, answering then hanging up.

Action: If this error persists, contact a Northern Telecom representative.

NT: Contact Northern Telecom's development group (NT-TOR) for further assistance.

6803 Info Error

Cause: An unknown packet was received from the Meridian 1 that is not supported by Meridian Mail.
The text string states "Unknown packet received" followed by the packet ordinal number.

Impact: The impact depends on the type of Meridian 1 packet received. If an Meridian 1 packet is used frequently, the error will be caught early in the development cycle; hence the impact should be minimal.

Action: Report the incident to Northern Telecom's support organization.

NT: Report the incident to Northern Telecom's development group (NT-TOR) for further investigation.

6804 Info Error

Cause: The Meridian 1 part of Option 11 did not respond to transmissions from the Meridian Mail.

Impact: If the Meridian 1 is running, then a ring-no-answer or a ring-connect-silence is heard when accessing Meridian Mail.

Action: Check the Meridian 1 for any error messages. If the Meridian 1 is fine, attempt to clear the problem by rebooting Meridian Mail. If the problem persists, replace the 68-kB card of the Meridian Mail.

NT: Same as action

6805 Info Error

Cause: The AML task is ready to start operation.

Impact: The system can start taking calls.

Action: None

NT: None

6806 Info Error

Cause: The AML link is not established.

Impact: You will hear ring–no-answer.

Action: It is possible to get this SEER under normal operations. Check the Meridian 1 for any error messages. If the Meridian 1 is fine, attempt to clear the problem by rebooting Meridian Mail. If the problem persists, replace the 68-kB card of the Meridian Mail.

NT: Same as action.

6807 Info Error

Cause: Meridian 1 is not accepting Meridian Mail AML packet transmissions.

Impact: You will hear ring–no-answer.

Action: Check the Meridian 1 for any error messages. If there are no Meridian 1 error messages, reboot the Option 11 to correct the system. If the problem persists, arrange to have the 68-kB card of the Meridian Mail replaced.

NT: Same as action

Class 69 BootROM Diagnostics Utility (BRD)

The bootROM diagnostic utility program is only supported for designers and test engineering. Please refer to the test engineering users guide for more information.

6900 Type: **Admin** Severity: **Info**

Cause: Bootrom diagnostics ha**ve** been started on the specified node.

Impact: None.

NT: None.

6901 Type: **Admin** Severity: **Info**

Cause: Options specified are not correct.

Impact: Requested diagnostics were not executed.

NT: Check the test engineering users guide. Correct options and retry operation.

6902 Type: **Admin** Severity: **Info**

Cause: Invalid node number specified.

Impact: Requested diagnostics were not executed.

Action: Retry operation with a valid node number.

6903 Type: **Admin** Severity: **Info**

Cause: Diagnostics can be executed only when the node is in the standby state. This node is not in standby.

Impact: Requested diagnostics were not executed.

NT: Use the ‘d’ command to put the node in the standby state, then execute diagnostics. Refer to the test engineering users guide if necessary.

6904 Type: **Admin** Severity: **Info**

Cause: This operation can be performed only when the node is in the standby state. This node is not in standby.

Impact: The requested operation is not completed.

NT: If the node is not already in the up state then follow the test engineering users guide procedure to take the node down. Then bring the node up.

6905 Type: **Admin** Severity: **Info**

Cause: The requested diagnostics failed.

Impact: None.

NT: Refer to the SEERs for the cause of the failure. This board requires some service.

6906 Type: **Admin** Severity: **Info**

Cause: This node is already down.

Impact: The requested operation was not executed.

NT: None.

6907 Type: **Admin** Severity: **Info**

Cause: A tasking error has occurred.

Impact: The request is not completed.

NT: Check the SEERs for which TASK failed then check the state of that TASK. A node or system reboot may be required to restore the task.

6908 Type: **Admin** Severity: **Info**

Cause: The PRM reported an error when attempting to start diagnostics.

Impact: Requested diagnostics were not executed.

NT: Check the SEERs for the PRM failure reported. The action require will depend on the RC received. Perform any actions which may be obvious from the description of the return code. Check the node state, the startlist etc. As a last resort you may try rebooting the node or system.

6909 Type: **Admin** Severity: **Info**

Cause: This program could not register with the name server.

Impact: This program will not be able to receive diagnostics results.

NT: Reboot this node.

Class 70 Hospitality Administration Server (HAS)

Introduction

Hospitality is a Meridian Mail (MM) and Meridian 1 feature which is provided for use by Hotel/Motel properties to provide staff and guests with voice messaging capabilities. Staff are equipped with full featured MM. Guests are provided with a simplified user interface with specific options to make message retrieval as simple as possible. The Hospitality package also provides a data link to a hotel's Property Management System. This link allows integration of the Hotel's front desk consoles with the MM system. On MM, the Hospitality component includes three new pieces of software: the Hospitality Administration Server (HAS), the GAC, and PLH.

The HAS executes the commands passed to it from the Hotel's Property Management System (PMS) and the MM system's Guest Administration Consoles (GAC). These commands include guest Check In, guest Check Out, guest Copy MailBox, guest ReCheckIn, setting of guest phone Message Waiting Indicators, querying of guest mail boxes, management of the Post Check Out message retrieval facilities, and so on.

When HAS identifies problems, it issues the SEER messages described in this chapter. In some places, more than one message have been grouped under one SEER identification code. In these cases, the codes are used as general guides to what is taking place in the HAS. The most important information can be retrieved from the text of the SEER with the result returned as SEER return codes: these are described below

SEER class 70 (HAS) return codes

00	Everything is ok
01	Tasking error occured
02	Invalid TO DN
03	Invalid FROM DN
04	Invalid command received
05	Used on recheckin if no room is found
06	Error changing guest name
07	Error processing a check–in command
08	Error processing a checkout
09	Error while processing a recheck–in
10	Error while trying to copy a mailbox
11	Error getting voice counts
12	Error setting the MWI on
13	Error setting the MWI off
14	Error accessing the post–checkout cabinets
15	Error while rebuilding the PCORList
16	Mailbox specified is not a guest mailbox
17	PCO entry is currently locked
18	Hospitality option is turned off in organization profile
19	Room status is not set
20	DR returns an error on the file system
21	Room is already occupied on check–in
22	The room is vacant
23	General error; system is busy, and you should try again
24	COPY command has the same DNs/mailboxes

Reports

7001 Depends on context Depends on context

Cause: An error was detected while the Hospitality software was initializing.

Impact: In many cases the Hospitality component will provide adequate defaults. If certain directories cannot be found, or files cannot be opened, or subprocesses cannot start, then the Hospitality component may not be functional.

Action: If the defaults are not desirable or the software will not be functional, then contact your Northern Telecom support organization to update your Startlist.

NT: The Startlist parameters for HAS may not have been provided or only partially provided. Evaluate the requirements of the system and add the correct parameters for HAS. The system files may be corrupt and cannot be accessed. The system may not have been configured as a Hospitality system. The system may be out of memory and no subtasks can be started.

7002 Information System

Cause: HAS received a command from the PRM task indicating that HAS should kill itself if it is not needed, or it should be shut down.

Impact: If it is killed, no cleanup is attempted. If it is shut down, all files are closed.

Action: Some external event normally causes PRM to request a kill or shutdown. Using the SEERs, attempt to determine what caused the initial problem and rectify it.

NT: If the problem persists, contact your Northern Telecom development organization (NT-TOR).

7003 Minor Admin

Cause: An internal queue used to store commands from the PMS is full. The commands in the queue are waiting to be processed.

Impact: The real waiting time that the PMS is experiencing will be impacted. It will slow down to wait for the HAS, to free up space in the queue.

Action: One way to speed up the processing of commands is by starting another command processing task. There can be up to four command processing tasks that are controlled by a parameter on the Startlist entry for HAS. Contact your NT support organization if the problem persists.

NT: If there is memory on the system, then up to four command processing tasks may be started. This is as fast as the HAS can run. If the problems persist, then inform the development organization (NT-TOR). They may be able to reconfigure the queue size.

7004 Minor Error

Cause: The HAS failed to allocate its memory segment. This is a critical operation. The system may be out of memory.

Impact: The HAS will not be functional without this memory segment.

Action: Check to see if any extra programs are running on the system, and shut them down if they are not needed. There may not be enough memory. A lower level component may have failed. Check the SEERs and contact your NT support organization.

NT: The system may not have sufficient memory. Make sure extra programs do not appear in the Startlist. Remove any features or packages that are not necessary, (for example, an extra package such as “md_mt”). If you are desperate for memory, a voice channel may be taken down to acquire more memory.

7005 Major Error

Cause: The HAS could not get the required information from the customer profile.

Impact: The HAS is lacking required runtime parameters. The HAS will not be functional.

Action: Verify that the system is installed as a Hospitality system. Collect SEERs and contact your NT support organization.

NT: Use ad_util to verify that the customer profile can be accessed for the specified Hospitality customer. Verify that a customer has been defined to run Hospitality. A new customer profile can be created if required.

7006 Minor Error

Cause: HAS failed to open the Networking Database. It is used internally to translate cross-site DNs.

Impact: The HAS will not start if this file cannot be accessed.

Action: Collect SEERs and contact your NT support organization.

NT: Make sure the network database file is present and accessible. Also, check if there is a file system problem. Restart the system. If the problem persists, contact Northern Telecom’s development group (NT-TOR).

7007 Minor Error

Cause: The HAS is trying to register that it is running with the name server, so that other tasks can locate and call it.

Impact: The HAS will not start if it cannot register with the name server. If HAS did register, none of the other tasks could locate it to call it.

Action: Collect SEERs, and contact your NT support organization.

NT: Try restarting the system first and make sure that everything comes up.

7008 Info Debug

Cause: The HAS succeeded in its attempt to start, and is indicating that it is ready to process commands.

Impact: The HAS component is started and ready.

Action: None

NT: None

7009 Depends on context Depends on context

Cause: Some type of tasking error has occurred. Usually this will indicate a failure in intertask communication.

Impact: If a failure occurs while HAS is initializing, then HAS will not be functional. If it occurs at almost any other time, the communication will be retried.

Action: Collect SEERs and contact your NT support organization.

NT: Try restarting the system first and make sure that everything comes up. Make sure that all components are in the startlist.

7010 Major Error

Cause: The Hospitality feature has not been enabled on the system or on the customer specified.

Impact: The HAS component will not be functional.

Action: Collect SEERs and contact your NT support organization to enable the Hospitality feature if you wish to use this feature.

NT: Verify the System profile to see if Hospitality has been enabled on the system. Enable it if it is required. It must be enabled on only one customer (do this next). If this is a new system, create MHVS cabinet on the system directory, and on each user cabinet create PCOCAB. If this is an already existing system, then you should be running a conversion.

7011 Minor Error

Cause: Most likely, the hospitality feature was not installed properly.

Impact: The HAS failed to read the latest Customer Profile information for Hospitality.

Action: Change the Hospitality profile again and save it. If the problem persists, collect the SEERs and contact your NT support organization.

NT: Try restarting the system first and make sure that everything comes up.

7012 Minor Error

Cause: A tasking error occurred while trying to send to HAS Command Subtask.

Impact: A command entered from the GAC, or PMS may fail if this recurs several times, causing internal queues to overflow.

Action: If the problem persists, then call Northern Telecom's support organization.

NT: If the problem persists, it may indicate the command task is dead, and the HAS main task does not know about it. Restart the HAS.

7013 Minor Error

Cause: If the Resync mode is turned on, then this SEER will be printed once hourly as a reminder that the Resync mode is on.

Impact: None

Action: None

NT: None

7020 Depends on context Depends on context

Cause: An error was encountered while another task was trying to access HAS.

Impact: Often the information the task was requesting from the HAS will not be returned, or the command the task was asking HAS to perform will not be executed. Actual impacts will vary depending upon how the tasks handled the returned results.

Action: Retry the command that was performed. If the problem persists, collect SEERs and contact your NT support organization.

NT: Try restarting the system first, and make sure that everything comes up.

7030 Depends on context Depends on context

Cause:
1. Checking in a guest to a room that was recently checked out (and is being processed by Meridian Mail). Could not find the personal profile for the checked out room to update.
2. A Room Checkin command is being processed and an error has occurred.

Impact:
1. None
2. Depends on SEER text.

Action:
1. None
2. If problem persists, then collect SEERs and contact your NT support organization.

NT:
1. None

2. A large range of errors could appear under this category. Look at the text of this SEER and at preceding SEERs for the actual cause.

7031 Depends on context Depends on context

Cause: A Room CheckOut command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7032 Depends on context Depends on context

Cause: A Room Name Change command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7035 Info Debug

Cause: The HAS lost some HEAP memory. Before and after executing a command, a check is done to make sure the amount of memory is the same.

Impact: If the problem persists, the HAS will run out of memory to do common operations like opening files.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Try killing HAS; it should restart and recover the memory loss. Try a few commands to see if they consume memory. If they do, contact Northern Telecom's development organization (NT-TOR).

7036 Depends on context Depends on context

Cause: While a Room Re–Checkin command has been processed, an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. This SEER is produced within groups. If the return code 7099 is produced, this indicates that a general error has occurred; therefore, check the information in the SEER text and the preceding SEERs for the actual cause of the problem or failure return code. Retry the command. If that operation fails, you can access the messages through the PCO (Post Check-Out) service. If this is not acceptable, contact your Northern Telecom development organization to manually move the messages into a Checked-in Room cabinet.

7037 Depends on context Depends on context

Cause: A Copy Mailbox command is being processed and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7038 Depends on context Depends on context

Cause: A Copy Mailbox Messages command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7039 Depends on context Depends on context

Cause: A turned on Message Waiting Indicator command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7040 Depends on context Depends on context

Cause: A turned off Message Waiting Indicator command is being processed and an error has been encountered.

Impact: Depends on SEER texts.

Action: If problems persist then collect SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7041 Info Error

Cause: The HAS is in the process of shutting down in a controlled manner. An error was encountered while attempting to do a particular step of the shutdown.

Impact: The HAS is shut down; normally the failure will not impact the HAS when it restarts.

Action: If SEERs appear upon restart of the HAS, ensure you look at this SEER and its related SEERs for a possible cause. If problems persist, then collect the SEERs and contact your NT support organization.

NT: Ensure that HAS starts cleanly after experiencing shutdown error.

7042 Depends on context Depends on context

Cause: A Query Voice Counts command is being processed, and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7043 Minor Admin

Cause: An invalid command was given to the HAS to execute. This command was most likely generated from the PMS system.

Impact: The HAS does not process the command.

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: Commands are parsed before they get to HAS, so either the parsing has failed or somehow the command is corrupt. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7044 Major Error

Cause: The HAS failed to allocate its memory segment. This is a critical operation. The system may be out of memory.

Impact: The HAS will not be functional without this memory segment.

Action: Check to see if any extra programs are running on the system, and shut them down if they are not needed. There may not be enough memory. A lower level component may have failed. Check the SEERs and contact your NT support organization.

NT: The system may not have sufficient memory. Make sure extra programs do not appear in the Startlist. Remove any features or packages that are not necessary, (for example, an extra package such as "md_mt"). If you are desperate for memory, a voice channel may be taken down to acquire more memory.

7045 Depends on context Depends on context

Cause: A file was searched for and was not found.

Impact: The impact varies. For example, an information SEER could be printed, or the HAS will not be functional since key files cannot be accessed.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Use the md package to find the file in question. It may have to be deleted if it is corrupted, since the HAS could not clean it up. Normally the HAS should do this itself.

7046 Minor Error

Cause: An attempt to create a file failed.

Impact: The HAS will either shut down or will not be functional, depending on the context.

Action: Collect the SEERs, and contact your NT support organization.

NT: Check the result in the SEER to see why the file could not be created. If the disk is full, then run a VS audit. If it is still full, then check the PCOCAB cabinets on each user volume. Run an unread audit. If the PCOCABs still seem full, delete the PCORLIST file in the MHVS directory on the System Volume, and restart HAS, then run the unread audits. This should clean up the PCO cabinets.

7047 Information Error

Cause: An attempt was made to write to an internal file, and the write failed.

Impact: The impact is not critical: a record is either being cleared or updated. In either case, the software will survive.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Contact Northern Telecom's development organization (NT-TOR) with the SEERs, if the problem is not apparent.

7048 Information Error

Cause: An attempt was made to commit an internal file, and the commit failed.

Impact: The impact is not critical. While the system is still up, the file will reside in memory. If the file is not committed and the system goes down, then there may be a problem depending on the file that failed to commit, and depending on the file's contents at that time.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Check for a full disk, and clear the space if required. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7049 Information Error

Cause: An attempt was made to add a new file to a cabinet, and the operation failed.

Impact: The impact depends on the situation. Normally it will be fairly severe, and will be accompanied by another SEER. Most situations should be recoverable.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Check for a full disk, and clear the space if required. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7050 Information Error

Cause: An attempt was made to close an open cabinet, and the operation failed.

Impact: The impact depends on the situation, and will normally not be severe. A loss of HEAP memory will be associated with this; if the problem is repeated, the loss of memory may affect other operations.

Action: If problems persist, then collect the SEERs and contact your NT support organization.

NT: Check for a full disk and clear the space if required. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7051 Information or Minor Error

Cause: An attempt was made to open a cabinet, and the operation failed.

Impact: The impact depends on the situation; it will normally not be severe because most cabinets are open to read. If the cabinet is open for a write function, then the write operation will fail.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Check for a full disk, and clear the space if required. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7052 Major Error

Cause: An attempt was made to open the system profile, and the operation failed.

Impact: The PMS or GAC command will not be processed.

Action: Check the return code from the open operation. If problems persist, collect the SEERs and contact your NT support organization.

NT: Use the ad_util or the md utilities, or both, to check the system profile. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7053 Information Admin

Cause: A search of the DR database failed. The key information in the lookup key was not found. This will happen typically if a checkin/out command is issued on a mailbox that does not exist, or has been deleted.

Impact: The command will fail. A message will be directed at the user that the command failed. Often, more than one SEER will be generated.

Action: Check the room DN/Number entered, and see if there is a mailbox for it. If problems persist, collect the SEERs and contact your NT support organization.

NT: Validate the parameters of the command being executed against the contents of the DR using the md_dr package, and the MMI View/Modify user; there should be a mailbox . The return code may also indicate a multimatch which will require some cleanup using md_dr. There also could be a real DR problem (perhaps corruption) that cannot be recovered.

7054 Information Error

Cause: A search of the DR database failed. An invalid result was returned.

Impact: The command will fail. A message will be directed at the user that the command failed. Often, more than one SEER will be generated.

Action: The command should be retried, possibly with different parameters. If problems persist, collect the SEERs and contact your NT support organization.

NT: Validate the parameters of the command being executed against the contents of the DR using the md_dr package.

7055 Information Error

Cause: An attempt was made to read from an internal file, and the read failed.

Impact: The impact may be critical. A record is not being read, and this record could contain critical information like a CheckIn or CheckOut. An alarm should be raised.

Action: Retry the command. If problems persist, collect the SEERs and contact your NT support organization.

NT: Try killing HAS first. It should restart and recover. Contact Northern Telecom's development organization (NT-TOR) with the SEERs if the problem is not apparent.

7056 Information Error

Cause: An attempt was made to access the HAS Recovery file. The operation failed.

Impact: The Recovery file is not required, so defaults will be used.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Check to see if the file has been corrupted, or if the volume is full. Remove the file if it is present; it will be recreated.

7059 Information Error

Cause: A Language Change command is being processed and an error has been encountered.

Impact: Depends on SEER texts

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7060 Minor Admin

Cause: An alarm could not be activated on the Front Desk Console, alerting the staff of a problem.

Impact: A command likely has failed. The alarm was being used to alert the staff of the problem so that the command could be retried.

Action: Collect the SEERs and contact your NT support organization.

NT: Examine the SEERs to determine the problem. If it is not apparent, restart the FD entry of the startlist.

7061 Minor Error

Cause: An attempt was made to convert a mailbox number to a networking address; it failed.

Impact: Networking is not used widely; therefore, there is little impact to most users.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Review the SEERs for a source cause. Try restarting the HAS.

7062 Minor Admin

Cause: HAS failed to send information to the Meridian 1.

Impact: If more than one DN is assigned per mailbox, then this SEER will most likely appear in groups. The Meridian 1 is not receiving updates. The impact is normally not severe, but should be corrected.

Action: Check the PMSI link to the Meridian 1. The link should be OK; it can be tested using the TEST_LINKS softkey from the GAC. Try again later.

NT: The link to the Meridian 1 most likely failed. Check all components of the link before contacting Northern Telecom's development organization (NT-TOR).

7063 Info Admin

Cause: A multimatch was found when the HAS did a lookup in the Corporate database.

Impact: This situation is allowed to exist. If it is not supposed to, however, then the same DN may have been assigned to two different mailboxes. This may lead to complications involving the MWI, and it should be fixed.

Action: Look up the two mailboxes using User Administration and correct them.

NT: Validate the parameters of the command being executed against the contents of the DR using the md_dr package, and the MMI View/Modify user; there should be a mailbox . The return code may also indicate a multimatch which will require some cleanup using md_dr. There also could be a real DR problem (perhaps corruption) that cannot be recovered.

7064 Major Error

Cause: The hash table is full.

Impact: The DN cannot be hashed and the command will not be executed.

Action: Reboot the system. If the problem persists, contact your NT support organization.

NT: Re-engineer the system by increasing the Startlist entry for the number of rooms, to a maximum of 3000. To do this, reboot from the install tape and choose the “Modify number of guest users” option. Contact Northern Telecom’s development group (NT-TOR) if the above failed.

7070 Depends on context Depends on context

Cause: A Read Audit is running, and an error has been encountered.

Impact: Depends on SEER texts

Action: The HAS should recover. The system can handle several failed audits. If problems persist, collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. Look at the information in the SEER text and the preceding SEERs for the actual cause of the problem.

7071 Depends on context Depends on context

Cause: An UnRead Audit is running and an error has been encountered.

Impact: Depends on SEER texts

Action: The HAS should recover. The system can handle several failed audits. If problems persist, collect the SEERs and contact your NT support organization.

NT: A large range of errors could appear under this category. The information in the SEER text and the preceding SEERs should be looked at for the actual cause of the problem.

7072 Information Error

Cause: HAS failed to open a personal cabinet in a Post CheckOut cabinet.

Impact: Messages will not be removed from the cabinet. If the problem persists in many mailboxes, the disk will fill.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Use the md package to go into the PCOCAB and remove the cabinet. If this has happened on a large scale, then just remove the PCORLIST and restart the HAS. This should clear up discrepancies.

7073 Information Error

Cause: HAS failed to tidy a personal cabinet in Post CheckOut.

Impact: Messages will not be removed from the cabinet. If the problem persists in many mailboxes, the disk will fill.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Use the md package to go into the cabinet, and remove the messages manually. This is not normally a good idea since it is better to wait for all the messages to expire, and then remove the entire cabinet. If this happens on a large scale, just remove the PCORLIST and restart the HAS. It should clear up discrepancies.

7074 Information Error

Cause: HAS failed to remove a personal cabinet in Post CheckOut.

Impact: An expired mailbox will not be deleted from the PCO. If the problem persists in many mailboxes, the disk will fill.

Action: If problems persist, then collect SEERs and contact your NT support organization.

NT: Use md package to go into the PCOCAB, and remove the cabinets manually. If this happens on a large scale, remove the PCORLIST and restart the HAS. It should clear up discrepancies.

7080 Minor Error

Cause: HAS tried to find an FID for a PCOCAB, given a volume ID. It failed to find the file PCOCAB on one of the volumes listed in the Startlist parameters to HAS.

Impact: As long as the volume listed was incorrect, and all of the other volumes listed in the Startlist are the correct and complete list of volumes, then there should be no impact. If, however, the volume listed is incorrect and was supposed to be another volume, then there will be problems.

Action: Contact your NT support organization.

NT: Correct the Startlist parameters for HAS, and restart HAS.

7081 Major Error

Cause: HAS could not access the MHVS directory, or could not find a MHVS directory on the System Volume.

Impact: If a MHVS directory does not exist or cannot be accessed, then the HAS will not be functional.

Action: Contact your NT support organization.

NT: Ensure that the system is supposed to be running Hospitality. The cabinet should have been created on an Upgrade or Install. Use the md package to create a cabinet called MHVS (note that this is case-sensitive). Restart the HAS.

7082 Information Error

Cause: HAS could not open the PCORLIST file. It exists, but for some reason could not be accessed.

Impact: The old PCORLIST file will be renamed by appending the date, and a new PCORLIST will be created from the cabinets in the PCOCAB cabinets.

Action: If this happens each time the system is restarted, then contact your NT support organization.

NT: If the problem persists, use md package to delete the PCORLIST, and start HAS.

7083 Minor Error

Cause: HAS tried to read the PCORLIST and failed.

Impact: PCO lookups may fail when the PCO feature is accessed via a telephone, or via the GAC. Audits may also fail.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Fork the has_driver and try to do a PCOPRINT. If this succeeds, the file can be accessed. If the problem persists, use the md package to delete the PCORLIST and restart HAS.

7084 Information Error

Cause: HAS attempted to do a pattern matching scan on a file, and the scan returned a bad result.

Impact: Depends on the situation

Action: Examine the SEERs to determine the cause and appropriate action. If problems persist, collect the SEERs and contact your NT support organization.

NT: Review the SEERs to determine the source of the problem.

7085 Information Error

Cause: HAS failed to create a record for the specified file.

Impact: The impact depends on the situation. The HAS should take the appropriate action.

Action: Examine the SEERs to determine the cause and appropriate action. If problems persist, collect the SEERs and contact your NT support organization.

NT: Review the SEERs to determine the source of the problem.

7086 Minor Error

Cause: An attempt was made to update the corporate directory database (DR), and the update failed.

Impact: It could be severe. This will mean that the results of a command may not be stored in the the system, that is, a name change may not have the new name in the data base. An alarm will be raised at the Guest Administration Console.

Action: The command that was last done on the mailbox indicated that it should be done again. If problems persist, collect the SEERs and contact your NT support organization.

NT: If the problem persists, notify Northern Telecom's development organization (NT-TOR).

7090 Minor Error

Cause: An attempt was made to open the corporate directory (DR), and it failed.

Impact: This is done at initialization time, and the HAS will fail to be functional.

Action: Examine the SEERs to determine the cause of the problem. If the problem cannot be determined, collect the SEERs and contact your NT support organization.

NT: Examine the return code with the SEER and the preceding SEERs, if any. The system may be out of memory or the disk may be full. Try restarting the HAS. If the problem persists, notify the development organization.

7091 Info Debug

Cause: An internal table lookup was attempted. A match was expected but not found using the sorted lookup. Therefore, a linear lookup is being attempted.

Impact: If this happens frequently, there may be some performance impacts.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: If the problem persists, notify the development organization.

7092 Information Admin

Cause: When the HAS restarts, it checks for an existing DRQ file. This file contains the commands while they are waiting to be processed. If any old commands exist, they will be processed first.

Impact: New commands will not be processed until the old ones have been processed.

Action: If this action is not desired, then before shutting down the system, disable the PMS link and let the HAS process all the commands.

NT: This is the design intent, and the SEER is provided so that the hotel does not get surprised. If customers do not like this functionality then notify the development organization.

7093 Depends on context Error

Cause: While attempting to process a corporate directory (DR) update, a problem was encountered.

Impact: It varies depending on the information in the DR that was being updated.

Action: If the information in the SEER can be traced to a particular command, then retry the command. If problems persist, collect the SEERs and contact your NT support organization.

NT: Examine SEER return code to determine the cause of the problem. Try restarting the HAS.

7094 Information Admin

Cause: When the HAS starts up, it will scan the Post Check Out mailboxes for obsolete ones if there is no PCORLIST. Any obsolete mailboxes will be deleted and a new PCORLIST will be created.

Impact: It will take significantly longer to start the HAS if it is required to rebuild the PCORLIST.

Action: None.

NT: If there seems to be an excessive number of PCO mailboxes, removing the PCORLIST is one way of auditing them. They should be audited automatically by the system.

7095 Minor Error

Cause: An audit has finished running, and the PCO task is called to clear the PCORLIST of all obsolete entries. For some reason it cannot update the PCORLIST.

Impact: The PCROLIST will have some obsolete entries, and should not impact the Hospitality user.

Action: If problems persist, collect the SEERs and contact your NT support organization.

NT: Examine the SEERs and their return codes to determine why the file update failed. The HAS should retry the updates the next time an audit is run. If the problem persists, use the md package to remove the PCORLIST in the MHVS directory, and restart the HAS. It will recreate the PCROLIST.

7096 Depends on context Depends on context

Cause: While creating a PCORLIST, an error was encountered. It most likely occurred because of an internal error.

Impact: The PCORLIST may have missed a volume while recreating.

Action: If there seems to be some impact to the use of the system, contact your NT support organization.

NT: Check the startlist parameters for correct volumes; there should be one for each user volume. There should be a PCOCAB cabinet on each user volume. Use the md package to remove the PCORLIST from the MHVS directory, and restart HAS to recreate it.

7097 Major Error

Cause: The conversion of a Hospitality system to MM9 is failing.

Impact: The Conversion to MM9 has failed for some reason. An MM9 system must pass the conversion to bring it up.

Action: Retry the Conversion.

NT: Check the SEERs, and retry the conversion before contacting Northern Telecom's development organization (NT-TOR).

7099 Info Debug

Cause: Cannot get OM Data.

Impact: None

Action: This only happens during Northern Telecom’s support activity.

NT: Contact Northern Telecom’s development organization (NT-TOR).

Class 71 PMS Link Handler (PLH)

Introduction

Class 71 SEERs are caused by problems on the link between Meridian Mail, the PMS (the Hotel's Property Management System) and the Meridian 1.

Impact of PLH errors

PLH errors indicate communication breakdown between Meridian Mail, the PMS and the Meridian 1. When a PLH error occurs the links can be left unsynchronized. One result of this might be that Meridian Mail will know when a new guest checks in but the Meridian 1 will not. To rectify these problems, generally a database swap must be initiated on the PMS to update the systems.

Content of Class 71 SEERs

A Class 71 SEER usually contains

- a text description of the error
- a low level return code or message number

Reports

7101 Critical Error

Cause: A critical error was encountered during initialization. The message text and any return codes indicate the cause.

Impact: PLH program didn't load.

Action:
1. RSM card problems—check second return code for more information.
2. Task related errors—registration, buffers, etc., contact ETAS
3. Org Profile errors—reinstall org profile and try again

4. Hardware database errors—check database to make sure it was set up correctly
5. Major alarm errors—if it is not reset (SEER will indicate if it is), it should be before proceeding
6. UART error – cannot initialize the UART for transmitting or receiving PMSI data.
7. Cannot enable data communication interrupts.
8. A problem occurred during the initialization of PLH.

NT: Check hardware. Make sure that all hardware is functioning and properly connected. Check startlist and make sure all parameters are correct. Restart the system. If the problem persists, contact Northern Telecom's development group (NT-TOR).

7102 Info Admin

Cause: The PLH can't receive from or transmit to the PMS or Meridian 1 (the SEER text will identify which side has the problem).

Impact: No communications between the PMS and Meridian Mail and the Meridian 1. The systems will get out of sync.

Action: Make sure that all the cables are plugged in. If the cables are properly connected, then the PMS software must be checked and viewed, and your Northern Telecom support organization must be called to check the links. A database swap should be initiated after the problem is resolved.

NT: Go to GAC Admin screen and test the links. If the problem persists, contact Northern Telecom's development group (NT-TOR).

7103 Info Admin

Cause: The PLH can't transmit to the Meridian 1/PMS as indicated by the SEER.

Impact: A slow down of communications between Meridian Mail and the Meridian 1 or PMS. No apparent degradation on the other side. The Meridian 1 and PMS will get out of sync.

Action: Make sure that all the cables are plugged in. If the cables are properly connected, then the PMS software must be checked and viewed, and your Northern Telecom support organization must be called to check the links. A database swap should be initiated after the problem is resolved.

NT: Go to GAC Admin screen and test the links. If the problem persists, contact Northern Telecom's development group (NT-TOR).

7104 Info Admin

Cause: Communication is restored on the side specified in the SEER text.

Action: None. If the outage was long, initiate a database swap.

NT: None

7105 Info Admin

Cause: This is a diagnostic message indicating that the PLH can now receive from the PMS or Meridian 1 as indicated in the SEER text.

Action: None. If the outage was long, initiate a database swap.

NT: None

7114 Error Admin

Cause: The receive buffer is full for the link side indicated.

Impact: Lost messages due to insufficient internal buffers. This problem should never occur.

Action: If the system is running correctly the queue should be emptied and the next message should be okay, it has a self–correcting capability. If this SEER continues to be issued, call your NT support organization so that they can collect data and report it to the development organization.

NT: Since this problem should not normally occur, contact the Northern Telecom development organization.

7120 Minor Admin

Cause: The receive queue is full for the side indicated.

Impact: Lost messages due to insufficient internal buffers. This problem should never occur.

Action: If the system is running correctly the queue should be emptied and the next message should be okay, it has a self–correcting capability. If this SEER continues to be issued, call your NT support organization so that they can collect data and report it to the development organization.

NT: Since this problem should not normally occur, contact the Northern Telecom development organization.

7122 Minor Admin

Cause: Tasking errors detected.

Impact: Depends on where and when the problem occurred.

Action: Call your Northern Telecom support organization.

NT: Contact Northern Telecom's development organization (NT-TOR).

7123 Major Admin

Cause: PLH isn't running.

Impact: Meridian Mail is out of the loop. Should be put in bypass mode by the HAS.

Action: Try rebooting the system and call your NT support organization if that fails. Initiate a database swap when the links are back up.

NT: Contact Northern Telecom's development organization (NT-TOR).

7125 Major Admin

Cause: RSM isn't there.

Impact: No communication between Meridian Mail and Meridian 1 or PMS.

Action: Initiate a database swap when the links are back up.

NT: Restart the system. If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7128 Major Admin

Cause: A SEND to the HAS failed or the HAS task cannot be located.

Impact: Meridian Mail and the PMS might get out of sync.

Action: Initiate a database swap when the links are back up if the outage was known to be of short duration a swap may not be required.

NT: Restart HAS and make sure all HAS cmd tasks are up. If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7129 Minor Error

Cause: Bad command code from the HAS.

Impact: Depends on the command issued (probably minor). This problem should never occur.

Action: If the problem persists, call your NT support organization so that they can collect information and report it to the development group.

NT: This problem should not normally occur. If the problem persists, contact the Northern Telecom development organization.

7130 Critical Error

Cause: Failed to set the bypass switch.

Impact: The switch should be set to bypass but it isn't.

Action: Set the bypass switch manually.

NT: None

7132 Minor Error

Cause: Failed to raise an alarm on the Guest Administration Console (GAC).

Impact: The attendants are not aware of an error condition.

Action: Notify hotel attendants of the failed alarm. The problem may be a checkin failure, or the PMS link is down. The GAC software may not be running; if that is the case, it should be restarted If the problem persists, call your NT support organization.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7134 Minor Admin

Cause: Too many consecutive NAKS (Negative Acknowledgements) finally resulted in substitution of an ACK (acknowledgement).

Impact: A message is lost.

Action: This SEER always occurs in a pair. The first one indicates the cause of sending a NAK. Initiate a database swap if many SEERS have occurred. If only one SEER occurred, review the message text in the seer, and if it is not serious, a database swap is not required.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7140 Minor Admin

Cause: No end of transmission character was received before the receive buffer overflowed or timed out.

Impact: A bad message was received it will be discarded when the next one arrives.

Action: The message should be transmitted again. If this occurs often then call your NT support group to check the PMSI links.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7141 Minor Admin

Cause: A STX character was received before the ETX character of the previous message was received.

Impact: A bad message will be discarded.

Action: The message should be transmitted again. If this occurs often then call your NT support group to check the PMSI links.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7143 Info Admin

Cause: A time out has occurred between the MM and PMS. The MM will adjust its timeout parameters to be longer. This may also occur when MM comes up.

Impact: It will take longer to timeout on the PMS–MM link.

Action: None

NT: None

7198 Minor Error

Cause: Software error.

Impact: The PLH (PMS Link Handler) is restarted. A message from the PMS may be lost.

Action: Call your NT support organization in order to escalate the problem to the NT development organization.

NT: This problem should never occur. Contact Northern Telecom's development organization (NT-TOR).

7199 Critical Error

Cause: The MM is shutting down.

Impact: The system will restart.

Action: Let your NT support organization know. The system should restart okay.

NT: This problem should never occur; however, if it does, the Northern Telecom development organization should be notified.

Class 72 Front Desk Console (FD)

Introduction

Class 72 SEERs affect two components:

- Guest Administration Console (GAC)
- Hospitality Administration Option on the System Administration Console

The Guest Administration Console is used for a number of tasks related to guest mailbox administration, for example, manual check in and out and mailbox status reviews. The Hospitality Administration option on the System Administration Console is used to set the Hospitality Specific Parameters of the organization, for example, the vacant room extension number (revert DN).

Impact of Front Desk Console errors

The effect of these errors on the Guest Administration Console can range from minimal to serious. For example, if one of these errors occurs, guests will usually still be able to send and receive voice messages, but the check in and out functions performed from the console will be unavailable.

Content of Class 72 SEERs

A class 72 SEER may contain

- a text message
- a lower level return code, if relevant

Reports

7220 Info System

Cause: Diagnostic information SEER

Impact: None

Action: No action is required on a diagnostic SEER.

NT: None

7221 Info Debug

Cause: A unexpected system inconsistency was detected, perhaps in a system or customer profile.

Impact: This may vary according to the situation, but usually there is not an impact. This problem should not occur.

Action: Contact your Northern Telecom support group so that they can raise the problem with the development group.

NT: Contact the Northern Telecom development group.

7224 Major Error

Cause: A tasking error occurred.

Impact: Unread message notifications may not be displayed. OM statistics will not be collected and there will be no alarms on the Guest Administration Console.

Action: If this SEER occurs during the first half hour of a system bootup, together with SEER 7228, no action needs to be taken. This is due to program loading time. If the error persists, ensure that all Guest Administration Consoles are operational.

NT: Restart the system. If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7225 Major Error

Cause: The Guest Administration Console failed to register with the Name Server on start up.

Impact: The program will kill itself and restart.

Action: If an error persists, reboot the system.

NT: Contact Northern Telecom's development organization (NT-TOR).

7226 Info Debug

Cause: The FD_Server Task failed to initiate.

Impact: There will be no OM Measurements, alarms, or unread message notifications.

Action: Call Northern Telecom's development organization (NT-TOR).

NT: Check the startlist and ensure that the parameters for the Guest Administration Consoles are correct.

7227 Critical Error

Cause: The PRM is not available.

Impact: The Guest Administration Console will not function.

Action: If the error persists, reboot the system.

NT: Contact Northern Telecom's development organization. (NT-TOR).

7228 Major Error

Cause: FD_Procs failed to locate a Guest Administration Console program.

Impact: OM measurements, alarms or unread message notifications may fail.

Action: If this SEER occurs during the first half hour of a system bootup, no action needs to be taken. This is due to program loading time. If the error persists at other times, ensure that all the Guest Administration Consoles are operational. If they are not, reboot the system.

NT: Restart the system. If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7230 Minor Error

Cause: There are communication problems with HAS.

Impact: Incorrect messages will be displayed on the Guest Administration Console, or a message indicating that the system is busy will appear, or both will occur.

Action: The problem is most likely in the software. Try again later. If that fails, then the only way to solve the problem is to shut down the HAS program (one way to do this is by rebooting).

NT: If the system comes up and still does not work, check that HAS is running. If it is still not running, check the Startlist parameters for it. If the problem persists, contact your Northern Telecom support organization.

7231 Minor Error

Cause: There are communication problems with HAS or the HAS PCO (Post Check Out) list.

Impact: You may not be able to view the PCO list.

Action: The problem is most likely in the software. Try again later. If that fails, then the only way to solve the problem is to shut down the HAS program (one way to do this is by rebooting).

NT: If the system comes up and still does not work, check that HAS is running. If it is still not running, check the Startlist parameters for it. If the problem persists, contact your Northern Telecom support organization.

7232 Info Error

Cause: Communication problems with PLH

Impact: Improper system status will be displayed at the Guest and System Administration Consoles.

Action: Check the Sanity of the PLH task. If the error persists, reboot the system.

NT: Contact Northern Telecom's development organization (NT-TOR).

7233 Major Error

Cause: Communication problems with the Cabinet Manager

Impact: An incorrrect number of messages for the guest user will be displayed.

Action: None

NT: None

7234 Info Debug

Cause: The system is timed out when trying to retrieve Guest Administration Console OM information.

Impact: Loss of OM data for this interval

Action: Reboot the system.

NT: Contact Northern Telecom's development organization (NT-TOR).

7235 Info Debug

Cause: Startlist parameters for the Guest Administration Console are incorrect.

Impact: Some components of the Guest Administration Console are inoperative.

Action: Call ETAS.

7236 Info Debug

Cause: Startlist parameters for the Guest Administration Console are incorrect.

Impact: Some components of the Guest Administration Console are inoperative.

Action: Call ETAS.

NT: The startlist parameters are most likely incorrect for the FD entries. They should be corrected and started manually. Contact your Northern Telecom support organization to perform this function.

7237 Info Debug

Cause: The HEAP was lost.

Impact: There may be insufficient HEAP space to carry out further Guest Administration Console operations.

Action: Reboot the system, collect all the SEERS and report to Northern Telecom's support organization.

NT: If this problem persists, contact your Northern Telecom development organization (NT-TOR). The GACs may be restarted in order to retrieve the lost HEAPs. If this problem continues to occur consistently, contact the Northern Telecom development organization (NT-TOR).

7238 Major Error

Cause: An error occurred while an attempt was made to run the tool to check out all guests.

Impact: The tool will stop.

Action: Rerun the tool. If problems persist, remove the mailbox that is causing the problems, and rerun the tool. If all else fails, contact your Northern Telecom support organization. Running a database swap in resynchronization mode may be an acceptable alternative.

NT: Contact Northern Telecom's development organization (NT-TOR).

7239 Minor Error

Cause: An error has occurred while an attempt was made to open the customer profile to access the customer hospitality greetings.

Impact: Greetings will not be accessible, defaults should be played.

Action: Exit the Hospitality Administration screen, reenter them, and try again. If this action fails, contact your Northern Telecom support organization.

NT: Delete the greeting, then reenter the greeting. If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7240 Minor Error

Cause: The FD Task failed to change the access mode to a profile during GAC operation.

Impact: The command will fail.

Action: Try again later. If the problem persists, check to see if the particular profile is being used in another window on your terminal. If the problem continues to persist, contact your Northern Telecom support organization.

NT: If the problem persists, contact Northern Telecom's development organization (NT-TOR).

7242 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

7243 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

7244 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

7246 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

7247 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

NT: Restart MMI_Server program using PRM_CONTROL. If the problem remains, back up the system and restart.

7299 Info Debug

Cause: Used for debugging

Impact: Minimal

Action: No action required

NT: None

Class 81 Fax Handler (FH)

Introduction

The Fax Handler (FH) is a procedural interface for applications that provides access to, and control of, fax records and fax segments. The fax handler functions as follows:

- initializes (session start) and releases (session termination) a fax session
- creates, opens, and closes fax records
- transmits and receives fax data

Like the Voice Handler (VH), the FH works in conjunction with the VPIO task. Since the VPIO task reports errors through Class 20 SEERs, VH errors may be observed when the VPIO is operating in fax mode. Refer to the chapter “Class 20 Voice Handler (VH)” for more information on the VH.

Reports

8113 Info Debug

Cause: The FH has detected a bad page during reception. The page may be considered bad if the status received from the DSP is bad, if the number of scan lines received in the page is incorrect, or if the received resolution does not match what was expected. During transmission, this status is returned to indicate a transmission error.

Impact: None

Action: None

NT: None

8167 Info Debug

Cause: The DSP status indicates the fax session was terminated with an error. The DSP status codes are as follows:

1 – protocol timeout on transmit or receive
2 – far end response timeout on receive
3 – carrier did not drop
4 – an invalid fax command was detected
5 – unexpected disconnect message from the far end
6 – poor line quality/condition
7 – no response from far end
8 – incompatible far end fax machine
9 – block underrun
10 – retransmit timeout

Impact: The page currently being received is deleted. The fax session is immediately terminated.

Action: Retry the fax operation.

NT: None

8168 Minor Error

Cause: T1 timeout. The 35 second timeout occurred before the DSP and the remote Fax machine started the T.30 handshaking sequence.

If DSP was transmitting, the problem is likely to be:

- The Fax machine ran out of paper and did not answer the call.
- The call–back number was busy/incorrect.
- The T.30 Call Connect Timeout value (in Hardware Database) is too low.
- The user did not press START key on the Fax machine to receive the Fax.

If DSP was receiving, the problem is likely to be:

- The T.30 Call Connect Timeout value is too low.
- The administrator did not press the START key on the Fax machine to scan in the Fax.

Impact: Fax transmission fails.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. Check the call–back number in the Fax Audit Trail (correct dialling code etc)

2. Call the call–back number from a regular phone (verify that a Fax machine answers)

3. Verify that the T.30 Call Connect Timeout is set to greater than 35 seconds in the hardware database

4. Rule out remote Fax machine user error

NT: Same as Action.

8169 Minor Error

Cause: T2 timeout. The 7 second timeout occurred before the DSP received a T.30 command from the remote Fax machine.

The problem is likely to be:

- The line was too noisy or the line disconnected before or after the Fax content was received.
- The T.30 Handshake Timeout value is too low.

Impact: Fax may be incomplete

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. Retry the transmission from the same Fax machine

2. Retry the transmission from a different Fax machine

3. Check the connection

4. Verify that the T.30 Handshake Timeout is set to 7 seconds in the hardware database

NT: Same as Action.

8170 Minor Error

Cause: Carrier didn't drop. The DSP detected a Checksum error in a T.30 message from the remote Fax machine and the length of the message exceeded 2.55 seconds or the DSP received a single scan line which exceeded the 0.5 second maximum time limit.

If DSP was transmitting, the problem is likely to be:

- The line became too noisy before or after the Fax content was sent.

If DSP was receiving, the problem is likely to be:

- The line became too noisy before or after the Fax content was received.
- A single scan line exceeded the 0.5 second time limit, and the call had to be disconnected.

Impact: The fax may be incomplete.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. Retry the transmission from the same Fax machine
2. Retry the transmission from a different Fax machine
3. Check the connection

NT: Same as Action.

8171 Minor Error

Cause: Invalid T.30 command. The DSP received an invalid T.30 message from the remote Fax machine.

- The remote Fax machine is not T.30 compliant.
- Bit errors in the data and CRC simulated an invalid T.30 message.

Impact: Fax may be incomplete.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. If possible, request that the operation of the remote Fax machine be verified
2. Retry the call with the same Fax machine
3. Retry the call with a different Fax machine

NT: Same as Action.

8172 Minor Error

Cause: Unexpected disconnect. The remote Fax machine sent an unexpected disconnect message to the DSP.

If DSP was transmitting, the problem is likely to be:

- The DSP and the remote Fax machine both attempted to transmit a Fax.

- The remote Fax machine ran out of paper.

If DSP was receiving, the problem is likely to be:

- The DSP received a bad page from the remote Fax machine followed by a disconnect message.
- The DSP did not receive any pages from the remote Fax machine

Impact: The fax is incomplete

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. If possible, verify that the remote Fax machine has paper
2. Retry the transmission from the same remote Fax machine
3. Check the connection

NT: Same as Action.

8173 Minor Error

Cause: Poor line condition. The remote Fax machine sent a Failure to Train message to the DSP after each training phase.

Impact: Fax transmission fails.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. Retry the transmission to the same remote Fax machine
2. Retry the transmission to a different remote Fax machine
3. Check the connection

NT: Same as Action.

8174 Minor Error

Cause: No response from the far end. The remote Fax machine did not respond to a T.30 command sent to it by the DSP after three tries.

- The remote Fax machine ran out of paper or the paper jammed.
- The line was too noisy or the line disconnected before or after the Fax content was sent.
- The T.30 Response Timeout value is too low/high.

Impact: Fax transmission fails.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. If possible, verify that the remote Fax machine has a working paper feeder

2. Retry the transmission to the same remote Fax machine

3. Verify that the T.30 Response Timeout is set to 3.0 seconds in the hardware database

NT: Same as Action.

8175 Minor Error

Cause: Incompatible remote machine. The remote Fax machine and the DSP are incompatible.

If DSP was transmitting, the problem is likely to be:

- The remote Fax machine and the DSP attempted to receive a Fax at the same time.

If DSP was transmitting or receiving, the problem is likely to be:

- The remote machine does not conform to the G3 standard.

Impact: Fax transmission fails.

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. If possible, load page(s) into the remote Fax machine.

2. Retry the transmission from the same remote Fax machine.

3. Retry the transmission from a different remote Fax machine.

NT: Same as Action.

8176 Minor Error

Cause: Block undderun watchdog timeout. The DSP terminated the transmission after waiting 10 seconds for the next fax block.

- A disk error caused the Fax content to become corrupt.
- A software timing delay on Meridian Mail caused the Fax content to be delayed.

Impact: Fax transmission is incomplete

Action: Move on to the next action in the list if the preceding action fails to pin–point the problem:

1. Look for a Bad Block SEER indicating DSP detection of a corrupted fax block.

If this SEER is present, retry the transmission to the same remote Fax machine. If the SEER appears again, this may indicate that the system has a disk problem.

2. Look for VPH/VPIO SEERs indicating software problems/crashes.

If these SEERs are present, make sure that the channel in the MMI reloads and observe that calls can be made to/from this channel. If the channel does not reload, manually disable and re–enable the channel.

NT: Same as Action.

8177 Minor Error

Cause: Page re–transmit watchdog timeout. The DSP was requested to retransmit the Fax but the software failed to pass a new Fax block to the DSP within 1 minute.

- A software timing delay on Meridian Mail caused the Fax content to be delayed.

Impact: Fax transmission is incomplete

Action: Move on to the next action in the list if the preceding action fails to pin-point the problem:

1. Retry the re-transmission to the same remote Fax machine.

2. Look for VPH/VPIO SEERs indicating software problems/crashes.

If these SEERs are present, make sure that the channel in the MMI reloads and observe that calls can be made to/from this channel. If the channel does not reload, manually disable and re–enable the channel.

NT: Same as Action.

8190 Minor Error

Cause: A tasking error occured in communication between the application and the VPIO task or between the VPIO task and the application. If the text says “Tasking Error <error code>, sending to Application, Event <EventCode>”, then the event code indicates the event that is being passed to the application. The possible event codes are as follows:

8150 – end of fax segment reached
8151 – end of fax page reached

8152 – the maximum number of pages has been received
8155 – an ID string from the remote fax machine has been received
8156 – the fax session has been terminated

Impact: The message being sent is discarded. The impact will depend in which message is discarded and which application is executing. The impact will range from none to losing the use of that DSP port.

Action: If further problems are observed with that multimedia port, disable the port indicated in the SEER's HWLOC and re–enable it. If the problem is not corrected, reboot the system and check the result of the startup diagnostics. If the problem persists, contact your NT support organization.

NT: This may indicate a software design error.

8198 Info Debug

Cause: This SEER logs information about the current session that results from external variables. For example, when the page limit is exceeded, this SEER is issued.

Impact: None

Action: None

NT: None

8199 Minor Error

Cause: An unexpected condition was detected in the FH.

Impact: The session may not function as expected.

Action: If the problem is observed multiple times on the same port, disable the port indicated in the SEER and re–enable it. If the problem persists, contact your Northern Telecom support organization.

NT: This SEER may indicate a software design problem. Forward all SEERS to the design group.

Class 82 Fax ASCII Translation (FX)

Introduction

The Fax ASCII Translation routine translates text and font data into a common block of data to be handed to the DSP for final translation and transmission to a far end fax machine.

Reports

8216 Info Debug

Cause: A software error has occurred while using the FX_UTIL tool. Only the DFONT FX_UTIL command is available with this tool. This command allows the user to send a copy of a complete font file to a fax machine.

This SEER is issued to technical personnel to view when a software error occurs. This SEER provides detailed information that can be viewed to determine the exact nature of the problem.

Impact: Minor. The command is not available to the administrator.

Action: a. Debug level SEER. The administrator's actions are displayed on the command line of the utility.

Problems easily diagnosed by an administrator, such as invalid DNs, re-order tones, or busy channels are indicated in a command line error message displayed to the administrator.

b. If a more complex software error occurs then the following message is displayed: "A software error has occurred, please try again later," followed by a lower level error code.

The following general diagnostic checks are displayed to the administrator:

- "Ensure that the FIS/FIM services are functioning properly." That is, make sure that a fax document can be faxed back to a fax machine.

- "Ensure that the voice soft key can be used to record a user's spoken name."
- "If any of the above features are not operational then this utility will also not function properly. Please review the appropriate NTP document to enable these features."
- "Review the lower level return code in Appendix A."

NT:

1. Perform the general diagnostic steps listed under 'Action' to confirm that the system has been configured properly.
2. The SEER text and lower level return code will indicate the area of failure. This may indicate a system misconfiguration or a lower level software fault. Possible SEER text include the following, together with an extra integer lower level return code:
   - Fails to release FH channel
   - Fails to disconnect a call
   - Unknown task crashes
   - VPIO task crashes
   - Fails to place outgoing call to <UserDN>
3. Return codes may be from any of the following lower level components:
   - Class 10, Disk Data Interface
   - Class 11, Volume Server
   - Class 20, Voice Handler
   - Class 27, Voice Service Shell
   - Class 28, Generic Telephony Interface
   - Class 34, Voice Channel Allocator
   - Class 81, Fax Handler

Class 83 Fax Item Maintenance Service (FIM)

Introduction

The Fax Item Maintenance Service provides the administrator with the ability to maintain fax items. FIM errors will affect only one call or user session. If a serious problem is encountered during a FIM session, the update will be abandoned. If the error occurs prior to the fax reception being initiated, an error prompt will be played to the caller if possible, and the call will be disconnected. If the error occurs during the fax portion of the session, the call will be simply terminated. If verification was requested, a negative acknowledgement will be sent to the administrator of the fax item. In all error situations all of the system resources will be recovered if possible.

A Class 83 SEER will contain as many of the following items as are available:

- Error class and error number
- SEER text
- VSDN that was dialed to access this service
- Fax item ID that was being worked on
- Return code from the called routine

Reports

8301 Minor Error

Cause: An attempt to play a system or service prompt has failed.

Impact: The expected prompt will not be played. In all cases the service will continue on as if the request to play the prompt was successful. The failure of the prompt to play will cause the service to sound confusing to the caller.

Action: Check the return code produced by this SEER. It will point to a lower layer problem. Look for other SEERs with the same class as the return code, and diagnose the problem. If the return code does not help, then contact your Northern Telecom support organization.

NT: Check for missing segments or file corruption in the prompt files. Look for accompanying VH/VX SEERs (classes 20 and 21) to pinpoint the exact nature of the problem.

8302 Minor Error

Cause: An attempt to record a confirmation prompt has failed.

Impact: The service will be disconnected gracefully and the update will be abandoned.

Action: Check the return code included in this SEER. It will point to a lower layer problem. Look for other SEERs which have the same class as the return code and diagnose the problem from there. If the return code does not help then contact your Northern Telecom support organization.

NT: Look for surrounding VH/VX SEERs (classes 20 and 21) and diagnose the problem from here.

8303 Minor Error

Cause: An attempt to disconnect the call failed.

Impact: The service will function, however, the channel may remain active for a long time.

Action: Check the return code and the other accompanying SEERs. Perform whatever actions are specified by the SEERs. If this does not help, contact your Northern Telecom support organization.

NT: Diagnose the problem from the SEERs.

8304 Minor Error

Cause:

Case 1. The call could not be answered.

Case 2. The system and/or service prompt files could not be opened.

Case 3. The volume server's operational measurements could not be read.

Case 4. The volume on which the fax items are stored is more than 95% full.

Case 5. An error occurred obtaining the custom session profile information.

Case 6. A software error has occurred.

Case 7. A problem occurred accessing the customer information.

Case 8. A software error has occurred during the loading of a channel.

Impact: In all cases the service will not be started.

Action:

Cases 1, 2, 3, 5. The problem should clear itself. If the problem persists, contact your Northern Telecom support organization.

Cases 4, 8. Contact your Northern Telecom support organization.

Cases 6, 7. Attempt to re-enable the channel. If the problem persists contact your Northern Telecom support organization.

NT: In all cases diagnose the problem through the accompanying SEERs.

8306 Info Admin

Cause: Someone has attempted to logon to update a fax item and failed to logon correctly more than the maximum number of times allowed.

Impact: There is no system impact.

Action: None

NT: None

8307 Minor Error

Cause:

Case 1. Removing a service definition during cleanup failed. The new service definition will reside on the system temporarily.

Case 2. A fax item service definition could not be closed properly. The file will stay open for a short time.

Case 3. An error occurred opening or reading a fax item. The session cannot proceed and the service will terminate gracefully.

Case 4. A problem occurred while creating the file where a new fax item will reside. The session cannot proceed and the service will terminate gracefully.

Case 5. During a play operation an error occurred trying to find the voice record in a fax item definition file. The session cannot proceed and the service will terminate.

Case 6. During a record operation an error occurred trying to find or create the voice record in a fax item definition file. The session cannot proceed and the service will terminate gracefully.

Case 7. During preparation for fax reception an error occurred finding records within a fax item definition file. The session cannot proceed and the service will terminate gracefully.

Impact: The impact depends upon the cause. See above.

Action: In all cases the problem should clear itself. If it happens more than once, contact your Northern Telecom support organization.

NT: In all cases diagnose the problem via the surrounding SEERs.

8308 Minor Error

Cause:

Case 1. A lower layer error occurred and the digit that was pressed by the caller cannot be retrieved. The service will not be able to respond to the command.

Case 2. The digit that was pressed according to the lower layers is an invalid digit, that is, one that is not recognized. The service will not be able to respond to the command.

Case 3. The VPH has reported an error condition within itself. The session cannot proceed and the service will terminate gracefully.

Case 4. The VPIO has reported a voice input/output event which is not recognized. It will be ignored.

Impact: The service will function properly. However, the user may be confused if their commands are not being recognized.

Action: All of the above should be transient problems. If they persist contact your Northern Telecom support organization.

NT: Diagnose the problems through the surrounding SEERs. It is likely either some form of data corruption or a software error has occurred.

8310 Info Admin

Cause: 1. "Failed to remove fax item, FID=n.nnnnn.nnnnn."
An attempt to remove a particular fax item, specified by the FID n.nnnnn.nnnnn from the voiceservice cabinet has failed.

2. "Failed to clean up extraneous fax item definitions."
   An attempt to scan through the voiceservices cabinet for fax items that need to be cleaned up failed.

Impact: Extraneous fax items will be left in the voiceservices cabinet. However, the update has taken place.

Action: This problem should be transient. The next time an update of this fax item occurs, the extraneous files will be removed. If these SEERs persist, contact your Northern Telecom support organization.

NT: A problem occurred removing files from the voiceservice cabinet. Use MD to remove the files indicated by the FIDs in the SEERs. Diagnose the underlying problem by looking at the return code as well as examining the surrounding SEERs.

8311 Info Admin

Cause: The fax item specified in the SEER was updated in some way.

Impact: None

Action: None

NT: None.

8312 Minor Error

Cause: An attempt to read one of the customer or system profiles has failed.

Impact: Case 1. If the system is unable to read the OM record, unable to read the voice services profiles, or if an error occurs initiating a fax scan, the session cannot proceed and will terminate gracefully.

Case 2. If the system failed to read the date format, the default date format will be used which is dd/mm/yy.

Action: This problem should be transient. If the problem persists contact your Northern Telecom support organization.

NT: A problem has occurred in a call to AD routines. Diagnose the problem form the surrounding SEERs.

8313 Info Admin

Cause: An online upgrade shutdown message was received. The session will terminate gracefully.

Impact: Any updates up to this point will be lost.

Action: None

NT: None

8315 Info Admin

Cause: Someone has attempted to change the update password incorrectly. They have done this more than the maximum number of times allowed.

Impact: There is no system impact.

Action: Check for a potentially malicious user trying to change the password.

NT: None

8316 Info Admin

Cause: Someone has changed the update password for a fax item.

Impact: Anybody attempting to update this fax item with the old password will be unable to do so.

Action: None

NT: None

8318 Minor Admin

Cause: Fax reception to update a fax item has failed.

Impact: The update of the fax item will be abandoned.

Action: Check the return code. If the return code indicates poor line quality or an incompatible far-end fax machine, attempt to rectify the problem. If this is not possible contact your Northern Telecom support organization.

NT: Use the return code to determine what happened. More than likely some form of the DSP return code has appeared, indicating a fax protocol violation. Follow up the DSP troubleshooting guidelines to investigate the nature of the problem and correct it.

8319 Minor Error

Cause: During the creation of the verification fax for an update, an error occurred in the creation of the cover page.

Impact: No verification will be sent.

Action: Check the return code and other SEERs. Perform whatever actions are indicated by the accompanying SEERs. It is possible that this is a transient problem, but if not contact your Northern Telecom support organization.

NT Diagnose the problem through the accompanying SEERs.

8321 Minor Error

Cause: Case 1. The voice service DN could not be found in the DR.
Case 2. Upon termination of the service an error occurred while attempting to unlock the DR entry for the specified fax item.
Case 3. A DR error occurred while attempting to find the entry for the specified fax item.
Case 4. An error occurred while attempting to lock the DR entry for the specified fax item.

Impact: Case 1. The requested verification will not be sent.

Case 2. There is no long term impact. The next task to ask to lock this fax item will be granted permission.

Case 3, 4. The specified fax item, if it exists, can not be updated. The session cannot proceed and will terminate gracefully.

Action: Case 1, 3, 4. This problem should be transient. If the problem persists contact your Northern Telecom support organization.

Case 2. None, the system will recover itself.

NT: Check the surrounding SEERs for some indication of a DR problem. Diagnose the problem based on these SEERs.

8322 Minor Admin

Cause: An attempt to send a verification fax has failed

Impact: The person who updated this fax and who requested verification will not receive one.

Action: Check the accompanying SEERs for the underlying problem.

NT: Diagnose the problem from the accompanying SEERs.

8323 Minor Error

Cause: The initiation of the fax reception has failed due to a lower layer software problem.

Impact: The fax will not be able to be received. The session will be terminated and any update to the confirmation prompt will be abandoned.

Action: Check the return code and other surrounding SEERs. Perform whatever actions are specified by the accompanying SEERs. If this does not help, contact your Northern Telecom support organization.

NT: Diagnose the problem from the accompanying SEERs. Pay particular attention to the FH SEERs (class 81).

8324 Minor Error

Cause: An error occurred during a voice operation.

Impact: The session cannot continue and will terminate gracefully.

Action: Collect all accompanying SEERs and any other relevant information and contact your Northern Telecom support organization.

NT: Attempt to determine the problem from the surrounding SEERs. Especially look for a bad DSP.

8327 Minor Error

Cause: The fax item which was specified has a version number which is inconsistent with the current software.

Impact: This fax item cannot be updated. The session will terminate.

Action: Contact your Northern Telecom support organization.

NT: Contact your development organization.

8328 Minor Error

Cause: An error occurred while cleaning up the update of a fax item.

Impact: The update will not take effect.

Action: This problem should be transient. If it happens again contact your Northern Telecom support organization.

NT: Diagnose the problem from the accompanying SEERs.

8329 Major Error

Cause: At startup the system prompt file could not be found.

Impact: The service will attempt to start up first in the preferred language, and if this situation is encountered, it will attempt to start up in the default language.

Action: Contact your Norther Telecom support organization.

NT: Verify that the prompt files are on the system and are not corrupt. Look at the accompanying SEERs for other indications of the problem if the prompt files are not causing the problem.

8330 Major Error

Cause: At startup the service prompt file could not be found.

Impact: The service will attempt to start up first in the preferred language, and if this situation is encountered, it will attempt to start up in the default language.

Action: Contact your Norther Telecom support organization.

NT: Verify that the prompt files are on the system and are not corrupt. Look at the accompanying SEERs for other indications of the problem if the prompt files are not causing the problem.

8331 Major Error

Cause: During the creation of the fax batch that will be sent out for verification an error occurred.

Impact: No verification will be sent.

Action: Check the return code and other surrounding SEERs. Perform whatever actions are specified by the surrounding SEERs. If this does not help, contact your Northern Telecom support organization.

NT: Diagnose the problem via the surrounding SEERs.

Class 84 Multimedia Outcalling Agent (MCA)

Introduction

The Multimedia Outcalling Agent (MCA) provides fax printing services. Failures in the MCA function will affect only one call. For more serious problems, a duplicate call may occur.

A Class 84 SEER will generate message text and a low level return code.

Reports

8401 Minor Admin

Cause: The MCA has encountered unavailable resources.

Impact: The MCA will not place the call or, if the call has been placed, the fax will not be transmitted.

Action: The error text and return code will identify the unavailable resource. Contact your Northern Telecom support organization.

NT: Examine the return code.

8403 Minor Admin

Cause: The fax cannot be transmitted.

Impact: The current fax transmission will be aborted.

Action: Examine the error text and the return code. If the cause of the problem is unclear contact your Northern Telecom support organization.

NT: Examine the return code.

8405 Minor Admin

Cause: There is a problem opening or reading a fax.

Impact: The fax transmission will be aborted.

Action: The error text and return code will identify the problem. If the error persists, contact your Northern Telecom organization.

NT: This level of software has encountered a problem with a lower level. Review the lower level return code and related SEERs that have been generated within the last five minutes. If the source of the problem cannot be identified, notify the development organization.

8406 Minor Admin

Cause: A request for something that has not been implemented has been received.

Impact: The request will be ignored, or the service will be slow in responding. Temporary data corruption may have occurred.

Action: None; the problem should clear itself.

NT: If the problem persists, check for the source of the data corruption.

8407 Minor Admin

Cause: An error was encountered while cleaning up resources.

Impact: The operation being performed will not be completed. If the operation involved closing a file, the file will not have been closed properly. If the operation involved a disconnect, the session will instead remain in service; however, in this situation, the service will eventually time–out and disconnect.

Action: The error text and return code will identify the resource that is not available. If the error persists, contact your Northern Telecom support organization.

NT: Look up the return code for further information; look at other SEERs during the previous few minutes. If the unavailable resource cannot be identified, notify the NT development organization.

8408 Minor Admin

Cause: The software encountered an unexpected problem.

Impact: The session will disconnect.

Action: The error text and return code will identify the unexpected problem. If the error persists, contact your Northern Telecom support organization.

NT: This level of software has encountered a problem with a lower level. Review the lower level return code, and the related SEERs that have been generated within the

last five minutes. If the source of the problem cannot be identified, notify the NT development organization.

8409 Info Debug

Cause: Reporting an event worthy of noting.

Impact: None.

Action: None.

NT: None.

Class 85 Fax Printing (FP)

Introduction

Fax Printing (FP) is part of the Outcalling Server (OCS). The FP software schedules and controls the placement of call back fax transmissions.

The Fax Printing Outcalling Service (FP-OCS) communicates with, and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or voice service, or may affect all outcalling operations.

Problems with four levels of problem severity can occur:

- Critical – Outcalling will cease or not be operating properly.
- Major – Some notifications, messages, or faxes may be lost. Outcalling will continue but the results are not guaranteed.
- Minor – May continue without adverse effect.
- Info – A normal event that should be logged.

The Class 85 SEERs give an indication of which FP–OCS operation failed, together with a lower level return code.

Reports

8501 Critical Admin

Cause: Fax Printing request processing routines could not be initialized.

Impact: Fax printing will not be available on the system.

Action: Reboot the system. Contact your Northern Telecom support organization if the problem does not clear.

NT: Reload the system tapes. If this does not fix the problem, notify the NT development organization.

8505 Major Admin

Cause: Trying to send a message that is not a fax.

Impact: Fax Printing will not transmit the fax.

Action: Contact your Northern Telecom support organization.

NT: Look for other related SEERs. If the condition persists, notify the NT development organization.

8506 Major Admin

Cause: Failed to read fax or spool cabinet file information.

Impact: The OCS will cancel the fax and list the cancellation in the audit trail. If the spool cabinet could not be read then all FP requests for the volume containing the file will be cleared and recovered again.

Action: If recovery does not take place (a 9010 SEER indicating “OCS: Recovery Complete” does not appear), then a lower level problem may exist (e.g. the volume server or node has gone down). If the condition persists, contact your Northern Telecom support organization.

NT: Look for other related SEERs. If this condition persists notify the development organization.

8507 Major Error

Cause: The fax version is invalid.

Impact: A message with a version number that is illegal, or is greater than the release of this software, has been found. This may be due to a mismatch of software.

Action: Contact your Northern Telecom support organization.

NT: This message indicates that the versions of software in use are not compatible. This occurs at sites that have a newer version of software and restore it with an older version of software. Notify the NT development organization if determination of the problem cannot be made.

8508 Major Admin

Cause: A command issued to the OCS failed; the OCS could have terminated.

Impact: No fax messages will be lost. The MT will still try to send the fax to the OCS after a series of delays. However, if the OCS has terminated and does not restart, no outcalling session can take place.

Action: The OCS has probably terminated as a result of another kind of failure. Look for other SEERs that can be related to OCS failure. This could be caused, for example, by a node that has gone out of service, and then came back into service. Once the OCS is restarted, this problem should disappear.

NT: If the OCS terminates and does not restart:

- look for other related SEERs.
- check the STARTLIST and the status of the nodes.

If the problem cannot be resolved, notify the development organization.

8509 Major Admin

Cause: A problem occurred starting a recovery task.

Impact: Another recovery attempt will be automatically be made within five minutes. However, if this problem continues without the 9010 ”OCS Recovery Complete” debug SEER appearing, then FP for this volume may not work.

Action: If FP recovery does not occur, contact your Northern Telecom support organization.

NT: Notify the development organization.

8510 Major Admin

Cause: The FP recovery task could not access the fax. There may be a problem with a lower layer of software. The fax may be incomplete due to an unexpected termination of the fax creation task.

Impact: If the fax was incomplete, it will be removed; otherwise another recovery attempt will automatically be made within five minutes. If recovery attempts continue without the 9010 ”OCS Recovery Complete” debug SEER, FP for this volume may not work.

Action: If the nonrecovery situation continues, contact your Northern Telecom support organization.

NT: Notify the NT development organization at NT-TOR.

Class 90 Outcalling Server (OCS)

Introduction

The Outcalling Server (OCS) is a multi-server which schedules and controls the placement of outgoing calls for Remote Notification (RN), Delivery to Nonusers (DNU), and Fax Printing (FP).

The OCS communicates and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or may affect all outcalling operations. The severity of OCS SEERs vary:

- CRITICAL: Outcalling will cease or not be operating properly.
- MAJOR: Some notifications or messages may be lost. Outcalling will continue but the results are not guaranteed.
- MINOR: May continue without adverse effect.
- INFO: Normal event worthy of logging.

A class 90 SEER contains:

- an indication of which OCS operation failed (the request type refers to the type of outcalling service: RN, DNU, or FP)
- a lower level return code

Reports

9000 Info Error

Cause: The OCS_UTIL was not started.

Impact: The OCS_UTIL cannot be used to monitor OCS activity.

Action: Contact your Northern Telecom support organization.

NT: This may be a memory management issue. Look for other related SEERs. If the condition persists, notify the development organization.

9001 Major Admin

Cause: The request type was not within the set configured for this system.

Impact: This request type will not be available.

Action: Reboot the system. Contact your NT support organization if the problem is not cleared.

NT: Reload system tapes.

9002 Major Admin

Cause: The request type was valid but not a part of this software load.

Impact: This request type will not be available.

Action: Reboot the system. Contact your NT support organization if the problem is not cleared.

NT: Determine if the customer has access to this request type. If access is allowed, then notify the development organization.

9003 Minor Admin

Cause:
1. Due to an error opening a user's personal profile, an attempt was made to locate the user in DR. The user was not found. The user may have been removed since the message was sent.
2. Due to an error opening a voice service profile, an attempt was made to locate the voice service in DR. The voice service was not found. The voice service may have been removed since the message was sent.

Impact:
Case 1 The RN or DNU message will be cancelled for this user. The user's name and extension cannot be listed due to the fact that they are no longer in the DR.

Case 2 The FP message will be cancelled for this voice service. The voice service's extension cannot be listed due to the fact that it is no longer in the DR.

Action: If this is occurring after a number of users or voice services have been removed from the system then this is normal. If not, then contact your NT support organization.

NT: Try to determine why the DR is returning a NOMATCH value for users or VSDNs that are “valid”. This may be a DR, user administration or voice service administration problem. Notify the development organization.

9004 Critical Error

Cause: The system volume is not up yet. This is critical to the running of the all programs.

Impact: Until the system volume is up, no outcalling will take place.

Action: Contact your NT support organization.

NT: Possible reasons for not being able to see the system volume are as follows:

- The volume is taking a very long time to load/run.
- The system was not properly configured.
- A node has gone down.

9005 Minor Admin

Cause: Failed to commit or write an audit trail file.

Impact: The collection of audit trails will be disabled until the administrator turns their collection back ON from the Outcalling Options screen. The text of the SEER will indicate if the percentage of storage listed in the Outcalling Options screen was reached, the volume has become full, or an error has occurred.

Action: If a storage limit was reached, reduce the number of days to store outcalling audit trails and set the collection of audit trail information to “Enabled”. If an error occurred while writing the audit trail file then look up the lower level return code and follow the advice given. Attempt to set the collection of audit trail information to “Enabled” in the Outcalling Options screen. If errors persist, contact your NT support organization.

NT: Look at the lower level return code and check the text space on the volume using VSMUP. If the condition persists, notify the development organization.

9007 Minor Admin

Cause: An OCA/MCA/New Service has given the OCS an invalid session index value.

Impact: The OCS will schedule a new outcalling session. A duplicate call may occur.

Action: If this problem occurs frequently (more than once a day), contact your NT support organization.

NT: This is an internal problem within the OCS. Notify the development organization.

9008 Critical Error

Cause: An OCS was not found on the system.

Impact: The OCS is not running. No outcalling will take place.

Action: Review previous outcalling SEERs to try to determine why OCS is no longer running. Contact your NT support organization.

NT: Determine if the OCS was placed in the STARTLIST for the system. If so, see if it has terminated due to another problem. Try to determine why and how this has happened. This could be a configuration issue. A problem could have occurred earlier causing the multi-server to terminate. If nothing further can be determined, notify the development organization.

9009 Major Admin

Cause: The OCS was given an invalid time.

Impact: The outcalling will cease until a proper time is given to the OCS. It is possible that DNU, RN, or FP requests being processed may be lost.

Action: The affected requests will include in the SEER the user name and extension, or the voice service extension. If a short outage occurred then only these users or voice services will have been affected. If a longer outage occurs, then a problem may exist with the Time Server. Contact your Northern Telecom support organization.

NT: Determine why an invalid/nil time is being received from the time server. The server itself may not be running. If the condition persists notify the development organization.

9010 Info Admin or Debug

Cause: This is a note indicating a state in the OCS.

Impact: This note is used to indicate when recovery is complete, when recovery is delayed, or when a change in the state of the outcalling server should be recorded.

Action: None

NT: None

9011 Critical Admin

Cause: An error occurred when trying to read the organization profile.

Impact: The outcalling Server will not run until it is able to read this file.

Action: The lower level return code will be from AD. See Admin (AD, Class 30) to determine the problem within the organization profile. If unclear, contact your Northern Telecom support organization.

NT: Determine if the organizational profile is corrupted or non-existent. If so, notify the development organization.

9013 Major Admin

Cause: A lower-level routine was not able to process the results of call.

Impact: The name and extension of the user or voice service will be listed. The message, notification, or fax may have been lost. Only this user or voice service will be affected. Another SEER from the result-processing routine should explain the problem in further detail.

Action: Review the result-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

NT: Review the NT action for the result-processing SEER (RN, DNU, or FP), and follow the NT action.

9014 Minor Admin

Cause: A recovery task (RN, DNU, or FP) has terminated unexpectedly.

Impact: The OCS will start a new recovery task. However, if this occurs repeatedly without a 9010 Debug SEER indicating “OCS: Recovery Complete”, outcalling may only function with user volumes/request types which have been successfully recovered.

Action: If the condition persists, contact your NT support organization.

NT: Notify the development organization.

9015 Minor Admin

Cause: A problem occurred with the OCS’s scheduling array.

Impact: The outcalling Server will try to restart.

Action: If the OCS fails to recover or this problem persists, contact your NT support organization.

NT: Determine why the failure is occurring based on the lower level return code. This may simply be due to a lack of text space on the volume. If the condition persists, notify the development organization.

9016 Critical Error

Cause: Command line/Startlist parameters are not valid.

Impact: Until the proper command line parameters are given to the OCS it will not start.

Action: Contact your NT support organization.

NT: The command line parameters for the OCS are as follows:

[SCSI] [V_<#VChan>_<VolA>_<VolB>...<VolX>] [M_<#MChan>_<Vol1>_<Vol2>...<VolN>]

9017 Minor Admin

Cause: An agent (MCA or OCA) or started service (RN, DNU, or FP) has completed but results have not been reported back to the OCS. Another call will be scheduled; this may or may not result in a duplicate call being made.

Impact: There is a possibility of a duplicate call being made.

Action: If this problem occurred a series of times, contact your NT support organization.

NT: The problem may be due to crashes, or other forms of software problems with MCA, OCA, RN, DNU or FP. Check for these kinds of errors. If the condition persists notify the development organization.

9018 Major Admin

Cause: Unable to validate a RN, DNU, or FP request.

Impact: The name and extension of the user or voice service will be listed. The message, notification, or fax may have been lost. Only this user or voice service will be affected. Another SEER from the validation-processing routine should explain the problem in further detail.

Action: Review the validation-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

NT: Try to determine the problem at the lower level. Notify the development organization.

9020 Critical Error

Cause: Unable to register the OCS as a multi-server on the system.

Impact: The OCS will not be available on the system until it can “Register” on the system.

Action: Contact your NT support organization.

NT: This may be a system engineering issue; notify the development organization.

9021 1. Major or 2. Debug Admin

Cause: Case 1. An internal state problem has occurred.

Case 2. A non-outcalling agent wants to perform outcalling duties.

Impact: Case 1. An abnormal communication has occurred between the OCS and OCA/MCA. The OCS will attempt to recover from this problem and schedule a new OCA/MCA. A duplicate call may or may not occur.

Case 2. The OCS will ignore the requesting agent.

Action: If the problem occurs frequently, contact your NT support organization.

NT: Notify the development organization.

9022 Major Admin

Cause: A bad return code was received from a request formation routine (RN, DNU, or FP).

Impact: The message, notification, or fax may have been lost. Another SEER from the generation-processing routine should explain the problem in further detail.

Action: Review the generation-processing SEER (RN, DNU, or FP). Only this user or voice service should be affected. Follow the action indicated.

NT: Try to determine the problem at the lower level. Notify the development organization.

9023 Critical Error

Cause: Unable to determine the number of channels on the system.

Impact: The OCS will not start; that is, no outcalling will take place.

Action: Contact your NT support organization.

NT: The hardware database is not working properly or has become corrupted. Explore problem using MD_MA.

9024 Critical Error

Cause: A critical internal problem within the OCS has caused it to terminate.

Impact: The OCS will not start; that is, no outcalling will take place.

Action: Contact your NT support organization.

NT: This SEER is issued for a memory/buffering problem within the OCS. This may mean that the memory set aside for the OCS was not found on the node indicated or

may be the type of memory stated was not available or some other system engineering issue could not be resolved. Notify the development organization.

9027 Info Error

Cause: Insufficient memory for OCS to open audit trail.

Impact: OCS will restart. It is possible that duplicate calls may occur and/or requests being processed may be lost.

Action: Note return codes and look for other related SEERs. If the condition persists, contact your Northern Telecom support organization.

NT: This is a memory management issue. Note the return codes and look for other related SEERs. If the condition persists, notify the development organization.

9028 Case 1. Major, Case 2. Info Error

Cause: OCS cannot acquire additional channels to perform outcalling.

Impact: OCS will retry acquiring a channel of the correct capabilities in the future. If the OCS has no channels, no further outcall deliveries will be completed until a channel has been acquired.

Action:
- Cases 1. Severity major. The system has been configured to have no channels allowing outcalling. If outcalling is desired, configure the system to include channels that allow outcalling.
- Case 2. Severity info. All channels capable of either a voice or multimedia outcall are out of service. If SEER text refers to an OCA, enable a full service voice channel capable of performing outcalling. If the SEER text refers to an MCA, enable a full service multimedia channel capable of performing fax delivery.

NT: AD_UTIL can be used to alter the retry interval for unsuccessful channel acquisitions. For voice channel acquisitions, the outcalling record, outcalling server blocked retry interval field may be changed. For multimedia channel acquisition, the FAX record, outcalling server (FAX) blocked retry interval field may be changed.

9029 Info Admin

Cause: The request is invalid or the request cannot be serviced due to a lack of channels with the correct capabilities.

Impact: The request type will not be available.

Action: If the request is invalid, reboot the system. Contact your Northern Telecom support organization if the problem is not cleared. If the request is valid, provide channels that are capable of handling the desired requests.

NT: If the request is invalid, reload the system tapes. If the request is valid, the system may have been configured without the channels required to perform the request. Verify by checking the number and the types of channels stated in the OCS STARTLIST parameters.

Class 91 Message Waiting Indicator (MWI) Audit

Introduction

The Message Waiting Indicator (MWI) audit task is a background task which runs periodically to ensure that the MWI is properly turned on for all mailboxes which have new messages. Normally the MWI is turned on immediately whenever a new message is deposited in a mailbox. However, some conditions, such as a switch reboot or an outage in the SMDI or AML/ISDN/AP link, can cause the MWI to be lost for some or all mailboxes. The purpose of the MWI audit is to ensure that no message waiting indications are lost permanently.

The MWI Audit is not essential to the normal operation of the system. It merely provides a “safety net” in case of certain unexpected failures.

In a system with multiple user volumes, there will be multiple MWI audit tasks, one per user volume.

Reports

9101 Minor Error

Cause: The MWI audit task cannot register to the name server with the name “mwiaudit_<node>” where <node> is the node number that the MWI audit task is running on.

Impact: MWI audit will still run at scheduled times. This MWI audit task cannot be triggered by link outage or setMWI utility.

Action: Look up the return code to identify the real problem.

NT: Same as action

9102 Minor Error

Cause: There is a problem trying to obtain information from a particular user. The user cabinet name is specified in the SEER. Possible causes for the problem are:

1. Failed to open the specified user's cabinet.
2. Failed to obtain the profile FIR from the cabinet.
3. Failed to retrieve the client ID from the cabinet.
4. Failed to open the profile file.
5. Failed to read the personal message record from the profile.

Impact: There is no MWI audit being performed on the user specified in the SEER. This mailbox may be corrupted.

Action: Look up the return code to identify the real problem. Determine if the mailbox is working properly. If not try deleting and recreating the mailbox. If problem persists, contact your NT support organization.

NT: Use the MD utility to open the mailbox. Ensure cabinet and profile are correct.

9103 Minor Error

Cause: One of several failures in preparing for an audit.

1. Failed to obtain the system profile FID.
2. Failed to open the system profile.
3. Failed to read the Organization Basic Record.
4. Failed to read the Organization Feature Record.
5. Failed to obtain the FID of the "/<2 | 20x>/users" cabinet where <2 | 20x> is either 2 if MWI audit is running on node 1 or 200+<node #> for all other nodes.

Impact: No MWI audit will be performed for this session on this volume.

Action: Look up the return code to identify the real problem.

NT: Same as action

9104 Info System

Cause: Time for a regular MWI audit.

Impact: A MWI audit has begun.

Action: None

NT: None

9105 Info System

Cause: The MWI audit either has checked through all users or there was a problem.

Impact: The MWI audit is finished.

Action: None

NT: None

9106 Info System

Cause: Other task has triggered a MWI audit.

Impact: The MWI audit has begun.

Action: None

NT: None

9107 Info System

Cause: Other task has requested the MWI audit task to stop auditing.

Impact: The MWI audit will stop.

Action: None

NT: None

9109 Info Admin

Cause: 1 The mailbox either has not been logged in for at least 30 days.

2. The mailbox was created when the system was not running normally.

Impact:	Case 1.	The stale mailbox will consume disk space from receiving broadcast messages.
	Case 2.	A mailbox not created during normal system operation may indicate a security problem.
Action:	Case 1.	Remove the stale mailbox if it is not in use.
	Case 2.	Remove and re-add the mailbox if it is valid and the SEER say the mailbox has bad creation time.
NT:	Case 1.	Remove the stale mailbox if it is not in use.
	Case 2.	Remove and re-add the mailbox if it is valid and the SEER say the mailbox has bad creation time.

Class 92 Delivery to Nonusers (DNU)

Introduction

Delivery to Nonusers (DNU) is part of the outcalling server. This DNU software schedules and controls the placement of outgoing delivery to nonuser calls.

The DNU-OCS (Delivery to Nonusers Outcalling Service) communicates with and uses many different parts of the Meridian Mail system. Problems can be isolated to just one user or can affect all outcalling operations. There are four classes of problem severity:

- Critical: Outcalling will cease or not be operating properly.
- Major: Some notifications or messages may be lost. Outcalling will continue but the results are not guaranteed.
- Minor: May continue without adverse effect.
- Info: Normal event worthy of logging.

A Class 92 SEER contains:

- Indication of which DNU-OCS operation failed
- Lower level return code

Reports

9201 Critical Admin

Cause: Delivery to nonuser request processing routines could not be initialized.

Impact: Delivery to nonusers will not be available on the system.

Action: Reboot the system. Contact your NT support organization if the problem is not cleared.

NT: Reload system tapes. If this does not fix the problem, notify the development organization (NT-TOR).

9205 Major Admin

Cause: Trying to send a message which is not a DNU message.

Impact: DNU will not send the message.

Action: Contact your Northern Telecom support organization.

NT: Look for other related SEERs. If the condition persists, notify the development organization.

9206 Major Admin

Cause: Failed to read a DNU Message or DNU cabinet file information record.

Impact: The OCS will cancel the DNU message and list the cancellation in the audit trail. If the DNU cabinet could not be read then all DNU requests for that user volume will be cleared and recovered again.

Action: If recovery does not take place, as indicated by the appearance of the 9010 Debug SEER saying “OCS: Recovery Complete”, then a lower level problem may exist. For example, the volume server or a node could have gone down. If the condition persists, contact your NT support organization.

NT: Look for other related SEERs. If the condition persists notify the development organization.

9207 Major Error

Cause: The version of a message is invalid.

Impact: A message with a version number greater than this release of software has been found. This may be due to a mismatch of software.

Action: Contact your NT support organization.

NT: A wrong message version was found. The most likely cause is a software version mismatch. For example, a site having a new version of software could have been restored with an older version of software. Notify the development organization if the problem cannot be determined.

9208 Major Admin

Cause: A command issued to the OCS failed. The OCS could have terminated.

Impact: OCS function failure will not cause delivery loss of messages to nonusers. The MT will try to deliver the message to the outcalling server after a series of delays. If a message cannot be delivered, a non-delivery notification (NDN) will be returned. However, if the OCS has terminated and has not been restarted no further outcalling sessions will be possible.

Action: The OCS has probably terminated due to another kind of failure. Look for SEERs related to OCS termination. Once the cause has been identified and remedied, the OCS should begin to function. A node going out and then back into service can also cause OCS function failure.

NT: If the OCS has terminated and has not restarted, look for other related SEERs, check the STARTLIST, and the status of the nodes. If the problem cannot be resolved, notify the development organization (NT-TOR).

9209 Major Admin

Cause: A problem has occurred starting a recovery task.

Impact: Another recovery attempt will be made five minutes later. However, if this problem continues without the 9010 "OCS: Recovery Complete" debug SEER, then DNU for this user volume may not work.

Action: If the non-recovery situation continues, contact your NT support organization.

NT: Notify the development organization (NT-TOR).

Class 93 Remote Notification (RN)

Introduction

Remote Notification (RN) is part of the outcalling server. This section of software, schedules and controls the placement of outgoing Remote Notification calls.

The RN-OCS communicates and uses many different parts of the Meridian Mail system. Some problems may be isolated to just one user or may affect all outcalling operations.

- Critical: Outcalling will cease or will not operate properly.
- Major: Some notifications or messages may be lost. Outcalling will continue but the results are not guaranteed.
- Minor: Outcalling may continue without adverse effect.
- Info: Normal outcalling events worthy of logging.

A Class 93 SEER contains:

- Indication of which RN operation failed
- Lower level return code

Reports

9302 Major Error

Cause: Outcalling has not been configured to handle RNs for the user's volume.

Impact: RNs for users on the volume will not be delivered. The outcalling audit trail will show that the RN could not be delivered.

Action: This is a system configuration problem. Contact your NT support organization.

NT: Make sure all user volumes are parameters to the OCS in the startlist. If the problem cannot be resolved, contact the development support organization.

9303 Critical Admin

Cause: RN was unable to register itself as a request type with the OCS.

Impact: RN will not be available on the system.

Action: Reboot the system. If the problem does not clear, contact your Northern Telecom support organization.

NT: Reload the system tapes. If this does not fix the problem, notify the development organization.

9305 Major Admin

Cause: A command issued to the OCS failed. The OCS could have terminated.

Impact: The fact that the OCS is not functioning will not cause the loss of any RNs because they will be recovered when the OCS restarts. However, if the OCS has terminated and is not restarting then there can be no further outcalling sessions.

Action: The probable cause is that the OCS has terminated due to another kind of failure. Look for other SEERs related to the OCS's possible termination. Once restarted this problem should disappear.

NT: If the OCS has terminated and has not restarted, look for other related SEERs, check the STARTLIST, and the status of the node. If the problem cannot be resolved, notify the development organization.

9306 Major Admin

Cause: Failed to read or update a user's personal profile. This may be because:

1. The user's personal profile has become corrupted or unavailable due to some access problem. For example a volume server/node could have gone down.
2. The user has been deleted.

Note: Because the personal profile is inaccessible, no information about the user is printed.

Impact: A Remote Notification will have been lost for the user.

Action:
1. Look up the lower level return code and follow the advice given. This may involve removing and recreating the user.
2. If the user was deleted deliberately, no action is needed.

If the user was deleted by accident, recreate the user.

NT:
1. Look for other related SEERs. If the SEER text refers to an orphan cabibnet, use MD to remove it. If the condition persists notify the development organization.
2. If the user was deleted deliberately, no action is needed.

9307 Major Admin

Cause: RN recovery task problems.

Impact: Recovery will be re-attempted five minutes later. If the 9010 “OCS: Recovery Complete” debug SEER does not appear, the RN for this user volume may not work.

Action: If the non-recovery situation continues, contact your NT support organization.

NT: For some reason the OCS has not been able to recover remote notification. This may be due to a user volume being offline or some other low level problem. Notify the development organization if the problem cannot be determined.

Class 94 Admin Server (AS)

Introduction

The Admin Server (AS) is critical program multi–server. It supports Integrated Mailbox Administration (IMA) requests from Meridian 1. Requests come in through the AMLH and replies are sent over the same route. Voice mailbox users can be added, deleted, changed, uploaded, or audited from Meridian 1 using this process.

Reports

9401 Major Error

Cause: Problems with the allocation of buffer spaces in the program.

Impact: The AS will be restarted by the PRM.

Action: If the error persists, contact your Northern Telecom support organization.

NT: Obtain the complete SEER using SE_PKG. This will give the program's address and locale. Determine the problem from the locale. Then notify the development organization of the program error.

9402 Major Error

Cause: Program registration failure or a explicit termination request from PRM.

Impact: AS will be restarted by the PRM.

Action: If the error persists, contact your Northern Telecom support organization.

NT: Obtain the complete SEER using SE_PKG. This will give the program's address and locale. Determine the problem from the locale. Then notify the development organization of the program error.

9404 Minor Error

Cause: Communication with the MMI server failed.

Impact: Session arbitration will be in error.

Action: Contact your Northern Telecom support organization.

NT: Restart the MMI server using PGM_PKG. Obtain the complete SEER using SE_PKG. This will give the program's address and locale. Determine the problem from the locale. Then notify the development organization of the program error.

9405 Minor Error

Cause: Failure to read system organization data.

Impact: System information, such as feature set and languages, is not available.

Action: Contact your Northern Telecom support organization.

NT: Restart the AS using PGM_PKG. If problems persist, notify the development organization of program error.

9406 Minor Error

Cause: A general or miscellaneous problem.

Impact: There is a lack of information to proceed further with provisioning.

Action: Contact your Northern Telecom support organization.

NT: Try the provisioning request again. If problems persists, notify your development organization of program error.

9410 Major Error

Cause: An admin server operation related to user administration has failed.

Impact: User–related administration operation initiated from the switch will likely not be successfully completed.

Action: In all cases, it is advisable to look at the return code and text of the message for more details.

Possible text messages, including descriptions and actions, are as follows:

Text 1: AS:Could not convert data for <user>:

Description: User data given by switch is invalid.

Action: Check the DNs and user name fields for correct lengths and valid characters. Retry the operation.

Text 2:	AS:Delete user failed:
Description:	A request was made to delete a user but it failed due to a call to a low level procedure.
Action:	Retry the operation and check the return code.
Text 3:	AS:Cust or UCOS data read problem:
Description:	The Class Of Service used in the current user administration operation was not found or the data was unobtainable due to a lower level error.
Action:	Check the return code for more information.
Text 4:	AS:DR retrieval problem:
Description:	Unable to get user data from the DR when trying to modify, delete, or query a user. Possibly there are DR problems.
Action:	Check the return code for more information.
Text 5:	AS:Release resource failed:
Description:	Unable to unlock a user so that another application can access it. For example, the MMI on Meridian Mail.
Action:	Check for other admin server SEERs that may have been generated. If the user is left in the locked state, the operation that was done from the switch should be run again to attempt to unlock the user properly.
Text 6:	AS:Cannot open Network DB:
Description:	Since the network database cannot be opened, the admin server likely cannot validate the DN sent to it from the switch, and thus the user administration operation will fail.
Action:	Check the return code for network database problems.
Text 7:	AS:MMUI subscriber reset password failed:
Description:	The admin server was not able to reset the password of a user to the prime DN because the prime DN was greater than 16 digits.
Action:	Any changes to the password of the user will have to be done manually.
Text 8:	AS:Billing table full:

Description: Changing a user to a certain billing type failed because the limit of that type of user allowed on the system has already been reached.

Action: Remove unneeded users so that more users can be added whenever the billing table is filled with that type of user.

NT: Look at the return code and text of the message for more details.

9449 Minor Error

Cause: Communication with AMLH failed.

Impact: Requests from the AS are suspended.

Action: Contact your Northern Telecom support organization.

NT: If no automatic recovery occurs, other SEERs of greater severity will be reported. If no other SEERs are reported, restart the AS using the PRM_PKG. If problems persist, notify your development oganization of program error.

Class 100 System Operation (SYSOP)

Introduction

System Operation installs or updates the software on a hardware platform.

The following SEERs may occur during one of SC operations which include:

- installation
- upgrade
- conversion
- feature expansion
- hardware modification (add channels, add nodes)
- platform conversion
- disk operations (storages expansion, disk-to-disk back up, disk shutdowns).

Reports

10002 Critical Error

Cause: Failed to save current DSP_CONFIG file.

Impact: The operation will abort.

Action: Retry the operation. If the problem persists gather the SEERs and return code information and contact your Northern Telecom support organization.

NT: The most probable cause is a faulty disk. If the SEER and return code reported support this and the system is shadowed, a disk problem can be verified by repeating the operation on the shadow disk. If the problem persists contact the NT support organization.

10003 Critical Error

Cause: Failed to move voice service cabinet.

Impact: The operation will abort.

Action: Rerun the operation. If it fails again, restore original (backup) system as described in *System Administrator Tools*, NTP 555-7001-305, and contact your Northern Telecom support organization (NT_TOR).

NT: Investigate the cause based on the given SEER and return code information. A probable cause is that the volume the voice services are being moved to is too full to hold the voice services. If this is the case, either make space on the volume, or move the voice services to a different volume. If the problem persists, gather the SEER and return code information, and contact your Northern Telecom support organization (NT–TOR).

10004 Critical Error

Cause: Attempted to add a node without using a keycode.

Impact: The operation will abort.

Action: The current operation does not support the addition of a new node. If a new node was added to the system, either modify the node using Node Configuration in the Hardware Administration facility, or retry the operation with the new node powered off.

NT: The user's hardware does not match the keycode. Determine why, and issue a new keycode, if required. If this does not solve the problem, contact your Northern Telecom support organization (NT_TOR).

10005 Critical Error

Cause: Expected more voice ports in the linked list than were found.

Impact: The operation will abort.

Action: A system configuration error has occurred. Contact your Northern Telecom representative, and report the SEER and return code information.

NT: An internal error has occurred during the operation. Contact your Northern Telecom support organization (NT–TOR).

10008 Critical Error

Cause: There was an error adding users during AutoConfigure.

Impact: The operation will abort.

Action: The system has completed installation, but only some of the users may have been added. Either rerun the operation, or add the remaining users manually. If the problem persists or no users can be added manually, call your Northern Telecom representative.

NT: Check the SEER and return code information for the probable cause. If the problem persists, contact your Northern Telecom support organization (NT–TOR).

10014 Critical Error

Cause: Failed to convert the hardware database

Impact: The operation will abort

Action: Rerun the operation. If it fails again, restore the previous release of Meridian Mail software using the previous release Install/Data tape. Refer to the "System Installation and Modification Guide" for the previous release. Contact your Northern Telecom support organization.

NT: Check the hardware database to ensure that none of the records are corrupted. If there are corrupted records, correct them and retry the operation. If the operation fails, collect the SEER and return code information and contract the NT support organization.

10015 Critical Error

Cause: Failed to convert personal profiles.

Impact: The operation will abort.

Action: Rerun the operation. If it fails again, restore the original (backup) system according to the *System Installation and Modification Guide*, NTP 555–7001–215, and contact your Northern Telecom support organization.

NT: Investigate the cause based on the given SEER and return code information. Ensure that the personal profiles exist, and that they are not corrupted. Rerun the operation, and if the problem persists gather the SEER and return code information and contact the NT support organization.

10016 Critical Error

Cause: Failed to convert system profile.

Impact: The operation will abort.

Action: Rerun the operation. If it fails again, restore the original (backup) system according to the *System Installation and Modification Guide*, NTP 555–7001–215, and contact your Northern Telecom support organization.

NT: Investigate the cause based on the given SEER and return code information. Ensure that the system profile exists, and that it is not corrupted. Rerun the operation, and if the problem persists gather the SEER and return code information and contact the NT support organization.

10017 Critical Error

Cause: Failed to convert Voice Services.

Impact: The operation will abort.

Action: Rerun the operation. If it fails again, restore the original (backup) system according to the *System Installation and Modification Guide*, NTP 555–7001–215, and contact your Northern Telecom support organization.

NT: Investigate the cause based on the given SEER and return code information. Ensure that the system profile exists, and that it is not corrupted. Rerun the operation, and if the problem persists gather the SEER and return code information and contact the NT support organization

10018 Critical Error

Cause: Current software release is not allowed for conversion to MM9.5.

Impact: The operation will abort.

Action: The current release must be MM8 or MM9 to convert to MM9.5. If the current release is not MM8 or MM9, contact your Northern Telecom representative and inquire about upgrading to MM8 or MM9. Otherwise, rerun the operation and if it fails collect the SEERs and return code information and contact your Northern Telecom support organization.

NT: Verify that the current release is MM8 or MM9 and investigate. If the problem persists contact the NT support organization.

10025 Critical Error

Cause: Voice nodes do not contain MMP40 cards, but only the MMP40 OS was found on the tape. The return code gives the number of non-MMP40 voice nodes.

Impact: The operation will abort.

Action: Contact your Northern Telecom support organization.

NT: Contact the NT development organization.

10026 Critical Error

Cause: Voice nodes contain MMP40 cards, but the prime node does not. The return code contains a digit for each MMP40 voice node. For example, if only nodes 2 and 3 have MMP40 cards, RC=23.

Impact: The operation will abort.

Action: If your system should have only one MMP40 card, move the MMP40 card to the prime node.

If your system should have MMP40 cards in every node, contact your Northern Telecom support organization to get an MMP40 card for each node that does not have one.

NT: Contact the NT development organization.

10027 Critical Error

Cause: Some voice nodes have MMP40 cards, others do not. The return code contains a digit for each MMP40 voice node. For example, if only nodes 2 and 5 have MMP40 cards, RC=25.

Impact: The operation will abort.

Action: If your system should have only one MMP40 card, move the MMP40 card to the prime node.

If your system should have MMP40 cards in every node, contact your Northern Telecom support organization to get MMP40 cards for each voice node that does not have one.

NT: Contact the NT development organization.

10028 Critical Error

Cause: A node which formerly had an MMP40 card now has a non-MMP40 SBC. The return code contains a digit for each node which has been downgraded from MMP40. For example, if only nodes 2 and 4 have been downgraded, RC=24.

Impact: The operation will abort.

Action: Contact your Northern Telecom support organization to get MMP40 cards for the downgraded nodes.

NT: Contact the NT development organization.

10029 Critical Error

Cause: An MMP40 card has been installed on a platform that does not support it. The return code indicates the platform:

RC = 1	Option 11
RC = 2	X-Cabinet
RC = 3	SPM
RC = 4	other unsupported type

Impact: The operation will abort.

Action: Contact your Northern Telecom support organization.

NT: Contact the NT development organization.

10030 Critical Error

Cause: Unknown or invalid CPU type. The return code indicates the number of the node with the invalid CPU.

Impact: The operation will abort.

Action: Contact your Northern Telecom support organization.

NT: Contact the NT development organization.

10031 Major Admin

Cause: An unsupported hybrid system configuration is detected, which contains a MMP40 prime node and 68010 voice nodes.

Impact: The operation will abort.

Action: Remove the hybrid system configuration from the system.

If the system is a classic, replaces all 68010 CPU cards in voice nodes with MMP40 CPU cards, then re–run the operation. If the platform is supposed to be an EC–MMP40 platform, replace all 68010 CPU cards in the voice nodes with MMP40 CPU cards, then re–run the operation. If the platform is supposed to be a 68K EC, replace the MMP40 CPU card in prime node with a 68K card, then re–run the operation.

NT: If the problem persists after hardware problems have been resolved, there may be a software problem. Collect the SEER information and contact your Northern Telecom development organization.

10094 Critical Error

Cause: Error converting the hardware database. The lower level return code will indicate the actual cause of the problem.

Impact: The operation may abort.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: This could be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

10095 Critical Error

Cause: Error converting user profiles. The lower level return code will indicate the actual cause of the problem.

Impact: The operation may abort.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: This could be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

10096 Critical Error

Cause: Error converting the system profile. The lower level return code will indicate the actual cause of the problem.

Impact: The operation may abort.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: This could be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

10097 Critical Error

Cause: Error converting Voice Service files. The lower level return code will indicate the actual cause of the problem.

Impact: The operation may abort.

Action: If the operation fails then follow the system operation checklist and retry the operation.

NT: This could be a software problem. Collect the SEER information and contact the Northern Telecom support organization (NT–TOR).

10098 Critical Error

Cause: The system is currently running a software release that is not allowable for this conversion.

Impact: The operation will abort.

Action: Upgrade the system to the appropriate software release and retry the conversion.

NT: Advise customer of proper conversion path.

10099 Info Admin

Cause: Cancellation of operation requested by user.

Impact: The operation aborts.

Action: None.

NT: None

Class 101 User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data is corrupt. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. Sometimes you have to reboot the system.

Since each SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow into Classes 102 and 103.

Reports

10101 Minor Error

Cause: Attempt to add an already existing mailbox.

Impact: Mailbox cannot be added.

Action: Contact your NT support organization.

NT: Use MD_DR and MD to clean up user files.

10102 Minor Error

Cause: No users exist that satisfy the specified view criteria.

Impact: User cannot be found.

Action: Exit from user administration and then re-enter and retry the command. If the problem persists, contact your NT support organization.

NT: Use MD_DR and MD to find out the problem.

10110 Minor Error

Cause: Attempt to open a new cabinet with old one(s) still open.

Impact: Cannot update the user.

Action: Exit from user administration and then re–enter and retry command. If the problem persists, contact your NT support organization.

NT: Use MD_DR and MD to find out the problem.

10111 Minor Error

Cause: Write user not preceded by read user.

Impact: Cannot save the user.

Action: Exit from user administration and then re–enter and retry the command. If the problem persists, contact your NT support organization.

NT: Use MD_DR and MD to find out the problem.

10112 Minor Error

Cause: Delete user not preceded by read user.

Impact: Cannot delete the user.

Action: Exit from user administration and then re-enter and retry the command. If the problem persists, contact your NT support organization.

NT: Use MD_DR and MD to find out the problem.

10113 Minor Error

Cause: Write organization profile not preceded by read organization profile.

Impact: Cannot update the organizational information.

Action: Exit from user administration and then re-enter and retry command. If the problem persists, contact your NT support organization.

NT: Use MD_DR and AD_UTIL to find out the problem.

10116 Minor Error

Cause: Client ID of list entry does not exist.

Impact: Cannot update the distribution list.

Action: Exit from user administration and then re-enter and retry the command. If the problem persists, contact your NT support organization.

NT: Use MD_DR to delete the list.

Class 102 User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data is corrupt. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. Sometimes, you have to reboot the system to freshen the memory again.

Since a SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow into Class 102 and Class 103.

Reports

10200 Minor Error

Cause: Error committing voice file.

Impact: Voice file not updated.

Action: Retry command. If the problem persists, contact your Northern Telecom support organization.

NT: Look up the lower level return code which usually is found at the end of the SEER. Examine the other SEERs for more information.

10201 Major Error

Cause: The System Volume (VS1) may be full or the Security file may be corrupt.

Impact: It will not be possible to log into the MMI.

Action: Contact your NT support organization.

NT: Use the VSMUP utility to audit the system volume.

10202 Major Admin

Cause: The system volume is full.

Impact: It will not be possible to change the Administrator's password.

Action: Try again after system audits have been performed.

NT: Use the VSMUP utility to audit the system volume.

10203 Info Admin

Cause: The System Administrator failed to log on.

Impact: None

Action: None

NT: None

10204 Info Admin

Cause: Administrator Password changed.

Impact: None

Action: None

NT: None

10205 Info Admin

Cause: Alarm silenced by administrator.

Impact: None.

Action: None

NT: None

10206 Minor Error

Cause: Failed to open the security file.

Impact: AdminPlus download password not set correctly. No system impact.

Action: None required. The initial password cannot be used to download data and must be changed from the MMI whether the conversion is successful or not.

NT: None

10207 Minor Error

Cause: Failed to close the security file.

Impact: AdminPlus download password not set correctly. No system impact.

Action: None required. The initial password cannot be used to download data and must be changed from the MMI whether the conversion is successful or not.

NT: None

10208 Minor Error

Cause: Failed to find the security file record.

Impact: AdminPlus download password not initialized correctly. No system impact.

Action: None required. The initial password cannot be used to download data and must be changed from the MMI whether the conversion is successful or not.

NT: None

10209 Minor Error

Cause: Failed to get the security file FID.

Impact: AdminPlus download password not initialized correctly. No system impact.

Action: None required. The initial password cannot be used to download data and must be changed from the MMI whether the conversion is successful or not.

NT: None

10215 Minor Error

Cause: The printer dataport or window could not be opened to send data.

Impact: The printer may not run. The MMI could be unstable.

Action: Try another print function. Check the printer. If the problem persists, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10216 Minor Error

Cause: The printer dataport or window could not be opened to send data.

Impact: The printer may not run. The MMI could be unstable.

Action: Try another print function. Check the printer. If the problem persists, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10217 Major Error

Cause: The file in which the MMI text is stored is corrupt or does not match MMI software.

Impact: The MMI will not run.

Action: Contact your NT support organization.

NT: Restore the file or MMI software from tape and restart it using PRM_CONTROL.

10232 Minor Error

Cause: Tasking problem.

Impact: MMI will not poll for dynamic information.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10233 Minor Error

Cause: The MMI failed to communicate with the MMI Server program.

Impact: No arbitration will be done between user administration terminals.

Action: Contact your Northern Telecom support organization.

NT: Restart MMI_Server program using PRM_CONTROL.

10234 Minor Error

Cause: Console port speed utility failed to communicate with PRM_PROCS.

Impact: Only Node 1 console information can be viewed or modified.

Action: If there is no need to modify console port on nodes 2 to 5. Contact your Northern Telecom support organization.

NT: Use return code information to diagnose the problem. Use PRM_CONTROL to restart PRM if necessary.

10235 Minor Error

Cause: Unable to obtain console port speed information for specified node.

Impact: No console port speed information is displayed for the specified node.

Action: If rc = 2, retry. If the problem persists, run Bootrom diagnostics on MMP40 card. If rc = 3, run the Bootrom diagnostics on MMP40 card.

NT: None.

10240 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10241 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10242 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10243 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10244 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10245 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10246 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10247 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10248 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

10249 Minor Error

Cause: Problem with MMI, system, file system, Directory Server or Volume Server software.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI. If the problem remains, back up the system and restart.

10250 Major Error

Cause: MMI could not allocate storage for the requested operation.

Impact: Add, Delete or Modify of User Profile Data cannot be performed.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10251 Minor Error

Cause: MMI failed to gain access to or close the Networking Database.

Impact: Remote Users and Networking validation will fail.

Action: Exit and re-enter User Administration.

NT: Use MD to verify existence of the Networking Database.

10272 Minor Error

Cause: MMI failed to Print OM files, such as the traffic and Voice Menu files.

Impact: Specified OM reports cannot be printed.

Action: Check the printer connection. If the problem persists, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart OM Server. If this fails, use PRM_CONTROL to Restart MMI.

10273 Minor Error

Cause: MMI failed to view OM files, such as traffic and Voice Menu files.

Impact: Specified OM reports cannot be viewed.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart OM Server. If this fails, use PRM_CONTROL to restart MMI.

10275 Minor Error

Cause: MMI failed to view next SEER in SEER file.

Impact: Specified SEERs cannot be viewed.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the SEER server and if this fails, to restart MMI.

10278 Minor Error

Cause: MMI was unable to get the specified alarm status because of a communication problem.

Impact: Alarm cannot be silenced.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the SEER server.

10280 Major Error

Cause: MMI failed to obtain storage to perform organization administration operations.

Impact: MMI unable to read or write to the organizational administration profile.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10281 Major Error

Cause: MMI failed to obtain resources to perform organization operations.

Impact: MMI unable to read or write to organizational profile.

Action: Contact your Northern Telecom support organization.

NT: Ensure no other utilities are running. Then use PRM_CONTROL to restart the MMI.

10282 Minor Error

Cause: MMI failed to read the organization profile.

Impact: It will not be possible to perform organization administration operations.

Action: If problem persists, contact your NT support organization.

NT: Ensure no other utilities are running. Use PRM_CONTROL to restart the MMI.

10283 Minor Error

Cause: MMI failed to write organizational profile.

Impact: Organization changes made in the session may be lost.

Action: Ensure that no other utilities are running. If problem persists, contact your NT support organization.

NT: Ensure no other utilities are running and then use PRM_CONTROL to restart the MMI.

10284 Minor Error

Cause: MMI failed to Restart OM Server.

Impact: Changes made to OM Schedule may not take effect.

Action: Contact your NT support organization.

NT: Use PRM_CONTROL to restart OM Server.

10285 Minor Error

Cause: MMI failed to close all files.

Impact: The system may slow down because of this system resource problem.

Action: Exit and re-enter the screen. If the problem persists, contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10286 Minor Error

Cause: MMI failed to restart or stop the SEER printer.

Impact: Changes to start or stop SEER printing will not take effect.

Action: Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use the PRM_CONTROL to restart the MMI.

10287 Minor Error

Cause: MMI encountered an error while validating a Broadcast Mailbox.

Impact: The change to the Broadcast mailbox number is not accepted.

Action: Exit the form and try the command again. If the problem persists, contact your Northern Telecom organization.

NT: Use PRM_CONTROL to restart the MMI.

10289 Major Error

Cause: Failed to access the Customer Profile during Customer Administration.

Impact: No Customer administration will be available.

Action: Logout and log back into customer administration screen. If problem persists, contact your Northern Telecom organization.

NT: Use MD and AD_UTIL to examine Customer Profiles.

10290 Minor Error

Cause: MMI failed to view user. May indicate data corruption.

Impact: The Find User command will not work.

Action: Contact your NT support organization.

NT: Use VSMUP to audit the system and user volumes. Use MD_DR to verify the user in DR.

10292 Info Admin

Cause: 95% or 100% of mailbox limitation reached.

Impact: Administrator will not be able to add users when 100% is reached.

Action: Contact your Northern Telecom support organization.

NT: Contact NT Sales to determine if the customer desires to purchase additional mailboxes.

10297 Minor Error

Cause: OCS did not register user or organizational changes.

Impact: Outcalling may temporarily not work properly.

Action: If this is a user change, the user's <site ID/location ID/mailbox ID> will be indicated in the SEERs. Simply deposit a message in the user's mailbox to reactivate their remote notification, or try modifying the same user and saving the changes again.

If the change is for the organization-wide outcalling administration, try to modify and save the fields again; if it still fails, the changes will not be reflected in outcalling until the next reboot.

NT: If the change is for the organization-wide outcalling administration, use PRM_CONTROL to restart the OCS.

10298 Minor Error

Cause: Failure to add or modify dynamic personal or organizational records.

Impact: User or organizational information will be incomplete.

Action: Exit to Main Menu and reselect command. If the problem persists, contact your Northern Telecom support organization.

NT: Use AD_UTIL to create or change the record.

10299 Minor Error

Cause: Failure to record Personal Verification.

Impact: Personal Verification recording was not created or updated.

Action: Exit to Main Menu and re-select User Administration and retry command. If it still fails, contact your NT support organization.

NT: Use the PRM_CONTROL to restart the MMI.

Class 103 User Interface (UI)

Introduction

The User Interface (UI), better known as the Man-Machine Interface (MMI), is a set of instructions and screens that let the user view and change the contents of the Meridian Mail system, and operate various programs of the system.

Many of these SEERs reveal that data is corrupt. Sometimes, these errors are just temporary and all you have to do is exit and re-enter a screen or try a command again. Sometimes, you have to reboot the system to freshen the memory again.

Since a SEER class can only hold 99 SEERs and the MMI produces more than this number, MMI SEERs overflow to Class 02 and Class 103.

Reports

10300 Minor Error

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

Action: Contact your NT support organization.

10301 Minor Error

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10302 Minor Error

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

10303 Minor Error

Cause: Failed to perform the requested operation.

Impact: The requested operation will be lost. This may lead to loss or corruption of User Profile data.

NT: Use PRM_CONTROL to restart the MMI. Try AUDIT1 from VSMUP.

10304 Major Error

Cause: MMI failed to obtain storage to perform the modify operation on a list.

Impact: The list cannot be modified.

Action: Contact your NT support organization.

NT: Use PRM_CONTROL to restart the MMI. Try AUDIT1 from VSMUP.

10305 Minor Error

Cause: The terminal was reset during the operation.

Impact: Changes to the list will not be saved.

Action: Try the command again.

NT: None

10306 Minor Error

Cause: MMI failed to validate the mailbox for a list.

Impact: The specified mailbox cannot be used in a list.

Action: Try the command again.

NT: None

10307 Minor Error

Cause: MMI failed to read the list of mailboxes.

Impact: It will not be possible to display the lists of mailboxes.

Action: Try the command again.

NT: Use PRM_CONTROL to restart the MMI.

10308 Minor Error

Cause: MMI failed to close all files in the lists operation.

Impact: Possible resource problem.

Action: Try the command again. If the problem persists, contact your NT support organization.

NT: Use PRM_CONTROL to restart the MMI.

10309 Major Error

Cause: MMI failed to obtain storage to perform this list operation.

Impact: The distribution list cannot be modified.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10310 Major Error

Cause: MMI failed to obtain resources to perform this list operation.

Impact: The Distribution List cannot be modified.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10311 Minor Error

Cause: MMI failed to add a list.

Impact: The Distribution List is not added.

Action: Contact your NT support organization.

NT: Use VSMUP to audit VS and try the command again.

10312 Minor Error

Cause: MMI failed to delete a list.

Action: Contact your NT support organization.

NT: Use VSMUP to audit the system and user volumes and try the command again.

10320 Minor Error

Cause: Corruption in Hardware Database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

Action: Log out. Log in. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use MD_MA to check the hardware database.

10321 Major Error

Cause: No Hardware Database cabinet exists which indicates that the Hardware Database is corrupt.

Impact: It will not be possible to read hardware records.

Action: Log out. Log in. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use MD_MA to check the hardware database.

10322 Minor Error

Cause: Tasking problem.

Impact: System Status Screen, System Card Screen, or System Channel Screen will not be updated.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10330 Minor Error

Cause: Corruption in hardware database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

Action: Log out. Log in. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use MD_MA to check the hardware database.

10331 Major Error

Cause: No Hardware Database cabinet exists which indicates that the hardware database is corrupt.

Impact: It will not be possible to read hardware records.

Action: Log out. Log in. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use MD_MA to check the hardware database.

10332 Major Error

Cause: The MMI has used all of its available heap.

Impact: It will not be possible to allocate storage for the operation.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10333 Minor Error

Cause: Corruption in Hardware Database. Mismatch of hardware information.

Impact: It will not be possible to read hardware records.

Action: Log out. Log in. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Use MD_MA to check the hardware database.

10334 Minor Error

Cause: Failed to update Cobra with the new port speed.

Impact: The online update of the new port speed has failed. No system impact.

Action: Either

1. Change the port speed to the old value and press “Save”. After this, try to change the port speed to the desired value again. It is recommended that this action be tried first.

or

2. Reboot the system for the new port speed to take effect.

NT: None

10335 Minor Error

Cause: Updates to hardware database fail; specifically, the new port speed cannot be saved in the hardware database.

Impact: The change of port speed fails. No system impact from the SEER text.

Action: Take appropiate action based on the return code.

NT: Verify that hardware database exists. Use MD_MA utility to enter the new port speed and reboot system for it to take effect.

10336 Minor Error

Cause: Node number out of range.

Impact: A MMLink or Adminplus dataport on a non-existing node is defined in the hardware database. No system impact.

Action: Contact NT representatives.

NT: Dataport cannot be used. This dataport should be deleted or modified using MD_MA at ETAS level so that it resides on a valid node.

10337 Minor Error

Cause: An invalid baudrate value is stored in the hardware database. Modify hardware dataport may not be usable.

Impact: Invalid baudrate.

Action: At TOOLS level, select a valid baudrate for the dataport and save it. The invalid baudrate will then be overwritten with a valid value.

NT: None

10340 Major Error

Cause: The Volume Status information could not be obtained.

Impact: Volume Status screen information will not be available.

Action: Log out and log in again. Try the command again. If the problem persists, contact your Northern Telecom support organization.

NT: Check the return code in the SEER, and take the appropriate action for that return code.

10341 Major Error

Cause: The Backup Task was found to be dead.

Impact: It will not be possible to perform a backup.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10342 Major Error

Cause: Failed to initiate the backup task.

Impact: It will not be possible to perform a backup.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI. If this fails, reboot the system.

10343 Minor Error

Cause: An attempt was made to log in to a user administration terminal without the multiple-administrator terminal feature enabled.

Impact: Login to a user administration terminal is rejected.

Action: Contact your Northern Telecom support organization.

NT: If this feature was supposed to be enabled, enable the multiple-administration terminals feature using AD_UTIL.

10344 Minor Error

Cause: A scheduled backup was attempted while another backup was in progress.

Impact: Scheduled backup did not run.

Action: Reschedule scheduled backup.

NT: None

10350 Minor Error

Cause: Failed to retrieve audit trail records.

Impact: Cannot display audit trail records.

Action: Try to view the Audit Trail the following day and if still incompatible, contact your NT support organization.

NT: Check the return code on audit trail SEER to determine if it is a disk access problem.

10351 Minor Error

Cause: Incompatible version number for Audit Trail.

Impact: None. The old version of Audit Trail records will not be displayed.

Action: Wrong version of Audit Trail files exist on the system. Contact your NT support organization.

NT: Use utility MD to delete old Audit Trail files under the cabinet /1/OCS.

10360 Major Error

Cause: Failed to obtain resources for Class of Service Administration.

Impact: Class of Service Administration cannot be performed.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI.

10361 Major Error

Cause: Failed to read the specified Class of Service.

Impact: The Class of service record may be corrupted.

Action: Contact your Northern Telecom support organization.

NT: Use AD_UTIL and MD_DR to check the entry. Delete it if it is corrupted.

10362 Major Error

Cause: Failed to write the specified Class of Service.

Impact: The Class of Service record may be corrupted.

Action: Contact your Northern Telecom support organization.

NT: Use AD_UTIL and MD_DR to check the entry. Delete it if it is corrupted.

10363 Major Error

Cause: Failed to delete the specified Class of Service.

Impact: The Class of Service record may be corrupted.

Action: Contact your Northern Telecom support organization.

NT: Use AD_UTIL and MD_DR to check the entry. Delete it if it is corrupted.

10399 Major Error

Cause: Failed to register the MMI.

Impact: MMI pass through will not work.

Action: Contact your Northern Telecom support organization.

NT: Use PRM_CONTROL to restart the MMI. If the problem persists, backup the system and reboot.

Class 104 Voice Menus, Announcements, Time-of-Day Services, and Fax Information Service (VMU)

Introduction

Voice Menus, Announcements, Time-of-day, and Fax Information Service (FIS) are contained in one single piece of software (VMU).

With Voice Menus service, the Administrator can set up customized call processing applications allowing callers to listen to recorded information, leave messages in specific mailboxes or speak to specific mailbox owners. Each menu can have 12 actions, which correspond to the keys on a telephone.

The Announcements service provides an information recording.

The Time-of-Day service starts another service based on business days and hours, nonbusiness days and holidays.

Fax Information Service (FIS) allows callers to retrieve faxes.

VMU errors can cause Voice Menu, Announcement, Time-of-day, or Fax Information Service to:

- become inaccessible
- be terminated due to inaccessibility, disconnection, or transfer to an operator

A Class 104 SEER generally contains:

- the service file name “Serv. File [FILENAME]” (FILENAME is the voice service ID number defined by the administrator)
- an auxiliary string, “Aux [STRING]”, for example, DN

- an auxiliary integer, “AuxI [INTEGER]”, for example, Record ID
- a lower level return code, that gives more information on the problem

Reports

10402 Minor Error

Cause: VMU failed to transfer a caller in a voice service to the System Attendant.

Impact: The service will be terminated and the call will be disconnected.

Action: Contact your NT support organization.

NT: Look up the return code for more specific information on the problem.

10403 Minor Error

Cause: VMU failed to disconnect call. The return code isolates the cause.

Impact: The call will be disconnected at a later point.

Action: Contact your NT support organization.

NT: Look up the return code for more specific information on the problem.

10404 Major Error

Cause: VMU failed to initialize the System and Voice Service prompt files.

Impact: The caller will be transferred to the revert DN. Depending on the kind of low level error, the prompts may not be available to other services.

Action: Contact your NT support organization.

NT: Look up the lower level return code (usually appearing at the end of the SEER) and examine other SEERs to obtain more information.

10405 Major Error

Cause: VMU failed to play a prompt from the System or Voice Service prompt files. The AuxI value is the prompt number.

Impact: The caller will be disconnected. Depending on the kind of low level error, prompts may not be available to other voice services.

Action: Call up the service and perform the set of actions that lead to this problem. If the problem persists, check the VX (class 21) SEER given by the return code and follow the instruction.

NT: Look up the return code and examine other SEERs.

10406 Major Error

Cause: VMU failed to call revert DN. The return code isolates the cause.

Impact: The caller will be transferred to the System Attendant instead of the revert DN.

Action: Check that the revert DN, in the specified service file, is valid. If so, contact your NT support organization.

NT: Look up the return code and examine other SEERs.

10407 Major Error

Cause: VMU failed to open the System and Voice Service prompt files.

Impact: The caller will be transferred to the revert DN. Depending on the kind of low level error, the prompts may not be available to other services.

Action: Contact your NT support organization.

NT: The AuxI value is the language number. Look up the lower level return code and examine other SEERs for more information.

10408 Major Error

Cause: VMU failed to switch to specified service.

Impact: An error message will be played to the caller, but the caller will be allowed to perform other operations.

Action: Check the values in the Channel Allocation Table and contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information.

10409 Minor Error

Cause: The Service Definition file found did not match the requested type, for example it is not a Voice Menu, Announcement Time-of-day or Fax Information Service file. The request could have come from the VSDN table (directly dialed), a Voice Menu, or a Time-of-Day controller.

Impact: An error message will be played to the caller and the service will be terminated.

Action: If the service definition matches, contact your NT support organization.

NT: Confirm that the administrator has matched the service type in the VSDN table or voice menu definition with the type of the definition (using the ID number).

10410 Minor Error

Cause: The voice service file version is not compatible with existing software after conversion.

Impact: An error message will be played to the caller, and the service will be terminated.

Action: Contact your NT support organization.

NT: This is a software release problem. Old files were not upgraded during conversion; notify the development organization.

10411 Minor Error

Cause: Error occurred while reading a voice service file.

Impact: An error message will be played to the caller. The service may be terminated.

Action: Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information.

10412 Minor Error

Cause: A service file's voice prompts are corrupt. The return code isolates the cause.

Impact: An error message will be played to the caller. The service may be terminated.

Action: Delete and recreate the voice menu or Announcement Service file. If the problem remains or occurs again, contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information.

10413 Minor Error

Cause: VMU failed to play a service file's voice prompt. The AuxI value is the file record ID number.

Impact: An error message will be played to the caller. The service may be terminated.

Action: Delete and recreate the voice menu or Announcement Service file. If the problem still remains or occurs again, contact your NT support organization.

NT: Look up the lower level return code (usually appearing at end of SEER) and examine other SEERs for more information.

10414 Minor Admin

Cause: No greeting, choices, or announcement was recorded for the service file.

Impact: An error message will be played to the caller. The service may be terminated.

Action: If the service is a voice menu, record a greeting or choices prompt. If it is an announcement, record the announcement. If it is a Fax Information Service, record a confirmation prompt. If the error still occurs then contact your NT support organization.

NT: Look up the lower level return code (usually appearing at end of SEER) and examine other SEERs for more information.

10415 Minor Error

Cause: VMU failed to place a call from a voice menu. The Aux value is the DN being called and the AuxI value is the digit entered from the key pad.

Impact: An error message will be played to the caller, and the caller will be transferred to the service's Revert DN.

Action: Ensure that the DN specified in the voice menu is valid. If the DN is valid, look up the return code. If unclear, contact your Northern Telecom support organization.

NT: Check the DN in the voice menu by dialing it. If the DN is valid, check it against the DN printed in the Aux value. If both checks are good, look up the return code in the VSS; it provides more information on the failed call.

10416 Minor Error

Cause: The service stack is temporarily corrupt. The Aux value is the File ID being stacked.

Impact: An error message will be played to the caller and the service will be terminated.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10417 Minor Error

Cause: VMU failed to initiate the voice service task.

Impact: The call will be disconnected.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10418 Major Error

Cause: Voice Menus cannot communicate with the lower level software.

Impact: A channel may not be able to bring up the voice menu, announcement, Fax Information Service or time-of-day service.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10419 Major Error

Cause: VMU failed to query VSS information.

Impact: The call will be terminated.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10420 Major Error

Cause: VMU failed to close a Voice Control Block. The file, associated with the open voice control block, may not have closed properly.

Impact: The next voice prompt file may not be opened. On systems with multilingual prompts, if the prompts can still be played they may be in the wrong language.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10421 Major Error

Cause: VMU failed to close the voice service file.

Impact: This may cause the next service file not to be opened. On systems with multilingual prompts, if the prompts can still be played they may be in the wrong language.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10422 Minor Admin

Cause: A Voice Menu was found instead of the expected Announcement.

Impact: The service terminates and the caller is disconnected.

Action: A Voice Menu Service file id has been set up as an Announcement in either the VSDN table or the Announcement. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition ID to match the same type of service, should correct this problem. If the problem persists, then the service definition file is corrupt and requires a deletion. Delete the service ID and recreate it.

10423 Minor Admin

Cause: An Announcement was found instead of the expected Voice Menu.

Impact: The service will terminate and the caller is disconnected.

Action: An Announcement file id has been set up as a Voice Menu Service in either the VSDN table or the Voice Menu Service. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition ID to match the same type of service, should correct this problem. If the problem persists, then the service definition file is corrupt and requires a deletion. Delete the service ID and recreate it.

10424 Minor Error

Cause: The VSS falsely told the service that the user entered a digit.

Impact: The digit will be ignored.

Action: If the error persists, contact your NT support organization.

NT: Try to trace the problem by examining other SEERs.

10425 Minor Admin

Cause: One of the internal lists of actions was found to be invalid.

Impact: The Voice Menu, Time-of-Day, Fax Information Service or Announcement service will be unusable.

Action: Delete and recreate the service. Contact your NT support organization if the error persists.

NT: Try to trace the problem by examining other SEERs.

10426 Minor Error

Cause: One of the internal lists of actions, for a menu definition, was found to be invalid.

Impact: The voice menu service will be unusable.

Action: Delete and recreate the voice menu. Contact your NT support organization if the error persists.

NT: Try to trace the problem by examining other SEERs.

10427 Minor Error

Cause: An error code was returned as a prompt was being played.

Impact: The voice prompt may not play.

Action: Contact your NT support organization if the error persists.

NT: A bad code was found in the voice I/O event. Run out-of-service diagnostics on all channels and review SEERs. If the source of the problem cannot be determined, notify the development organization.

10428 Minor Admin

Cause: The version of the Time-of-day service file is not valid.

Impact: The service file, listed in the SEER, cannot be used.

Action: Delete and recreate the service indicated. Contact your NT support organization if the error persists.

NT: This file does not match the current version of time-of-day software running on the system. Notify the development organization

10429 Minor Error

Cause: Either the time-of-day file or one of the files that it refers to could not be read.

Impact: An error message will be played to the user and the service will be disconnected.

Action: Check the time-of-day file listed with the SEER. Make sure that the files that it refers to, which are the business, off hours, and holiday service files, exist. If the files are in order, contact your NT support organization.

NT: The administrator may have defined a time-of-day file without defining the service files which it calls. If the service files have been defined, another type of problem must exist. Look up the lower level return code (usually appearing at the end of the SEER) and examine other SEERs for more information.

10430 Major Error

Cause: An incoming call could not be answered by the Voice Menu service.

Impact: After a time-out, the call will be reverted to another service, which will play an error message to the user.

Action: This is an internal software error. Contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10431 Minor Error

Cause: Unable to send Voice Menu statistics to the OM.

Impact: The data collected during the user's session will be lost and the user's response time will slow down slightly.

Action: If the problem persists, contact your NT support organization.

NT: Look up the lower level return code and examine other SEERs for more information. Notify the development organization

10432 Major Error

Cause: Unable to open system file.

Impact: The call will be transferred to the revert DN.

Action: The return code indicates the problem with the file. If the problem persists, contact your NT support organization.

NT: If the return code is good, there is difficulty in reading the file. Check with ad_util.

10433 Major Error

Cause: Unable to convert the service ID and customer number to a search pattern.

Impact: The service will not be started.

Action: Contact your Northern Telecom support organization.

NT: If the service was defined in the VSDN table, delete this entry and recreate it. If the problem occurred during a menu switch, delete and recreate the menu leading to this problem.

10434 Info System

Cause: The Service Application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

Action: MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

NT: The caller was disconnected from the application. All opened files are closed and all memory is returned to the system pool.

10435 Minor Admin

Cause: A Voice Menu Service was found instead of the expected Fax Information Service.

Impact: The service will terminate and the caller is disconnected.

Action: A Voice Menu Service file id has been set up as a Fax Information Service in either the VSDN table or the Fax Information Service. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition id to match the same type of service should correct this problem. If the problem persists, then the Service Definition file is corrupt and requires a deletion. Delete the service id and recreate it.

10436 Minor Admin

Cause: An Announcement was found instead of the expected Fax Information Service.

Impact: The service will terminate and the caller is disconnected.

Action: An Announcement service file id has been set up as a Fax Information Service in either the VSDN table or the Fax Information Service. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition id to match the same type of service should correct this problem. If the problem persists, then the Service Definition file is corrupt and requires a deletion. Delete the service id and recreate it.

10437 Minor Admin

Cause: A Fax Information Service was found instead of the expected Voice Menu Service.

Impact: The service will terminate and the caller is disconnected.

Action: A Fax Information Service file id has been set up as a Voice Menu Service in either the VSDN table or the Voice Menu Service. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition id to match the same type of service should correct this problem. If the problem persists, then the Service Definition file is corrupt and requires a deletion. Delete the service id and recreate it.

10438 Minor Admin

Cause: A Fax Information Service was found instead of the expected Announcement.

Impact: The service will terminate and the caller is disconnected.

Action: A Fax Information Service file id has been set up as an Announcement in either the VSDN table or the Announcement. Change the requested service type to match the Service Definition file.

NT: Changing either the VSDN entry or the Voice Service Definition id to match the same type of service should correct this problem. If the problem persists, then the Service Definition file is corrupt and requires a deletion. Delete the service id and recreate it.

10439 Minor Error

Cause: There was a problem in starting a fax transmission.

Impact: The fax item may not be sent.

Action: If the problem persist, disable and then re–enable all DSP associated with the node.

NT: Identify the return code. The return code indicates a problem in the base layer software. Correct the fault associated with the base layer software.

10440 Minor Error

Cause: The sponsor fax item could not be added to the list of fax items.

Impact: The fax item may not be sent.

Action: The return code will identify the problem. Common administrative problems are:
10442 – Incorrect id was entered.
10443 – the service id was not a fax item
10444 – the fax image was not scanned in

NT: The return code will identify the problem. If the problem is not administrative, the file may be corrupt and may need to be re–created. Please verify against return code.

10441 Minor Error

Cause: The batch fax callback delivery has detected an error.

Impact: The fax item may not be sent.

Action: The return code will identify the problem. If the problem persist, disable all DSP on the node and re–enable them.

NT: Identify the return code. The return code indicates a problem in the base layer software. Correct the fault associated with the base layer software.

10442 Minor Error

Cause: The service could not find the service id entered.

Impact: The service requested could not be found, the service will terminate.

Action: Verify the correct service id corresponds to a service created earlier. If the service was not created, create it.

NT: Should the SEER persist and the service id is viewable via the Administration screen, verify if it can be found using the dr utility.

10443 Minor Error

Cause: The sponsor service id in the session profile is not a fax item.

Impact: The fax session will terminate.

Action: Add the correct fax id to the sponsor fax field in the session profile.

NT: If the problem persists, use md to remove the service id from the Voice Service cabinet and re–create it via the Voice Service Administration screen.

10444 Minor Error

Cause: The fax item does not have a faxed-in fax image.

Impact: The fax session will terminate.

Action: Scan the fax item using FIM.

NT: If the problem persists, use md to remove the service id from the Voice Service cabinet and re–create it via the Voice Service Administration screen. Scan the fax item using FIM.

10445 Minor Error

Cause: Fax batching (creating and collecting all the faxes selected) detected an error.

Impact: The fax session will terminate.

Action: If the problem persists, disable and then re–enable all DSPs on the same node.

NT: Base level calls to the file and message transferring agent are called when the SEER is printed. The return code from these base level calls will identify the problem. Correct the problem identified by the return code.

10446 Minor Admin

Cause: The session profile was not configured correctly to handle fax selection.

1. The channel does not have full-feature capability in the session profile.
2. The number of fax selections in the session profile is 0.
3. The voice menu was not meant to access Fax Information Services.

Impact: The caller will be transferred to the revert DN.

Action: Case 1. Change the session profile to give the channel full-feature capability.

Case 2 Change the number of fax selection to a number greater than 0.

Case 3. Remove FIS from the voice menu.

NT: Open the session profile (ddOpen) to view the contents. The channel field and fax selection should appear as displayed on the session profile display.

Class 105 Voice Services Administration (VSA)

Introduction

The Voice Services Administration (VSA) creates and maintains several files used to define various services and the system administration:

- Voice service DN table (VSDN)
- Voice service profile
- Thru-dial service definitions
- Time-of-day control service definitions
- Voice menu service definitions
- Announcement service definitions
- Fax item service definitions, if installed

VSA errors indicate that part of the administration setup cannot be created or modified.

If a file cannot be modified or deleted then its service or area of administration is not changed.

A Class 105 SEER generally contains

- Short description messages
- Addition values, usually a DN or ID
- Lower level return codes, usually from DD or CM.

Reports

10501 Minor Error

Cause: VSA failed to find or open the voiceservice cabinet for a data menu.

Impact: An error message will be displayed stating that a system error has occurred and to try again later.

Action: Exit VSA and try again. If error persists, contact your NT support organization.

NT: Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10502 Minor Error

Cause: VSA failed to delete a service file.

Impact: An error message will be displayed stating that the service file has not been deleted.

Action: Try again. If the problem persists, contact your NT support organization.

NT: Look up the return code and examine other SEERs.

10503 Minor Error

Cause: VSA failed to validate a service file ID or DN.

Impact: A message will be displayed stating the error and asking the user to try again later.

Action: Try again. If the problem persists, contact your NT support organization.

NT: The service file ID or DN to be saved is provided in the SEER. Look up the lower level return code which is usually at the end of the SEER. Examine other SEERs for more information.

10504 Minor Admin

Cause: VSA failed to convert a customer name entered by an administrator into a valid customer name, not because there was a non–existent customer, but because of an internal translation problem.

Impact: The administrator may not be able to access information about that customer.

Action: Exit VSA, re–enter, and try again. If the problem persists, contact your NT support organization

NT: Use AD_UTIL and MD_DR to investigate if there is a problem with the customer. Report any findings to your Northern Telecom development organization.

10505 Minor Admin

Cause: VSA is unable to translate the service acronym entered by an administrator into a service type due to an internal translation problem with the software code.

Impact: The information about that particular service may not be accessible in terms of view/modify or delete scenarios.

Action: Exit from VSA. Re-enter and try again. If the problem persists, contact your NT support organization.

NT: Use AD_UTIL and MD_DR to investigate if there is a problem with the customer. Report any findings to your Northern Telecom development organization responsible for VSA.

10506 Minor Admin

Cause: VSA is unable to send VSDN table data or voice service definition data to the printer. Possible causes are that the printer is offline, out of paper, or jammed

Impact: A printout of the data will not be possible until the printer problem is fixed.

Action: Determine the nature of the printer problem. If the problem persists, contact your NT support organization.

NT: If the problem persists, contact your Northern Telecom development organization responsible for VSA.

10507 Info Debug

Cause: The started form or menu required more memory than was available.

Impact: A system error will be displayed and the user will be returned to the previous menu.

Action: Exit the administration and try again. If the situation still exists, contact your NT support organization.

NT: Speak with the administrator and try to determine the depth of nesting in the user's call (for example, exec A calls exec B which called the administration routine which had the error). Examine other SEERs for more information.

10508 Major Admin

Cause: VSA failed to read an organization profile (the system profile or the profile of a particular customer).

Impact: A message will be displayed on the voice administration action menu to the effect that the voice services configuration (and voice menu applications administration)

package could not be loaded. The impact is major because administration of voice services cannot proceed through the screen forms and menus interface.

Action: Try again. If the situation still exists contact your NT support organization.

NT: Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs. Also, several of the voice services files can be manipulated via utilities such as: AD_UTIL for the voice services profile; MD_DR for the VSDN entries and service definition entries; and MD_MA for the channel allocation table. Use these utilities to further examine possible reasons for this error to occur.

10509 Minor Admin

Cause: The MMI server is not responding to requests to get or release VSDN entries or voice service definition entries.

Impact: Access to VSDN entries and/or voice services definition entries will not be controlled. All access will be on the basis of the last admin terminal to make a change to an entry will have that change preserved. That is, if two or more terminals are accessing the same entry at the same time, both will be able to modify the entry and the last change made is the one that will take effect.

Action: It is possible that the MMI_Server is not running. If the problem persists, contact your NT support organization.

NT: Use the PRM_CONTROL to investigate the nature of the problem with the MMI server. Report any unresolved issues to your Northern Telecom development organization.

10510 Info Admin

Cause: This is an information SEER produced when administering VSDNs or voice service definitions at an admin console.

Impact: Provides feedback to administrator and acts as a transaction log.

Action: None

NT: This SEER can be turned on or off in the voice service profile menu in VSA

10511 Minor Error

Cause: Unable to read the hardware database.

Impact: VSA will not know whether there are basic channels or voice ports. Thus the VSDN will display all types of session profile selections for voice menu services, fax

information services, and fax item maintenance services even if some selections are not valid for the system.

Action: Exit from VSA and try entering it again. If the situation still exists, contact your NT support organization.

NT: Check the lower level return code.

10512 Minor Error

Cause: VSA failed to read a time-of-day service file.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

Action: Exit the administration and try again. If the situation still exists, contact your NT support organization.

NT: The ID of the time-of-day file will be provided in the SEER. Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10513 Minor Error

Cause: VSA failed to write a time-of-day service file.

Impact: A system error will be displayed.

Action: Try again to save the service file. If the situation still exists, contact your NT support organization.

NT: The ID of the time-of-day file is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10516 Minor Error

Cause: Unable to read the session profile detail file associated with a VSDN. This could be caused by one of the two following situations:

1. The detail FID of a VSDN with a custom session profile is NIL.
2. A lower level system error has occurred.

Impact: Unable to modify and save the VSDN as long as it is associated with the current service.

Action: Check the SEER for the lower return code which usually occurs at the end of the SEER.

1. If the return code is zero (0), then delete the VSDN and add it again.
2. If the return code is not zero, a low level system error has occurred. Contact your Northern Telecom support organization.

NT: Check the lower level return code which usually occurs at the end of the SEER.

1. If the return code is zero (0), then delete the VSDN and add it again.
2. If the return code is not zero, then the problem resides in a lower level routine. Investigate the lower level software according to the return code.

10517 Minor Error

Cause: Unable to write the session profile detail file when trying to save a VSDN entry.

Impact: The VSDN cannot be saved with the service defined for it.

Action: Try saving the VSDN again. If the situation still exists, contact your NT support organization.

NT: Check the lower level software according to the return code which usually occurs at the end of the SEER.

10522 Minor Error

Cause: VSA failed to write the voice service profile.

Impact: A system error will be displayed.

Action: Try again to save the profile. If the situation still exists, contact your NT support organization.

NT: Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. The voice service profile exists as part of the customer's profile. You can use AD_UTIL to access the voice service record for that customer.

10531 Minor Error

Cause: A record was discovered to be missing, when trying to add voice.

Impact: A system error will be displayed and the user will not be allowed to add voice to the service file in the session.

Action: Exit the session and try to add voice again. If the situation still exists, contact your NT support organization.

NT: The file ID of the service is provided in the SEER. Speak with the administrator to find out when and how the service file was created, and what updates have been

made. Look up the lower level return code which is usually at the end of the SEER. Examine other SEERs for more information. Write down the contents of the file, delete the file, and recreate it again.

10532 Minor Error

Cause: VSA failed to read, create, or set up an announcement service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

Action: Exit the session and try to access the service file again. If the situation still exists, contact your NT support organization.

NT: The file ID of the service is provided in the SEER. Speak with the administrator to determine when and how the service file was created, and what updates have been made.

10533 Minor Error

Cause: VSA failed to write an announcement service file.

Impact: A system error will be displayed.

Action: Try to save the file again. If the situation still exists, contact your NT support organization.

NT: The file ID of the service is provided in the SEER. Look up the return code and examine other SEERs. Look up the lower level return code which usually occur at the end of the SEER. Examine other SEERs for more information.

10534 Minor Error

Cause: VSA failed to read, create, or set up a fax information service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

Action: Exit the session and try to access the service file again. If the situation still exists, contact your NT support organization

NT: The file ID of the service is provided in the SEER. Speak with the administrator to determine when and how the service file was created, and what updates have been made. The MD utility may be used to investigate problems with the service files in the voiceservice cabinet. Look for problems such as FIDs in DR not matching the FIDs of the files in the cabinet. VSP_UTIL utility may be used to correct these kinds of errors.

10535 Minor Error

Cause: VSA failed to read, create, or set up a fax information service file.

Impact: A system error will be displayed. Changes or additions to the file will not be written to disk.

Action: Try to save the file again. If the situation still exists, contact your NT support organization

NT: The file ID of the service is provided in the SEER. Look up the return code and examine other SEERs. Look up the lower level return code, which usually occurs at the end of the SEER. Examine other SEERs for more information.

10541 Minor Error

Cause: VSA failed to read, create, or set up a thru-dialing service file.

Impact: A system error will be displayed and the user will be returned to the calling data menu.

Action: Exit the session and try to access the service file again. If the situation still exists, contact your NT support organization.

NT: The file ID of the service is provided in the SEER. Speak to the administrator to determine when and how the service file was created, and what updates have been made. Check the lower level return code, which usually occurs at the end of the SEER. Examine other SEERs for more information.

10542 Minor Error

Cause: VSA failed to write a thru-dialing service file.

Impact: A system error will be displayed and the user will be allowed to try to save the service file again.

Action: Try to save the file again. If the situation still exists, contact your NT support organization.

NT: The file ID of the service is provided in the SEER. Look up the return code and examine other SEERs. Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10551 Case 1. Minor, Error Case 2. Debug, Info

Cause: The MMI failed to read or create the CAT file.

Impact: Case 1. A system error will be displayed and the user will be returned to the system status and maintenance menu.

Case 2. A system error will be displayed and the user will be returned to the system status and maintenance menu. This SEER is a result of a data menu construction problem. This should only occur during the design and testing phase.

Action: Cases 1, 2. Exit the session and try to access the channel allocation table again. If the situation still exists, contact your NT support organization.

NT: Look up the lower level return code and use the MD_MA utility to check that the data is defined correctly. If there are errors as determined by the MD_MA utility, correct them accordingly.

10555 Minor Error

Cause: The CAT failed to access the hardware database.

Impact: In most cases this has occurred as a result of collecting data to be displayed on the channel allocation table. The hardware database will continue to collect data for other channels or ports even if data for one channel or port cannot be collected. The result will be an incomplete, and possibly corrupted, channel allocation table presented to the administrator.

Action: Exit the session and try to access the channel allocation table again. If the situation still exists, contact your Northern Telecom support organization.

NT: Use the MD_MA utility to check that the data is defined correctly. If there are errors as determined by the MD_MA, correct them.

10558 Minor Error

Cause: The Channel Allocation Table reflects the state of T1 Channels and DSP Ports as defined in the Hardware Database.

When modifying the Channel Allocation Table it is possible, and allowed, to reconfigure T1 channels such that the T1 Channel totals get out of sync with (i.e. do not match) the DSP Port totals as defined in the Hardware Database system record. In particular, the totals of concern are those for Voice and Multimedia T1 Channels and DSP Ports.

This is allowed so that the administrator can exit the Channel Allocation Table and return to the System Status and Maintenance action menu in order to proceed with reconfiguring the Voice and Multimedia DSP ports. As a result, the administrator will be warned on the screen of this 'out of sync' condition. As well, a SEER will be printed to mark the time when this condition occurred. Once the condition is

corrected, by re-modifying the Channel Allocation Table, a SEER will be printed to mark the time when this condition was corrected.

The following SEER Text could be given:

1. Hwdb is out of sync:
   #Voice DSP Ports defined = <W>
   #Voice T1 Channels allocated = <X>
   #Multi DSP Ports defined = <Y>
   #Multi T1 Channels allocated = <Z>

   where:

   W = the number of DSP voice ports as defined in the hardware database

   X = the number of T1 Channels designated to be of type Voice

   Y = the number of DSP multimedia ports as defined in the database

   Z = the number of T1 Channels designated to be of type Multimedia

2. Hwdb is back in sync:
   #Voice DSP Ports defined = #Voice T1 Channels alloc: <X>
   #Multi DSP Ports defined = #Multi T1 Channels allocated: <Y>

   where:

   X = the number of T1 Channels designated to be of type Voice

   Y = the number of T1 Channels designated to be of type Multimedia

Impact: If the T1 Channels remain ‘out of sync’ with the DSP Ports then it is possible that there may be fewer DSP Ports of the same Type as T1 Channels. For example, if there were 10 Multimedia T1 Channels but only 8 Multimedia DSP Ports, the ninth concurrent call for a Multimedia service will be rejected since there are not enough Multimedia DSP ports available.

Action: Return to the Channel Allocation Table to re-synchronize the T1 Channels with the DSP ports. This requires that the number of Voice T1 Channels equals the number of Voice DSP Ports and the number of Multimedia T1 Channels equals the number of Multimedia DSP Ports.

NT: None.

10559 Minor Error

Cause: When modifying the Channel Allocation Table it is possible, and allowed, to configure the channels such that a given primary DN (or ACD DN on a Meridian 1

or SL-1 switch) might end up pointing to channels with different types or capabilities.

This is allowed so that the administrator can exit one Channel Allocation Table form for one node (or link on an MSM), and move on to the CAT form for a different node (or link on an MSM), in order to re-align channels across nodes/links.

Because of this flexibility, the administrator could also choose to return to the System Status and Maintenance action menu, leaving the Primary (or ACD) DNs pointing to a mix of channels. As a result, the administrator will be informed of this condition by a warning message on the MMI. As well, a SEER will be printed with the same information as a matter of record.

The following SEER text could be given for AML Link systems (Meridian 1/SL-1)

1. "Nodes <N>–#<nn> and <M>–#<mm> (ACDDN <nnnnnnnn>) have different channel types."

   or

2. "Nodes <N>–#<nn> and <M>–#<mm> (ACDDN <nnnnnnnn>) have different channel capabilities."

The following SEER text could be given for an SMDI Link, non-MSM system:

3. "Nodes <N>–#<nn> and <M>–#<mm> (PrimaryDN <nnnnnnnn>) have different channel types."

   or

4. "Nodes <N>–#<nn> and <M>–#<mm> (PrimaryDN <nnnnnnnn>) have different channel capabilities."

The following SEER text could be given for an SMDI Link, MSM system:

5. "Links <A>–#<nn> and <B>–#<mm> (PrimaryDN<nnnnnnnn>) have different channel types."

   or

6. "Links <A>–#<nn> and <B>–#<mm> (PrimaryDN<nnnnnnn>) have different channel capabilities."

where:

N = the number of the first node in the comparison.
M = the number of the second node in the comparison. This could be the same as <N>.
nn = the number of the channel on the first node or link in the comparison.
mm = the number of the channel on the second node or link in the comparison. This is different than <nn>.

A = the Link ID, represented as a letter from A to H, of the first T1 link.
B = the Link ID, represented as a letter from A to H, of the second T1 link. This could be the same as <A>.
nnnnnnnn = a DN consisting of 1 to 8 digits.

Impact: If the DNs representing the queues consist of a mixture of different types of channels, or a mixture of channels with different capabilities, then it is possible that calls terminating on such a queue will be rejected since the required match of a channel to a service will fail.

Action: Go to the Channel Allocation Table to correct the mismatches.

NT: None

10561 Minor Error

Cause: VSA failed to validate DN. An error occurred reading the VSDN file.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

Action: Exit the administration software and try again later. If the situation still exists, contact your NT support organization.

NT: The DN is provided in the SEER. Look up the lower level return cod which usually occurs at the end of the SEER. Examine other SEERs for more information.

10562 Minor Error

Cause: VSA failed to read or create a VSDN entry.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

Action: Exit the administration software and try again later. If the situation still exists, contact your NT support organization.

NT: An error occurred while trying to read or create the VSDN file. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. VSDN table entries are stored in the corporate directory. You can use MD_DR to investigate any problems with respect to VSDN table entries.

10563 Minor Error

Cause: VSA failed to write a VSDN entry.

Impact: A system error will be displayed.

Action: Try to save the file again. If a problem still exists, contact your NT support organization.

NT: An error occurred while trying write the VSDN file. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. VSDN table entries are stored in the corporate directory. You can use MD_DR to investigate any problems with respect to VSDN table entries.

10564 Minor Error

Cause: VSA failed to delete a DN from a VSDN entry.

Impact: A system error will be displayed and the user will be returned to the previous data menu.

Action: Try to delete the DN again. If a problem still exists, contact your NT support organization.

NT: An error occurred while trying write the VSDN file. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. VSDN table entries are stored in the corporate directory. You can use MD_DR to investigate any problems with respect to VSDN table entries.

10565 Minor Error

Cause: VSA failed to set up a VSDN Data menu.

Impact: A system error will be displayed and the user will be returned to the voice system configuration menu.

Action: Try to access the menu again. If a problem still exists, contact your NT support organization.

NT: An error occurred while trying to find and open particular records in the VSDN table. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. VSDN table entries are stored in the corporate directory. You can use MD_DR to investigate any problems with respect to VSDN table entries.

10572 Minor Error

Cause: VSA failed to delete a voice record from a service definition file, typically from a voice menu file.

Impact: A system error will be displayed.

Action: Try to access the voice menu again. If a problem still exists, contact your NT support organization.

NT: The ID of the voice menu and the record ID are provided in the SEER. Look up the lower level return code which is usually at the end of the SEER. Examine other SEERs for more information.

10573 Minor Error

Cause: VSA failed to read, create, or set up a voice menu service file.

Impact: A system error will be displayed and the user returned to the previous data menu.

Action: Try to access the voice menu again. If a problem still exists, contact your NT support organization.

NT: The ID of the voice menu is provided in the SEER. Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information. The corporate directory contains entries for service definition types. You can use MD_DR to investigate possible problems with respect to service definition entries. MD may be used to investigate problems with service definitions in the voiceservice cabinet.

10574 Minor Error

Cause: VSA failed to write a voice menu service file.

Impact: A system error will be displayed.

Action: Try to save the voice menu again. If a problem still exists, contact your NT support organization.

NT: The ID of the voice menu is provided in the SEER. Look up the lower level return code which is usually at the end of the SEER. Examine other SEERs for more information.

10581 Minor Error

Cause: VSA failed to read, create, or set up a voice form service file.

Impact: A system error will be displayed and the user will get returned to the data menu.

Action: Exit the voice form definitions service and try to create or access the voice form again. If a problem still exists, contact your Northern Telecom support organization.

NT: The ID of the voice form is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10582 Minor Error

Cause: VSA failed to lock the form information file associated with a voice form service file, or was unable to delete all existing caller responses.

Impact: A system error will be displayed and the user will be returned to the data menu or command line.

Action: Exit the voice form definitions service and then try to perform the operation again. If a problem still exists, contact your Northern Telecom support organization.

NT: An error occurred either trying to lock a form information file with the forms manager multiuser, or trying to delete all of the voice form's existing caller responses on all user volumes. The ID of the voice form is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10583 Minor Error

Cause: VSA was unable to access a voice record in a voice form service file while setting up for a voice operation.

Impact: A system error will be displayed.

Action: Exit the voice form definitions service and then try to perform the operation again. If a problem still exists, contact your Northern Telecom support organization.

NT: An error occurred trying to position to a voice record within a voice form service file. The ID of the voice form is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10584 Minor Error

Cause: VSA failed to write information to a voice form service file.

Impact: A system error will be displayed.

Action: Try to save the changes again. If a problem still exists, contact your Northern Telecom support organization.

NT: An error occurred either trying to write the information for one field into the voice form service file, or trying to save the whole file. An error could result from: writing the information to disk, updating the corporate directory, or updating the form information file. The ID of the voice form is provided in the SEER. Look up the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10585 Minor Error

Cause: VSA failed to update the status information for a voice form service file in the corporate directory.

Impact: A system error will be displayed and the status of the voice form may be left in an inconsistent state. This means that callers or transcribers may experience errors when attempting to access the voice form.

Action: Try to perform the operation again. To correct the status of a voice form, re-access it from the voice form definitions data menu and press Save. If a problem still exists, contact your Northern Telecom support organization.

NT: An error occurred trying to update the voice service entry in the corporate directory for the voice form. The ID of the voice form is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10586 Minor Error

Cause: VSA was unable to read the information about a field in a voice form service file while constructing a menu for displaying the list of fields.

Impact: A partial list of fields will be displayed to the user.

Action: Exit the voice form definitions service and then try to perform the operation again. If a problem still exists, contact your Northern Telecom support organization.

NT: An error occurred trying to read a field from the voice form service file. The ID of the voice form is provided in the SEER. Check the lower level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10587 Minor Error

Cause: VSA failed to read, create, or setup for a particular field in a voice form service file.

Impact: A system error will be displayed and the user will be returned to the data menu.

Action: Exit the voice form definitions service and then try to create or access the field again. If a problem still exists, contact your Northern Telecom support organization.

NT: The ID of the voice form is provided in the SEER. Check the lower-level return code which usually occurs at the end of the SEER. Examine other SEERs for more information.

10588 Minor Error

Cause: VSA failed to perform a requested operation on a particular field in a voice form service file. There has been a file or disk access/corruption problem.

Impact: The operation could not be performed. A system error will be displayed and the user will be returned to the data menu.

Action: Exit the voice form definitions service and then try to perform the operation again. If a problem still exists, contact your Northern Telecom support organization.

NT: Data associated with a field in a voice form could not be accessed or modified. The ID of the voice form is given in the text of the SEER. An error code specifying the exact cause of the problem is given at the end of the SEER. Look up this error code in the SEER manual and correct the problem. Also look for other SEERs which may relate to this problem. If the problem continues to happen to the same voice form, there may be a file corruption problem. Try to delete and recreate the field in the voice form. As a last resort, delete and recreate the entire voice form definition.

10591 Minor Error

Cause: The voiceservice cabinet and files have been moved to the /1/fieldsupport cabinet but a destination voiceservice cabinet already exists and will not be replaced.

Impact: The move will fail unless the condition is corrected. To succeed in moving voice service files, the destination voiceservice cabinet should be empty and nonexistent.

Action: Refer to instructions in the System Installation and Modification Guide.

NT: If you are certain that the destination voiceservice cabinet is empty or no longer needed, remove it using MD.

10592 Info Admin

Cause: Warning that cabinet still contains some files; cabinet not deleted.

Impact: Cabinet will not be deleted until it is empty.

Action: Verify that the existing files are not significant and delete the associated service definitions using the VSA in the MMI. Then run the process again.

NT: Use vsp_util to synchronize the voiceservice cabinet and the DR (commands are PATCHDR and SYNCCABINET). If the problem persists, MD may be used to investigate the cabinet.

10593 Minor Error

One of the following phrases will appear in the SEER followed by one or more voice service file names

- Bad service definitions:
- Dangling DR entries for:
- Purging DR entries:
- Moving service definitions:

Cause: A problem occurred with a service definition file listed in this SEER when moving cabinets. See the field support garbage collection cabinet.

Impact:

Case 1	Bad Service Definitions: The file of concern has been moved, if possible, to the fieldsupport cabinet for study.
Case 2:	Dangling DR entries for: A DR entry exists for a file which does not exist.
Case 3:	Purging DR entries: A DR entry has been removed for a file transferred to the fieldsupport cabinet.
Case 4:	Moving Service Definitions: The file of concern has been moved to the fieldsupport cabinet for study.

Action: If the problem persists contact your Northern Telecom support organization.

NT: The file can be moved back to the voiceservice cabinet, if desired. PATCHDR from vsp_util can be run to re-associate any existing DR entry with the file. If this does not work as desired, then the service definition must be re-entered using the VSA in the MMI.

10595 Minor Error

Cause: Source and destination cabinets are the same. (This should only occur as a result of node expansion.)

Impact: Move cabinet (and move service definition files) will fail if an attempt is made to move the voiceservice cabinet to itself.

Action: Refer to hardware modification guidelines for instruction.

NT: Refer to hardware modification guidelines for instruction.

10596 Info Admin

Cause: Cannot retrieve a proper garbage collection cabinet from sc_types or one cannot be opened.

Impact: Any VSP_UTIL function which requires a field support cabinet will not succeed unless a /1/fieldsupport cabinet exists.

Action: Create a /1/fieldsupport cabinet or call your Northern Telecom support organization and arrange to have a representative do so.

NT: Create a /1/fieldsupport cabinet and rerun the process.

10597 Minor Error

Cause: Cannot find the voice service file name in the voiceservice cabinet.

Impact: Case 1. If the service is still accessible, then operations to this file can continue as normal. However, if the VSP_UTIL commands are run to clean up the voiceservice cabinet, this voice service will become inaccessible because its file name is incorrect and it will be moved to the fieldsupport cabinet.

Case 2. If the service is not accessible, then it cannot be updated or used.

Action: Case 1. If the service is still accessible, view/modify this service and save it so that the filename in the voiceservice cabinet will be updated with the name that is in the VSDN table in the corporate directory.

Case 2. If the service is not accessible, contact your Northern Telecom support organization.

NT: The file name that cannot be found is provided in the SEER. The first five characters of the name represent the customer number; the last eight characters represent the service ID. Asterisks or stars are place holders.

Case 1. If the file is accessible, then the file exists in the voiceservice cabinet with a name that is different from what is stored in the corporate directory. Investigate to determine why either the file name in the cabinet or the corporate directory has changed. To make the file name in the cabinet the same as the name in the corporate directory, simply view/modify the service from the VSA and resave it.

Case 2. If the file cannot be accessed, then examine other SEERs and their return

codes, which usually occur at the end of the SEER, for more information. The MD_DR and MD utilities can be used to investigate the problem. The file may not be in the voiceservice cabinet, or the file's FID and the FID stored in the DR do not match. In either case, VSP_UTIL may be used to clean up or correct these two problems.

Class 106 Thru-dialing (TD)

Introduction

The Thru-dialing Subsystem:

- reverts the user to the revert DN on initial input time-out
- solicits the extension number or name of person to call
- places the call connection
- informs the user of a failed call connection attempt
- disconnects the service when call connection is made

Failures in Thru-dialing can cause:

- loss of use of the service and transfer of the user to the revert DN defined for the service (if it is known) or to an attendant
- the user-specified action to fail, although the user can try again

A Class 106 SEER generally contains:

- return code from lower level software
- additional information such as the DN of the user's phone, the language or the type of operation

Reports

10601 Critical Error

Impact: The Thru-dialing service will not be started. Users who access Thru-dial directly will get transferred to the Custom Revert Number DN or the system attendant, if known. If these numbers are not known, the service will be disconnected. If the Thru-dialing service is accessed from a voice menu, the user will be returned to that

voice menu. In either case, an error prompt will be played, if possible, before the user is transferred.

Action: Check that the system has been configured properly, for example that the system and voice service prompt files are installed, and check that the Thru-dialing service is set up properly. The access DN should be configured and the service definition file should be defined. Usually the error text and the return code identify the unavailable resource.

NT: The problem text will identify the initialization problem. If possible, check for the missing item using the software package provided with the system.

10603 Minor Error

Cause: An unexpected return code was received from the Voice Handler in response to a voice operation.

Impact: The voice operation may not be completed, for example, a prompt may not be played. The user should be able to continue the session.

Action: Look up the return code for specific information. If unclear, contact your Northern Telecom support organization.

NT: The Voice Handler returned an unexpected return code. Check for any voice handler (class 20, 27) return code problem leading to this error. This may give an indication why the handler is returning an unknown value.

10604 Minor Error

Cause: The Voice Processor did not process the voice operation request in time because the system is under load or there is a problem with the voice processor hardware. The return code isolates the cause.

Impact: The requested voice operation will not be completed (for example, a prompt will not be played).

Action: Check each Voice Processor status by running out-of-service diagnostics on the voice cards.

NT: Dial into a Voice Prompt Maintenance (VPM) service. If the problem is in the voice processor, the same situation should occur. Look for any voice processor problem that may identify this error. If this problem is isolated only to the thru dial service, try deleting and recreating it.

10605 Minor Error

Cause: The ISDN/AP link may be down.

Impact: The connection to the specified extension number will not be made. The system will try to connect the user to the revert DN instead. If the ISDN/AP link is still down, the service would appear to be not responding.

Action: Check the system status screen in the MMI to confirm that the ISDN/AP link is down. This problem will clear when the link automatically comes back up.

NT: The return code identifies the problem. Look at the corresponding return code for further action.

10606 Minor Error

Cause: The revert DN has an illegal character.

Impact: The custom revert operation will not be completed. The user will be connected to a system attendant if possible. If there is no attendant to which to revert, the session continues. If the link is still down, the service may appear to not be responding.

Action: Check the revert DN of the Thru–dial definition.

NT: Delete and reenter the system DN and system revert DN. If this does not correct the problem, use ad_util to examine the customer precode and length.

10607 Minor Error

Cause: Help command was unexpectedly received.

Impact: The help command is ignored because the user is in a state where no help is defined or needed. Temporary data corruption may have occurred.

Action: Check the return code to see if the user is in an invalid state. The problem should clear itself, so no further action is required.

NT: If the problem does not correct itself, identify the channel causing the problem, and restart the Voice Service Shell (VSS) for that channel.

10608 Minor Error

Cause: The system has entered an unknown time-out state.

Impact: The time-out is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

Action: None. The problem should clear itself.

NT: If the problem does not correct itself, identify the channel causing the problem, and restart the Voice Service Shell (VSS) for that channel.

10609 Minor Error

Cause: The cleaning up of computer resources failed. The operation may be closing a file or disconnecting the service.

Impact: The operation is not completed. If the operation was to close a file, that file is not closed properly. If the operation was to disconnect, the session will remain in service, but the service will eventually time out and disconnect.

Action: Look up the return code for specific information. If the error persists, contact your NT support organization.

NT: A lower level component has failed. Review the lower level return code and any related SEERs (within the previous few minutes). If the source of the error cannot be determined, notify the development organization.

10610 Minor Error

Cause: The requested operation failed.

Impact: The operation will not be completed. If the operation was to switch the user back to the voice menu, the user will be transferred to the revert DN instead. If the operation was to retrieve a digit, the user will have to re-enter the digit or the data item which contains the digit.

Action: Check the return code to see if the voice service shell is functioning properly. If the error persists, contact your NT support organization to restart the Voice Service Shells.

NT: Identify the channel causing the problem. Run the diagnostic for that channel and reload the Voice Service Shell (VSS).

10611 Info System

Cause: The thru dial application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

Action: MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

NT: The caller was disconnected from the application. All opened files are closed and all memory is returned to the system pool.

Class 107 Voice Prompt Maintenance (VPM), Remote Activation (RA)

Introduction

The Voice Prompt Maintenance (VPM) and Remote Activation (RA) utility are part of the Voice Services that:

- allows users to update voice prompts for Voice Menus, Announcements and Thru-Dialers
- provides a telephony interface to update these prompts

Remote Activation:

- allows users to change Voice Services (Voice Menus, Announcements, Thru-Dial, Time-of-Day, Voice Forms, Fax Information Services) attached to active DNs.

Failures in the VPM can cause inability to update voice prompts for Voice Menus, Announcements, and Thru-Dial except by a text interface.

A Class 107 SEER generally contains:

- string indicating the routine in which it was generated
- return code from lower level software
- Voice menu, Announcement, Thru-dial, Time-of-day, Fax item or Voice form ID.

Reports

10701 Minor Error

Cause: Problem with playback of a user-recorded voice prompt in a voice menu, Announcement, or Thru–Dial. The Service ID is provided in the SEER.

Impact: User will hear an error prompt. If the user prompt is corrupt, the problem may recur. If not, normal operation will proceed upon user entry.

Action: If the problem occurs repeatedly on a single voice service, the voice record may be corrupt, so delete the prompt or menu and recreate it using Voice Menu Applications administration.

NT: Identify the voice play recording. Play the voice recording under the intended service. If the problem is still there, delete and re–record the voice. If this solution does not correct the problem, try reloading the Voice Service Shell (VSS).

10702 Minor Error

Cause: Problem with recording a voice prompt in a voice menu, Announcement, or Thru–Dial. The voice service ID is provided in the SEER.

Impact: User will hear an error prompt. If the user prompt is corrupt, the problem may recur. If not, normal operation will proceed upon user entry.

Action: If this problem occurs repeatedly on a single voice service, the voice record may be corrupt, so delete and recreate the prompt or menu using the text administration interface.

NT: Try recording the voice using the voice softkey. Should the error persist, examine the problem Class 20 (VH) to determine what caused the error.

10703 Minor Error

Cause: Problem with disconnecting the session by the Voice Prompt Maintenance/ Remote Activation Utility after a problem. This SEER is not caused by the user hanging up.

Impact: User will still have a voice connection.

Action: Hanging up will restore things to normal. If this error persists, examine other SEERs to locate the source of the problem leading up to the disconnect. If unclear, contact your Northern Telecom support organization.

NT: Set up another VPM definition in the VSDN table. If the problem persists, contact the development organization.

10704 Critical Error

Cause: Problem with initializing the session due to inability to locate or open system prompt files. May also be caused by problems initializing voice operations (vxinit) or problems obtaining organization configuration information from the VSS.

Impact: The session will terminate. If the error is not temporary, more attempts to access VPM will fail.

Action: If the problem is caused by specification of an unsupported language in the Voice Services, correct the menu to specify only supported languages.

NT: Check that supported languages have system prompts set up. Examine other SEERs for further information.

10705 Major Error

Cause: Internal problem occurred when the software encountered an unexpected situation. This may be a software error.

Impact: User will hear an error prompt in some cases. Normal operation will proceed upon next user command. Problem may recur again if the same situation is encountered.

Action: None. The problem should clear itself. If the problem persists, contact your Northern Telecomm support organization.

NT: If the problem persists, try reloading the Voice Service Shell (VSS).

10706 Major Admin

Cause: An invalid password was entered three times in succession for a Voice Menu, Announcements or Thru–Dial.

Impact: The user is disconnected after the third invalid password entry. If several of these SEERs appear, this could mean that an unauthorized person is trying to breach security and use the system.

This SEER is the only way the system reports repeated invalid entry into Voice Menu, Announcements, or Thru–Dial.

Action: The SEER provides a 10-byte string containing the Service ID, a byte giving the calling device, and a string containing the extension from which VPM was accessed. The Service ID and extension are in ASCII, with the first byte indicating the length of the strings, for example, 043**2**3**2**373**0** indicates extension “2270”. If the calling device is a trunk or attendant console then the extension number is invalid. A calling device of 0 (internal phones) will yield a valid extension number.

NT: If a valid password is being entered and this problem still persists, try deleting and reentering the password.

10707 Minor Error

Cause: A file operation (open or close) failed. This could be a temporary situation caused by disk errors or by a corrupt file.

Impact: The user will hear a system error prompt in some cases, normal operation will proceed upon next user command. The problem may recur if the same situation is encountered.

Action: Look up the return code. If the problem is caused by a full volume, obtain additional storage. If unclear, contact your Northern Telecom support organization.

NT: Try accessing the service ID using the VSA or by placing a call to the actual service itself. If this fails, try recreating the service. If you are able to access the service using VSA or by placing a call to the service, attempt to access this file using the "dd" tools package.

10708 Minor Error

Cause: A voice operation (open or close) failed. This could be a temporary situation caused by voice processor hardware problems. The return code isolates the cause.

Impact: User will hear a system error prompt in some cases, normal operation will proceed upon next user command. If the problem was caused by a fatal voice processor problem, the session is disconnected.

Action: If the situation occurs repeatedly, contact your NT support organization.

NT: Note the Menu ID and look up the lower level return code for more specific information.

10709 Info Debug

Cause: The service file is currently being opened by another application.

Impact: The service cannot be updated unless the application holding the file closes it.

Action: Close the application holding the file or select another service to be updated.

NT: None.

10710 Minor Error

Cause: The service ID is being mapped into a service information address. The service ID may corrupt.

Impact: The session will terminate. User will hear an error prompt.

Action: Hanging up will restore things to normal.

NT: Identify the channel causing the problem. Run the diagnostic for the channel and reload the Voice Service Shell (VSS).

10711 Info Admin

Cause: The voice recording of the application displayed in the SEER was changed using Voice Prompt Maintenance. If the service was a Remote Activation change, the VSDN is changed to the new service entered.

Impact: On the next call into this application, the new voice recording will be played (for the Voice Prompt Maintenance change). For a Remote Activation change, the new service will start on the next call.

Action: To enable/disable this SEER from printing, consult the voice service application (voice service profile) chapter.

NT: No action is required, this is a normal operation for new voice recording using voice prompt maintenance and a change of service using Remote Activation (SEER printing for prompt and activation changes are configurable in the voice service profile).

10713 Info Admin

Cause: The maximum number of password change attempts was exceeded.

Impact: The update password is not changed.

Action: The caller should attempt another password change.

NT: This SEER is printed every third unsuccessful attempt by the same caller. It can be used to determine who changed the UPDATE password at anytime.

10714 Info Admin

Cause: Unable to change UPDATE password in voice service file.

Impact: UPDATE password cannot be changed using Voice Prompt Maintenance.

Action: Contact your Northern Telecom support organization. If requested, the password can still be changed using the Administration terminal.

NT: Compare the SEER return code with the list of SEER codes for the “dd” server. If found, take action as if this was a “dd” error. If not found, or the action just described fails, notify Northern Telecom’s development organization (NT-TOR) of the error.

10715 Info System

Cause: The Service Application was asked to terminate because the online update is about to begin.

Impact: The caller is disconnected from the current call.

Action: MSM only: no action is required, the caller is terminated from the call and the service will close all opened files.

NT: The caller was disconnected from the application. All opened files are closed and all memory is returned to the system pool.

10716 Info Admin

Cause: The voice service file UPDATE password has been changed by VPM.

Impact: The UPDATE password is changed.

Action: The password change can be confirmed either by dialing the service again or by viewing the results from the service definition menu.

NT: If the password was not changed, confirm using md.

10799 Critical Error

Cause: The software encountered an unexpected problem. This problem may be caused by “binding startup” procedures.

Impact: The user may hear an error prompt. Normal operation could proceed upon user entry. If not, the session will terminate. If this is not a temporary condition, subsequent attempts to access VPM will fail.

Action: If the error persists, contact your NT support organization.

NT: Look for related SEERs for further information.

Class 108 Network Administration (NA)

Introduction

Network Administration (NA) lets the system administrator view and modify the networking configuration data for the local and remote sites. In addition, NA provides a site verification test and a facility to reset the networking software.

A Class 108 SEER generally contains a return code from another component such as the network database or directory server.

Reports

10801 Minor Error

Cause: NA failed to gain access to the network database.

Impact: Administrator cannot view/modify networking configuration.

The text printed after the class and report number identifies the function called and the RC indicates the type of problem.

Action: Look up the low level return code for specific information and contact your Northern Telecom support organization with the function and return code.

NT: It is probably a software problem. Notify the Northern Telecom development organization.

10802 Minor Error

Cause: NA failed to gain access to the Network Message Transfer Agent (NMTA).

Impact: Administrator cannot view/modify networking configuration.

Action: Ensure that the system has a valid time and the system has finished rebooting. If the problem persists, contact your NT support organization.

NT: Use the PRM_PKG program to ensure that the NMTA is running. If this problem occurs before the system completes booting, then NMTA has not yet been started by PRM.

10803 Minor Error

Cause: NA failed to get dynamic information from the terminal (cobra VT).

Impact: Administrator cannot enter inputs from the terminal.

Action: Look up the low level return code for specific information and contact your Northern Telecom support organization.

NT: It is probably a software problem. Contact the Northern Telecom development organization.

10804 Minor Error

Cause: NA failed to gain access to the cabinet access method (CM).

Impact: Administrator cannot view/modify networking configuration.

Action: Look up the low level return code for specific information and contact your Northern Telecom support organization.

NT: It is probably a software problem. Contact the Northern Telecom development organization.

10805 Minor Error

Cause: NA failed to gain access to the disk data interface (DD).

Impact: Administrator cannot view/modify networking configuration.

Action: Look up the low level return code for specific information and contact your Northern Telecom support organization.

NT: It is likely a software problem. Contact the Nothern Telecom development organization.

10806 Minor Error

Cause: NA failed to gain access to the message transfer agent (MTA).

Impact: Administrator cannot view/modify networking configuration.

Action: If the problem persists, call contact your NT support organization.

NT: Use list program (debugger command LP) to ensure that the MTA is running.

10807 Minor Error

Cause: NA failed to gain access to the directory server (DR).

Impact: Administrator cannot view/modify networking configuration.

Action: If the problem persists, contact your NT support organization.

NT: Use list program (debugger command LP) to ensure that the DR is running.

10808 Minor Error

Cause: An error occurred while using the command line interpreter (CLI).

Impact: Administrator cannot enter inputs from the terminal.

Action: If the problem persists, contact your NT support organization.

NT: Investigate memory or segment availability to determine cause. Kill and restart the MMI if necessary.

10809 Minor Error

Cause: An error occurred while using the remote voice services (RVS).

Impact: Administrator cannot view/modify networking configuration.

Action: Look up the low level return code for specific information. If the problem persists, contact your NT support organization.

NT: It is probably a software problem. Notify the Northern Telecom development organization.

10810 Minor Error

Cause: NA failed to gain access to the hardware database (HD).

Impact: Administrator cannot view/modify networking configuration.

Action: Look up the low level return code for specific information. If the problem persists, contact your NT support organization.

NT: It is probably a software problem. Contact the Northern Telecom development organization.

10811 Minor Error

Cause: NA failed to gain access to the administration base (AD).

Impact: Administrator cannot view/modify networking configuration.

Action: Look up the low level return code for specific information. If the problem persists, contact your NT support organization.

NT: It is probably a software problem. Contact the Northern Telecom development organization.

Class 109 Remote Voice Services (RVS)

Introduction

Remote Voice Services (RVS), also known as screen-based voice session:

- places calls from a voice channel to a DN specified by the user
- enables users to perform, using softkeys, voice operations on voice contained in a form, for example, voice menus or thru-dial voice files
- supports these voice operations: play, record, and delete
- monitors the status of the call connection, for example, user hangs up

RVS errors can prevent calls from being connected or disconnect calls. Without a call connection, the administrator cannot record or play voice associated with voice menus, announcements or thru-dial voice services.

A Class 109 SEER generally contains a lower-level return code.

Reports

10903 Minor Error

Cause: An error occurred while processing a call.

1. If the text reads, “The current channel configuration will not allow an outgoing call to <DN #>,” then one of two causes have lead to this:
   a. All idle channels are dedicated to other services.
   b. A configuration error exists for the channels.
2. If the text reads, “Fails to place outgoing call to <Entered DN>,” then an error occurred while processing a call.

Impact: The call will not be made.

Action: Case 1.
a. Dedicate at least one channel for Voice SoftKey (VS) in the CAT table.
b. Dedicate at least one voice channel on an NVP32 voice card as Voice SoftKey (VS) in the CAT table.

Case 2. Channels are allocated on a hybrid exact-fit / best-fit basis. The criteria consists of
- service/class dedication
- channel type (voice, multimedia)
- channel capabilities (basic, full)
- channel availability

Ensure at least one voice channel has been defined on the system.

NT: Case 1–2. If problem persists then do the following:
- Ensure the dedicated channel is idle in the system status screen, and try again.
- Contact Northern Telecom's development organization at NT–TOR.

10904 Minor Error

Cause: A tasking error occurred in RVS.

Impact: The call will be disconnected.

Action: Try again later.

NT: Note the task result, and contact Northern Telecom's development organization (NT-TOR).

10905 Minor Error

Cause: RVS failed to open or create a voice record in a file, due to a low-level disk problem.

Impact: The call will be disconnected.

Action: Check surrounding SEERs to identify and fix possible problem. Otherwise, contact your Northern Telecom support organization.

NT: Check the sanity of the volumes and disks. To check sanity of volumes, run an audit on the volume containing the files.

10906 Minor Error

Cause: Errors in recording or playing

Impact: The call will be disconnected.

Action: Try again later. If condition persists, contact your Northern Telecom support organization.

10907 Minor Error

Cause: Errors in recording or playing

Impact: The call will be disconnected.

Action: Try again later. If condition persists, contact your Northern Telecom support organization.

NT: Check the sanity of the volumes and disks. To check sanity of volumes, run an audit on the volume containing the files.

10908 Minor Error

Cause: Errors in disconnecting.

Impact: Call will be disconnected, and in some cases, the port will reload.

Action: None. The call will be disconnected later.

NT: Note the return code. All cases except the case of "Unknown task completed" are lower level return codes. In the "Unknown task completed" case, the additional integer is the internal RVS state value. Contact Northern Telecom's development organization (NT-TOR).

10909 Minor Error

Cause: Time-out in a voice operation, or VPIO task crashes occurred during a voice session.

Impact: The call will be disconnected.

Action: Try again later.

10910 Minor Error

Cause: Time-out in a voice operation, or VPIO task crashes occurred during a voice session.

Impact: The call will be disconnected.

Action: Try again later.

NT: Look at the trace back from the task crash. The extra integer in SEER report 10909 is the IO event number (voice handler return code value, or disk data / volume server return code value). The extra integer in SEER report 10910 is the error type (run-time errors). Contact Northern Telecom's development organization at NT-TOR.

10911 Minor Error

Cause: Error occurred when RVS tried to find a voice size or tried to delete some voice, possibly due to a corrupted file.

Impact: The call will be disconnected.

Action: Cancel the changes made to the form and try again later. If the problem persists, delete the definition object (service definition, user definition, and so on) and recreate it.

NT: Note the result code at the end of the SEER, and contact Northern Telecom's support organization.

Class 110 Outcalling Agent (OCA)

Introduction

The Outcalling Agent (OCA) provides remote notification and delivery to non-user services. Failures in the OCA will only affect one call. For most serious problems, a duplicate call may occur.

A Class 110 SEER generally contains message text and a lower level return code.

Reports

11001 Error Admin

Cause: The OCA has encountered unavailable resources.

Impact: The OCA will not place the call, or a prompt will not be played, or a call will be placed using default RN values.

Action: The error text and return code will identify the unavailable resource. If the SEER text refers to the RN administration utility, use the TOOLS level utility to configure the values. Otherwise contact your Northern Telecom support organization.

NT: Examine the return code.

11004 Minor Admin

Cause: There is a problem with the voice processor hardware.

Impact: The requested voice operation will not be completed.

Action: The return code isolates the cause. Check the voice processor status by running out-of-service diagnostics on each voice card.

NT: Check for related SEERs to help determine the hardware problem. There may be a Class 20 voice handler (VH) SEER.

11005 Minor Admin

Cause: The help command was unexpectedly received.

Impact: The help command is ignored because the user is in a state where no help is defined or needed. Temporary data corruption may have occurred.

Action: Check the return code to see if the user is in an invalid state. The problem should clear itself, so no further action is required.

NT: If the problem persists, check for the source of corruption.

11006 Minor Admin

Cause: The system has entered an unknown timeout state.

Impact: The timeout is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

Action: None. The problem should clear itself.

NT: If the problem persists, check for the source of corruption.

11007 Minor Error

Cause: The delivery to nonuser message cannot be read because it is a message with a version number greater than the version allowed for this release of software.

Impact: The call will be disconnected.

Action: A software release compatibility problem may have occurred. Contact your NT support organization

NT: Determine the software release of the DNU message.

11008 Minor Admin

Cause: Problems were encountered while attempting to open a delivery to nonuser message.

Impact: The call will be disconnected.

Action: Look up the return code for specific information. If unclear, Contact your NT support organization

NT: Examine the return code.

11009 Minor Admin

Cause: A request for something which has not been implemented has been received.

Impact: The request is ignored. The service may be slow in responding. Temporary data corruption may have occurred.

Action: None. The problem should clear itself.

NT: If the problem persists, check for the source of corruption.

11010 Minor Admin

Cause: An error was encountered while cleaning up resources.

Impact: The operation is not completed. If the operation was to close a file, that file was not closed properly. If the operation was to disconnect, the session remains in service, but the service eventually times out and disconnects.

Action: The error text and return code will identify the unavailable resource. If the error persists, contact your NT support organization.

NT: Look up the return code for further information. Also look at other SEERs during the previous few minutes. If the unavailable resource cannot be identified, notify the development organization.

11011 Minor Admin

Cause: The software encountered an unexpected problem.

Impact: The user may hear an error prompt after which the session will disconnect.

Action: The error text and return code will identify the unexpected problem. If the error persists, contact your NT support organization.

NT: This level of software has encountered a problem with a lower level. Review the lower level return code and related SEERs that have occurred within the previous five minutes. If the source of the problem cannot be identified, notify the development organization.

11012 Info Debug

Cause: Reporting an event worthy of noting.

Impact: None

Action: None

NT: None

Class 111 Voice Forms Service Unit (VFSU)

Introduction

The Voice Forms Service Unit (VFSU) provides two sets of functionality to a user. These are the Voice Forms Caller's Interface and the Transcription Service.

Most VFSU errors affect only one call or user session, unless the error is a symptom of a hardware problem. For serious problems encountered in the Caller's Interface the call is routed to the Form Revert DN, if available; otherwise to the System Attendant DN. In case of the Transcription Service, a serious problem results in the playing of an error prompt, if possible, and the termination of the session. Recovery of resources is performed in all cases, if possible.

The Class 111 SEER will contain the

- Routine which encountered the problem
- Service type
  - — Voice Forms Caller's Interface (VFCI)
  - — Voice Forms Transcription service
- Lower level return code
- Form ID
- Response ID (for Transcription Service)

Note: The Class 111 SEER will contain as many of the above diagnostic aids as determined by availability at the time of issuance.

Reports

11101 Major Error

Cause: Initial resources were not available to start up the service.

Impact: VFSU will not be able to start the requested service. In the case of the Caller's Interface, the call will be transferred to the Form Revert DN if available, otherwise it will be transferred to the System Attendant DN. In the case of the Transcription Service an error prompt is played, if possible, and the session is terminated.

Action: The error text and return code will identify the unavailable resource. Contact your NT support organization for further instruction.

NT: Check if resource exists using the appropriate utility.

11102 Minor Error

Cause: A Caller's Response file could not be created.

Impact: The Caller's Response is lost and the session is terminated.

Action: Look up the return code for specific information. If the code does not help, contact your Northern Telecom support organization.

NT: Examine lower level SEERS for additional information.

11103 Minor

Cause: A request for something which has not been implemented has been received.

Impact: The request is ignored. Service may behave in an unpredictable manner.

Action: The problem should clear itself. If the problem persists, contact your Northern Telecom support organization, supplying them with the SEER printout. Try to determine the sequence of commands that were given by the caller to cause the problem.

NT: Contact the development organization for assistance.

11104 Minor Error

Cause: An error has occurred while trying to play voice.

Impact: The user will not hear the prompt or voice and the session will continue as if playing had succeeded.

Action: Try to determine the scenario that caused the SEER. Collect all relevant information and contact your Northern Telecom support organization.

NT: Attempt to determine the cause of the problem by examining the surrounding SEERs. Specifically, look for SEERs indicating a bad DSP port.

11105 Minor Error

Cause: An error was encountered while cleaning up resources.

Impact: The operation is not completed. If the operation was to close a file, that file is not closed properly. If the operation was to disconnect, the session will remain in service, but the service will eventually time out and disconnect.

Action: The error text and return code will identify the problem resource. Contact your Northern Telecom support organization.

NT: If occurrence is frequent, contact the development team with the relevant information.

11106 Minor Error

Cause: An attempt to revert the caller has failed.

Impact: The caller will not be transferred to an attendant and the session will be terminated.

Action: Ensure that the failing DN has been defined as a valid phone number. If the cause of the problem is still unclear, contact your Northern Telecom support organization.

NT: Use AD_UTIL to enable the DEBUG flag, then collect call progress information from the console window while recreating the problem scenario. Use this call progress information to determine where the problem lies.

11107 Major Error

Cause: The forms manager has been deemed to have a major problem which prevents further use of this service.

Impact: The user may hear an error prompt after which the session will be disconnected.

Action: Look for accompanying Forms Manager SEERs and examine SEER documentation for recommended action.

NT: Examine the related Forms Manager SEERs and take the appropriate action indicated by them.

11108 Minor Error

Cause: A problem has occurred while attempting to access a Caller’s Response file.

Impact: For the Transcription Service, the response is made inaccessible and the session continues. In the case of the Caller's Interface, the caller is reverted to the Form Revert DN.

Action: Examine the lower level return code and act accordingly. If the problem persists, contact your Northern Telecom support organization.

NT: Examine the lower level SEERs for additional information. If there is file corruption, attempt to clean it up. As a last resort, remove the corrupted file.

11109 Major Error

Cause: A problem has occurred while attempting to access a Voice Form Definition file.

Impact: For the Transcription Service, an error prompt is played and the session is terminated. In the case of the Caller's Interface, the caller is reverted to the System attendant.

Action: Examine the lower level return code and act accordingly. If the problem persists, contact your Northern Telecom support organization.

NT: The Form Definition file may be corrupt. Use the Voice Forms Editor to verify the integrity of the file.

11110 Minor Admin

Cause: The Form Definition file for a particular session has been found to be out of service.

Impact: For the Transcription Service, an error prompt is played and the session is terminated. In the case of the Caller's Interface, the caller is reverted to the Form Revert DN.

Action: Ensure that the Form has been fully defined as per Voice Form Editor User's Guide. If the form is intended to be out of service, remove all references to said form.

NT: Remove all references to the out-of-service form.

11111 Minor Error

Cause: A lower level error has been encountered which is beyond control of this service.

Impact: Impact varies depending upon the context in which the SEER is issued. The possible impacts are:

- Error is ignored and the session continues.
- Caller is reverted to Form Revert DN (Caller's Interface).
- Session is terminated.

Action: Examine lower level return code and and handle according to SEER documentation for the specified return code.

NT: Look for the problem using the lower level return code and the surrounding SEERs. Take the action specified for these SEERs.

Class 112 Restore and Recovery (RR)

Introduction

Restore and recovery is run after a hard disk failure. This is initiated after booting from the INSTALL/DATA tape. Restore copies the information from a disk–backup or tape–backup onto the new disk. Recovery checks and corrects inconsistencies in the directory, user cabinets, voice menus and voice forms. The restore and recovery programs are part of the software configuration. These SEERs will only occur when the running from tape. Most lower level return codes would be from BURP (Class 15). If the restore and recovery fails it can be restarted from the beginning. The Meridian Mail system will not operate correctly unless the restore and recovery complete successfully.

Reports

11204 Critical Error

Cause: An error occurred while trying to clean out messages from the user profiles.

Impact: The restore failed.

Action: The return code of the SEER will indicate the cause of the problem. Start the restore from the beginning. If problem persists, contact your NT support organization.

NT: Use the return code to look up the problem in the SEER manual and follow the indicated actions.

11205 Critical Error

Cause: An error occurred copying the prompts from tape to VS2.

Impact: The restore failed.

Action: The return code indicates the cause of the problem. This would usually indicate a tape drive with dirty heads, or a faulty prompt tape. Try the operation again. If it fails contact your NT support organization.

NT: Copy the prompts from another installation tape.

11206 Critical Error

Cause: Error reading the features of the system from VS1.

Impact: The restore failed.

Action: If no errors occurred up to this stage of the restore and recovery, and voice forms were not installed on the system, then this is not a serious error. If voice forms were installed on the system then the restore and recovery will have to be started from the beginning.

NT: Same as action

11207 Critical Error

Cause: Could not copy user profiles from volume VS901 or VS902 to the destination user volume.

Impact: The restore failed.

Action: The return code in the SEER will indicate the cause of the problem. The restore will have to be restarted from the beginning.

NT: Same as action

11212 Critical Error

Cause: An error occurred during the restore of a volume from tape to disk. The return code in the SEER indicates the cause of the problem.

Impact: The restore failed.

Action: The restore and recovery procedure will have to be started from the beginning. If the SEER indicated a problem with the backup tape then an older set of backup tapes should be used for the restore.

NT: Same as action

11213 Critical Error

Cause: An error occurred while checking the user cabinets against the directory.

Impact: The restore failed for the specific node.

Action: The restore and recovery will have to be redone for the node that had the error. The return code of the SEER will indicate the cause of the problem. This SEER will not stop the recovery from proceeding.

NT: Same as action

11214 Critical Error

Cause:
1. In most circumstances this report indicates that an error occurred while checking the user entries in the directory for matching cabinets.
2. If no users were added to the node, then this SEER is not a problem. It simply indicates that the user cabinet structures have not been set up.

Impact:
Case 1. The restore failed for the specific node.
Case 2. No impact.

Action:
Case 1. The restore and recovery will have to be redone for the node that had the error. The return code of the SEER will indicate the cause of the problem. This SEER will not stop the recovery from proceeding.
Case 2. No action.

NT: Same as action.

11217 Critical Error

Cause: An error occurred while synchronizing the voice services to the directory.

Impact: The restore failed. This SEER will not stop the recovery process.

Action: The return code from the SEER will indicate the cause of the problem. This error will only affect the voice services in the system.

NT: Same as action

11218 Critical Error

Cause: An error occurred while synchronizing the directory to the voice services.

Impact: The restore failed. This SEER will not stop the recovery process.

Action: The return code from the SEER will indicate the cause of the problem. This error will only affect the voice services in the system.

NT: Same as action

11219 Critical Error

Cause: An error occurred trying to synchronize the voice forms for the system.

Impact: The restore failed.

Action: The return code from the SEER will indicate the cause of the problem. This error will only affect the voice forms in the system.

NT: Same action

11224 Info System

Cause: User aborted restore

Impact: The restore will not be performed. System remains in its previous state.

Action: If a restore is desired, reboot from tape and perform the restore; otherwise, boot the system into service.

NT: Same action

11225 Critical Error

Cause: Could not retension a tape.

Impact: The tape is unusable; restore cannot continue. The system may be left in an unusable state.

Action: Ensure the correct tape is being used and try the tape again. If problem persists, redo restore with a different set of backup tapes.

NT: If tape retensioning problem persists on different tapes, try replacing the tape unit. If problem still persists on a particular tape and no other backup tapes are available, the system may have to be reinstalled.

Class 115 Dialing Translation (DT)

Introduction

Dialing Translation translates Directory Numbers (DNs) from a format that includes a country code (for international dialing only), area code, and local number to a dialable format.

Each system installed with AMIS–A Networking and/or Fax On Demand (call back transmission) has the Dialing Translation feature.

The Dialing Translation feature contains a few tables that should be configured according to the system location. The tables must be configured before the system can be used. All of the tables are stored in the Network Database.

A class 115 SEER also usually contains a return code from return code classes such as Network Database, Disk Data Interface (DD), and CLI.

Reports

11501 Major Error

Cause: NA failed to gain access to the Network Database.

Impact: Administrator cannot view/modify dialing translation.

Action: Look up the low level return code for specific information and contact your Northern Telecom support organization.

NT: It is likely a software problem. Notify the development organization.

11502 Major Error

Cause: Error occurred while using the command line interpreter.

Impact: Administrator cannot view/modify dialing translation.

Action: Look up the low level return code for specific information, and contact your NT support organization.

NT: Contact software development if the problem persists.

Appendix A: Error/Return codes

MISA Error Codes

I/O Error Results (Helix IO results—IO Error Class)

501	Mixing I/O operation types (for example, READLN, BLOCKREAD)
502	Resource limit reached
520	Illegal character written to terminal driver
530	Out of bounds
540	Attempting I/O operation on unopened file
541	File already open
542	File not committable
543	Illegal attempt to seek
544	Bad file set ID
545	Server not found
546	Operation not allowed across file systems
547	Already logged on
548	Client helix resource limit
549	Value overflow
551	Accept timeout
554	Invalid task ID
555	Reply error - accepting task died
557	Invalid time given to WAITTIME
559	Initiate or re-initiate error
565	Pool error
567	Mini task tried to initiate another task
571	No appropriate buffer for tasking operation
572	No transmit buffer, network overloaded
573	Invoker stack overflow
574	Invalid push/pull parameters

575	Parameter mismatch in remote operation
576	Entry not found in remote operation
577	Remote communication problem
578	trLocale
579	Bad event passed to SetTimer
580	No control blocks
581	Server accept time-out
584	Bad task
600	Mismatch in server/client interface
601	Bad pathname
602	File not found
603	Cannot create
604	Attempt to create file with duplicate name
605	Bad address
606	I/O operation attempted outside file limits
607	Mode conflict
608	Bad object type
609	Access denied
610	Invalid password
611	Server does not support command
612	Device off-line, could not communicate
613	Server resource limit
614	Parity error reading data from server
615	Disk write–protected
616	No directory
617	Attempt to write read-only file
618	Bad access mode
619	Bad remote pointer
620	Transaction time–out on close/commit of file set
621	Date not set - attempted file commit with no time
630	No directory on floppy
631	Too many files on floppy
632	No room on volume
633	New volume mounted
634	Time-out on volume
640	Serious error level
648	Invalid site address

649	Protocol error between communication servers
650	Communication link failure
651	Remote site failure
652	FID not recognized by server
653	Software consistency check failed
654	File set transaction ID invalid
655	Bad volume ID in FID
656	dpares field input non-zero
657	Invalid UNIX object type
658	File exists already
659	Source pathname invalid
660	Illegal parameter
661	Destination pathname invalid
662	Bad volume ID in destination FID
663	Invalid input parameter
664	Bad password input
665	Bad volume control parameter
666	Invalid agent ID on logout
667	No std delete of directory
668	Bad instance key
669	Read error in user data
670	Write error in user data
671	Bad agent or object task ID
672	Bad command length
673	Bad volume ID in source FID
674	Permission denied
675	Bad block count
676	Bad sequence number
677	FOS data timeout

SEER return codes

10—Disk Data Interface (DD)

1000	Insufficient memory space in heap to perform the function
1001	File too big to be opened using supplied advice
1002	File is corrupted
1003	Record not found
1004	File has grown to its maximum size
1005	Not implemented
1006	Function does not work at EOF
1007	Attempt to open non-existent or destroyed file
1008	Bad parameters passed to DD function
1009	Attempt to open file with no block table
1010	Attempt to align FCBs of different files
1011	Function called on unopened or uncreated file
1012	FCB is already being used or not initialized to nil before first use
1013	Maximum FCB links limit exceeded
1014	DD internal error
1015	Attempt to access data outside record boundary
1016	Attempt to access block outside block sequence boundary
1017	Attempt to update a read-only file instance
1018	Block sequence operation attempted on nonblock sequence record
1019	Lock time-out
1020	Attempt to insert wrong media into BS
1021	Cannot upgrade the mode of this file

11—Volume Server (VS)

1101 Tasking error
1102 File is alread closed
1103 Server full—no free blocks on disk volume
1104 Invalid block ID received from client
1105 Server not found for volume
1106 Attempt to update a file by multiple programs
1107 Maximum number of files for VS volume has been opened
1108 VS limit for number of queues has been reached
1109 VS limit for number of clients has been reached
1110 File opened too long in quick RW mode
1111 Invalid FID passed in
1112 Attempt to open file using NIL taskID
1113 Attempted illegal function
1115 Rls; corrupt block ID buffer
1116 Get; corrupt block ID buffer
1117 Invalid media specified
1118 Internal limit; max BRs
1119 Attempt to write to OFS
1120 Failed to initiate MI_SERVER I/F
1121 Failed to logon to MI_SERVER
1122 Bad parameters or argstring
1123 OF server crashed
1124 No memory for server
1125 Internal limit; max OutBRs
1126 Vol ID mismatch
1127 Bad Key
1128 Too many files open in qRW mode
1129 Control function conflict
1130 Disk/MASI/MI_SERVER Error
1131 Could not write system block
1132 Normal audit
1133 Bitmap is damaged
1134 Startup error
1135 Internal failure
1136 User has exceeded allocated disk space
1137 User has passed in a bad client ID

1138	Could not write SR table to disk
1139	Internal limit: Maximum client IDs
1140	Write–protected
1141	Error during voice volume compress
1142	Backup volume out of space during on-line backup
1143	Server table locked too long by client s/w
1144	vs_e File Unknown
1145	Too many open file servers registered with VS
1146	Audit failed
1147	Task which had a file open died without closing the file
1148	Error during online backup
1149	Normal backup
1150	Client holds obsolete file view too long
1151	Error invoking OFS
1152	Block mismatch in shadow disk audit
1153	Disk not shadowed
1154	Audit not done yet

12—Cabinet Access Method (CM)

1220 notACab; target file is not a cabinet
1221 notAllowed; insufficient access rights for requested operation
1222 noMemory: client-provided heap space is too small
1223 badPath: PathName is not valid
1224 notFound: the requested target was not found
1225 limitReached: internal CM limit encountered
1226 Bad index for file insertion
1227 Menu not allowed to be opened for file insertion
1228 Sub-mailbox counter entry not found
1250 Inconsistent: cabinet file appears to be inconsistent
1251 badVersion: incompatible versions of cabinet and CM
1280 badParm: input parameter has illegal value
1281 notImplemented: Phase II feature
1282 Defect: logic error encountered

13—Open File Server (OFS)

1301 No memory available for OFS cache
1302 Bad parameters passed to OFS
1303 Tasking error talking to VS
1304 Error from VS
1305 Error during loading of shared memory file
1306 Shared memory file size has changed
1308 Read misrouted to OFS by VS
1309 Tasking error pushing to client
1310 OFS startup error

14—MI Server and Interface (MI)

1410 DCB to SCSI driver invalid
1411 SCSI internal queue full
1412 SCSI driver is locked, try alternate node
1413 SCSI driver error, or for sd_cRD2 then error on primary disk read
1414 Error for sd_cRD2 on shadowed disk read
1415 Error for sd_cRD2 on primary and shadowed disk
1420 Problem execuitng MI operations
1430 mi_procs tasking error with mi_server
1434 mi_procs control tasking error with mi_server
1435 mup_pkg info tasking error with mi_server
1440 Internal segAlloc failed
1441 Internal segAlloc failed
1442 Internal segAlloc failed
1445 Client's read buffer address was bad
1446 Client's write buffer address was bad
1452 Requested mi_server does not exist
1453 Specified volume does not exist
1454 Insufficient contiguous space on disk
1455 Invalid transfer length
1456 Invalid starting address
1457 Task error on data push
1458 Task error on data pull
1459 Volume of specified name exists
1460 Exceeded size of volume table
1461 Specified block size is invalid
1463 Control block corrupt or uninitialized
1464 Configured size provided is out of bounds
1465 Sanity test failed
1466 mi layer is locked
1467 Unknown error returned from SCSI layer
1469 Memory segment already exists
1470 Disk not defined in internal mi table
1471 Defer queue has been reset
1472 Internal mi table has been corrupted
1473 Internal volume table has been corrupted
1474 Invalid control code for control entry

1475	Task error on data push
1476	Task error on data pull
1477	Tasking error waiting for operation
1478	Tasking error waiting for operation
1479	Tasking error waiting for operation
1480	Internal volume table could not be processed
1481	No hardware up for alternate node rendezvous
1482	Ticket volume index was out of range on read
1483	Ticket volume index was out of range on write
1484	Volume index out of bounds in FindVolIndex
1485	Volume index out of bounds in GenVolTable
1486	Bad priority to mi_ReadDisk
1487	Bad priority to mi_WriteDisk
1488	Could not Segalloc for MICB in mi_tools
1489	Range error in ReadDisk or WriteDisk
1490	Read from SCSI layer timed out
1491	Write to SCSI layer timed out
1492	Defer queues in use mismatch with counter

15—Backup and Restore Program (BURP)

1501 Recovered error from tape SCSI driver
1502 Tape drive can not be accessed or cartridge not inserted
1503 Flaw in the tape medium or heads are dirty
1504 Tape hardware error
1506 SCSI bus was reset
1507 Tape cartridge is write protected or wrong type
1508 No data found on tape
1511 Tape drive aborted SCSI command
1513 End of tape reached without writing all the data
1517 Timeout during tape operation
1518 SCSI tape driver error
1519 No tape drive found for tape operation
1533 End of media detected
1534 End of file detected
1535 Error reading disk during tape backup
1536 Could not find source volume for restore
1537 Could not open source volume for restore
1538 Could not find destination volume for restore
1539 Unexpected error from the tape SCSI driver
1540 Error during tape backup
1541 Error during disk backup
1542 Error acquiring memory for backup or restore operation
1543 Error initiating backup task
1544 Tasking error trying to inform client of completion
1545 Could not open destination cabinet to copy profile
1546 Volume requested does not exist
1547 Error creating the destination volume for disk backup
1548 Error obtaining statistics for volume
1549 Disk read error during tape backup
1550 Error deleting the temporary online backup volume
1551 Tasking error checking to see if user wanted to abort backup
1552 Volume server for an online backup not up
1553 Tasking error communicating with backup task
1554 Error copying a user profile during a partial backup or restore
1555 Too many backup tasks running
1557 Backup task could not locate the volume to be restored on the tape

1558 Tasking error informing client of a backup error
1559 Error creating heap for user profile backup
1560 Error creating heap for backup task
1561 Error registering the backup task
1562 Offline backup attempted when volume is online
1563 Error verifying the volume on disk
1564 Recoverable media error during tape backup
1566 Bad or unknown source volume name
1567 Wrong version of tape backup
1568 Tape and disk volume sizes do not match
1569 Block sizes on disk and tape do not match
1570 Not the first backup tape
1571 Disk read error patching volume from online backup
1572 Disk write error patching volume from online backup
1573 Time stamp for online backup differs more than expected
1574 Invalid root block in backup volume while patching online backup
1575 Tasking error while prompting for a new tape
1576 Tasking error talking to backup task
1577 Error shutting down the profile backup volume
1578 Error starting the profile backup volume
1579 Voice volume not on tape
1580 Backup volume not on tape
1583 Error reading tape
1584 Error writing to disk
1585 Error reading disk
1586 Error reading disk during a disk–to–disk copy
1587 Error writing to disk during a disk–to–disk copy
1588 Error during disk–to–disk copy
1589 Error during VSRESTORE command
1590 Tape headers do not match
1591 Tape out of sequence
1592 Tape time stamps do not match
1593 Tape block does not overlap previous tape
1594 Previous backup task still exists

16—System Operation (SYSOP)

1600 Information only
1601 Error closing file
1602 Error reading from file
1603 Error writing to file
1604 Error searching for a data token in file
1605 Error starting task described in SEER
1608 Error shutting down volume server
1609 Error opening sc_seer.data file
1610 Error shutting down helix server
1611 Error auditing volume
1612 Too many retries, operation aborted
1613 Invalid filter type
1614 Invalid token index
1615 Error copying helix file
1616 Error creating hardware database
1617 Error opening hardware database
1618 Error closing hardware database
1619 Error adding component to hardware database
1620 Error initializing a search in hardware database
1621 Error searching hardware database
1622 Error closing dd file
1623 Error creating dd record
1624 Error locating :RAM or :BOOT100 server
1625 Error writing dd file
1626 Error reading CPTD record
1627 Error obtaining FID for cabinet manager
1628 Error opening cabinet
1629 Error copying cabinet file
1630 Error closing cabinet
1631 Error adding file into cabinet
1632 Error obtaining FIR from path name
1633 Error in IP address format
1634 Error in IP address format
1635 Error in IP address format
1636 Error obtaining system information from PRM
1637 Error initiating audit on volume

1638 Error waiting for audit to complete on volume
1639 Error writing operating system to disk
1640 Error initializing MI control block on disk
1641 Error configuring disk size
1643 Error loading operating system to remote nodes
1645 Error copying language from tape
1646 Error finding CPTD record
1647 Error priming the DR
1648 Error opening file
1649 Error allocating segment in memory
1650 Error creating heap
1651 Error modifying a component in hardware database
1652 Error creating MI volume
1653 Error accessing MI volume
1654 Error formatting volume
1655 Disks too small for number of hours
1656 Version on disk does not match version on tape
1657 Cache volumes not created
1658 Disk not accessible to node
1660 Error extracting GAC data port names
1661 Error obtaining VS statistics
1662 Error shutting down the DR server
1663 Error auditing the DR server
1664 Error waiting for DR audit to complete
1665 Error verifying user cabinets to DR
1666 Error compressing volume
1667 Compressed volume is incorrect size
1668 Error changing the size of a volume
1669 Error expanding the size of a volume
1670 Error obtaining VS operational measurements
1671 Error searching for feature
1672 Error copying helix file
1673 Error creating DSP file
1674 Error obtaining MI server statistics
1675 Error determining node number for disk
1676 Error creating language record
1677 Error initializing network database

1679	Error determining free space in volume
1680	Error shutting down VOLCONTROL task
1681	Error shutting down NODEVOL task
1683	Error deleting helix file
1684	Error starting up the DR server
1685	DR failed sanity check
1686	Error waiting for task to start
1687	Error waiting for task to shut down
1689	Error determining file size
1690	Error opening file
1691	Error starting PRM
1692	No heap available for determining nodes
1693	Error determining nodes in system
1694	Error changing password to default
1695	Error searching for boot file names
1696	Error adding system profile
1697	Error adding first customer profile
1698	Insufficient space on any volume to move Voice Services
1699	Incorrect fill type in sc_FillNodeList

17—System Operation (SYSOP)

1701 Invalid system type in cardloc.data
1702 Unsupported hardware component type for sc_getHWdata
1703 User aborted moving of Voice Services to another volume
1704 Error moving Voice Services to another volume
1705 Error writing billing control table
1708 Moving of Voice Services successfully completed
1709 Error adding switch records
1713 Error moving Voice Services cabinet
1714 Error opening cabinet in moving Voice Services
1715 Error finding a Voice Service
1716 Error moving a Voice Service
1719 Number of nodes cannot be reduced
1720 Error obtaining the UAT data port names
1721 Error adjusting volume server parameters
1722 Error adjusting users on a volume server
1723 Error syncing voice service definitions
1724 Error updating DR for voice service definitions
1725 Error syncing voice form for a given volume
1726 Insufficient space on disk for the requested number of languages
1733 Error retensioning tape
1734 Error building LIFN node
1735 System already has maximum number of languages
1736 Error opening source cabinet
1737 Error opening destination cabinet
1738 Error determining if file exists
1739 Error deleting Voice Services cabinet
1740 Invalid move of Voice Services on Option 11
1741 Error loading disk utilities onto node
1742 Error removing disk utilities from node
1743 Error obtaining disk information
1744 Error enabling disk seer reporting
1745 Error during disk operation
1746 Error in task or disk operation
1747 Error obtaining disk mirroring information
1748 Error registering VOLCONTROL task
1749 Error locating NODEVOL task

1750	Error locating NODEVOL task
1751	Task error sending to NODEVOL task
1752	Task error accepting from NODEVOL task
1753	Error finding task for de–registration
1754	Error initializing VOLCONTROL task
1755	Error creating buffers for VOLCONTROL task
1756	Error logging on to helix server
1757	Insufficient heap to allocate storage
1772	Cannot find HDBLDxxxxxx in Name Server
1784	No SBC card on Node 1
1785	Cannot find component
1786	Error sending volume
1787	Error sending volume operation
1788	Error receiving reply from volume operation
1789	Disks not mirrored
1790	User aborted breaking mirror operation
1791	User elected to continue without backup disks
1792	Error initiating loading of LIFN RAM disk
1793	Invalid port specified
1794	Error getting keycode from sc_keycode
1795	Failed to read serial number from Meridian 1 side
1796	Error reading font data file (FONTFILE)
1797	Feature bit in keycode invalid
1798	Error creating font record
1799	Expanding to HVS is not permited

19—File Server Pascal Utilities (FS Tools)

1901 Server is up; it should be down
1902 Text volume size is too small to format
1903 NewMaxSR is too small for MaxSR used
1904 New volume size < old volume size in expand
1905 Helix file does not have MISA data
1906 MISA destination file already exists
1907 Helix file has bad block sequence
1908 Bad volume number in pathname, /nnn/...
1909 Could not open cabinet
1910 Could not allocate segment
1911 Could not get heap
1912 Error returned from rendezvous
1913 Could not log onto server
1914 Compress size was actually an expand
1915 Inadequate free space in volume to compress to requested size.

20—Voice Handler (VH)

2000 No memory available to perform the function
2001 Integrity failure
2002 Bad command sequence
2003 Bad parameter has been passed to the function
2004 Operation occurred in a bad state
2005 Software problem in VH
2010 Voice record is neither opened or created
2011 Empty voice segment
2012 This record is not a voice record
2013 Bad paragraph
2015 Bad prompt set was submitted by the application
2016 Bad session ID
2020 Command queue is full
2021 Command queue is empty
2022 Prompt queue is full
2023 Prompt queue is empty
2030 Cannot skip backward before the beginning of a voice segment
2040 VPTime–out; voice compressor has not replied within a set time
2041 Voice processor device handler error has occurred
2042 Lost silence message
2043 Play request for voice data which is bad or non-existent
2050 End of voice segment
2051 Prompt has ended
2052 Recording has exceeded set time limit
2053 Bad spoken name
2054 Time-out occurred due to long silence
2090 Tasking error with respect to vh_TaskVPIO
2091 Tasking error (OnError invoked)
2099 Non–VH error

21—Voice Prompt (VX)

2101 Input not found for variable field
2102 Invalid data input to variable field of template
2103 Template ID passed by application out-of-range
2104 Failure has occurred in vx_init function
2105 Failure has occurred in the TransField function
2106 Failure has occurred in the TransPrompt function
2107 Failure has occurred in one of the PlayXFld functions
2108 Invalid data found in field component record
2109 Invalid data found in template definition record
2110 No memory available to perform the function

22—Voice Messaging (VM)

2201 Playing problem
2204 Record problem
2206 Reply problem
2207 Play envelope problem
2208 Forward problem
2209 Reply all problem
2210 Compose problem
2212 Send problem
2213 Login problem
2214 Greeting problem
2215 Disconnect problem
2217 Call sender problem
2218 Attendant problem
2221 Change password problem
2222 Spoken name problem
2223 Personal distribution problem
2225 Creating a message
2226 Adding a message
2227 Opening a message
2228 Updating a message
2229 Altering a message
2230 Closing a message
2231 Deleting a message
2232 Initial resources not available
2233 Could not clean–up resources
2234 Failed to turn on Message Waiting Indicator
2235 Entry called out of syncronization
2236 Call answering problems
2237 Code does not handle all possibilities
2238 No additional information is available
2239 Problem skipping backward
2250 Quick compose set–up failed
2251 Extension dialing request failed
2253 Unable to get sent digit
2254 Message tagging failed
2255 Unable to play address

2256	Problem while name addressing
2257	Problem in remote notification administration
2258	Problem in Chargeable Operator Assistance Number Service
2259	No memory available to perform the function
2260	User’s mailbox is full
2261	Inconsistent data found on disk

24—Voice Processor Handler (VPH)

2401 Tasking error on sending to VPIO
2402 Driver time-out
2403 Disk I/O time-out
2405 DSP Put command error
2406 Tasking error on send to application
2407 Invalid message from driver
2408 RCD buffer not cleared
2409 Long int error in updating playback buffer
2410 RCD buffers b/w handler & driver out of synchronization
2411 Cannot retrieve data from DSP data queue
2412 Cannot retrieve data from driver message queue
2413 DD error on vs_ReadBlock request
2414 DD error on vs_WriteBlock request
2417 Onerror clause invoked after send to VPIO
2418 Onerror clause invoked after send to application
2419 Driver data underflow-playback
2420 Driver data overflow-recording
2422 Driver echo wrong sequence number
2423 Byte read error reading driver parameters
2424 No file name for driver parameters
2425 Dsp_Stop_Drv failure: cannot stop driver
2426 Dsp_Start_Drv failure: cannot start driver
2427 Odd shared memory address returned by PP_Base
2428 Cannot pass codec byte to driver
2429 Unexpected block received - playback
2430 Request timer failed in startup
2431 Unexpected end_of_block msg. from driver
2432 Invalid message value from driver
2433 Some error in reading driver parameters
2434 Driver rejects command
2435 Command received when driver offline
2436 Block stamp doesn’t match stamp in play cmd.
2438 Bad command sequence from vh_vpio
2440 Cannot find VCA to report a driver fault
2441 Cannot initiate VPHandler
2442 Newpool failed

2443	Addpool failed
2444	Newvar failed for debug buffer
2446	Cannot inform VCA
2449	Problem logging into SMDI link handler
2450	Application command not executed
2451	Application command not supported
2452	Internal state table error
2453	Unknown timeout
2454	InCallDetail or call detention time-out
2455	Invalid line status reported from the DSP
2456	Long tone message from DSP
2457	Procedure variable is nil
2458	NewVar failed
2459	Unknown digit detected by DTR
2460	Voice detection request in the wrong context
2461	Bad or undefined DSP message received
2462	Tasking error with VPHDLR
2464	Could not report to VCM
2466	MainteReq: could not report status to VCM
2470	Re-login timer has expired in the wrong state
2471	Channel being enabled/disabled in the wrong state
2472	Problem logging in/out of ACD/UCD agent
2473	Retrying login/logout command
2474	Unable to initialize
2475	Timeout on receiving dial tone after tonegen command
2476	Outgoing call not yet established
2477	Font table is not compatible with the FASCII block
2480	Is_SegAlloc failed for locale
2481	NEWHeap VPHP_DDHeap failed. NEWHeap, VPHP_SpaceHeap failed.
2482	GetBuffers Mem used NEQ need.
2483	More tasks requested than specified (the nth channel being enabled, and the maximum channels that can be enabled for the node)
2484	StartChild – error in sending to child task; SendError to Child task (task result)
2485	StartChild – no room in table for TN & TaskID
2486	TaskID not found in table
2487	Could not get Node/Ports # from ARGSTRING
2488	GetMem failed

2489	Failed to allocate CommTask	
2490	RegParent failed	
2491	Exception with child (# of active voice ports remain TN)	
2492	Completion with child (# of active voice ports remain TN)	
2493	VCM is trying to start a VPH on a channel that already has a VPH	
2499	Info	Debugging SEERs for the VPH

25—Application Module Link (AML)

2501 Tasking error occurred—the AML failed to communicate with an application task
2502 Application task tried to login to AML with an invalid directory number
2503 Hardware database operation failed
2504 Failed to close hardware database
2505 AML link is up
2507 The Meridian 1 is overloading
2508 Failed to send message to Meridian 1
2509 AML's lower layer is not ready
2510 Receive queue is full
2512 Failed to register to NameServer as link handler
2513 AML failed to start the lower layer
2514 Argument string in the startlist for AML is out of range
2515 No argument string in the startlist for AML
2516 Failed to allocate memory segment
2517 Failed to create new buffer pool
2518 Failed to initiate AML task
2519 Failed to add buffer pool together
2520 AML link down
2522 MWI update failed
2523 AML link handler has timed out waiting for the traffic congestion condition to clear in the LAPB protocol layers
2524 System ID is undefined
2525 Time of day was not set up on the Meridian 1
2550 Invalid user
2551 Invalid command
2552 Invalid calling DN
2553 Invalid called DN
2554 Invalid call manner
2555 Link is down
2556 Invalid DN
2557 Link error
2558 Transmit queue full
2559 Login table is full

26—Peripheral Processor (PP)

2611 DSP is MtcBusy or online
2612 DSP not online
2613 DSP not offline
2614 DSP does not exist
2615 Failed to Segalloc memory
2617 Diagnostic request arrived too late
2619 Load file open error
2620 No package parameter block
2621 Bad load package ID
2622 Load file read error
2623 PP_Load tasking problem invoking PP_Update
2624 Not enough memory
2626 Failed to set H/W status register
2627 PP_Reset tasking problem invoking PP_Update
2628 DSP not loaded
2630 Bad private program memory
2631 Bad private table memory
2632 Bad shared data memory
2633 Bad control/status registers
2634 Bad DSP processor
2635 Bad DSP interrupts
2636 Bad voice tap
2637 Bad DSP–DSP memory
2639 PP_Run tasking problem invoking PP_Update
2640 H/W status register HdlA+Reset+VmMtc
2643 Cannot allocate driver ID
2644 Cannot allocate DSP load
2645 Cannot allocate internal data memory
2646 Cannot allocate private program memory
2647 Cannot allocate private table memory
2648 Cannot allocate shared data memory
2649 Cannot allocate DSP–DSP memory
2650 Cannot allocate voice memory
2651 Cannot allocate terminal numbers
2652 Cannot send message to DSP executive
2653 Timeout on DSP response to start command

2654 Interrupt received but cannot get message
2655 Wrong response message type
2656 Bad allocation tables
2657 DSP executive error: RetCode in bits <6:0>

DSP Executive Errors

Code	Error Message
00	No error
01	Message length error
02	Invalid command
16	INIT command errors
32	AUDIT command errors
48	START command errors
49	No driver instances available
50	Nil DCT_Ptr in driver index table
51	No available DCT record
52	No internal data memory page allocated
53	No foreground and no background program
64	STOP command errors
65	No foreground record found
66	No background record found
67	No foreground and no background records

Note: These error codes are in the lower seven bits of the DSP executive error and are returned from DSP software.

2659 Driver or executive driver not active
2660 Cannot send command to DSP executive
2661 Timeout on DSP response to stop command
2662 Cannot get response message
2663 Wrong response message type
2664 Wrong Driver_ID in response message
2665 Deallocation error
2666 DSP execution error: RetCode in bits <6:0>
2668 Invalid driver ID (not active)
2670 Cannot get response message
2671 Wrong response message type

2672	Time–out on DSP Response to PPMPg command
2673	Cannot send PPMPg command
2674	Need the slot number in argument (SPM only)
2675	Failed to map VP12 control register
2676	Sub–task died
2677	Read hardware database related error
2678	CardNumber out of range
2680	Driver capability exceeds DSP capability
2699	Debug SEER

27—Voice Base Service Shell (VSS)

2701 ACD DN or channel DN or dialed DN was not found in the VSDN table

2702 Invalid service identifier

2703 Start–up procedure is not defined for a Voice Service

2705 VSS is already in use when VCA passes the service request to the VSS

2706 VSS failed to start a Voice Service

2707 VSH_PROCS routines fail to talk to the VSS; it is likely that the remote Voice Service forgot to call vsh_BindVSSTid or the VSS crashed

2708 Invalid language value was passed to vsh_GetPrmptFid

2709 No digit stored in the VSS

2710 Too many digits overflowed the buffers in VSS

Keypad digit codes

Code	Meaning
1	One
2	Two
3	Three
4	Four
5	Five
6	Six
7	Seven
8	Eight
9	Nine
10	Zero
11	Star ‘*’
12	OctoThorpe ‘#’
13	Military ‘A’ digit
14	Military ‘B’ digit
15	Military ‘C’ digit
16	Military ‘D’ digit
17	Pause (character ‘,’ and ‘*’)

2711 VSS generates SEER

2712 Errors occurred during attempts to initialize data for new session

2713 Errors occurred when in the process of disconnecting a call.

2714 Incoming call’s service ID does not match the running service of the VSS

2715 Errors occurred during the process of switching services

2716 Errors occurred in the initialization process of the VSS

2717 Time-out while waiting for FromCSL, StartCall or Disconnect

2718	Procedures in VSH_PROCS called before initialization complete
2720	Failure to request VPDH to place an outgoing call
2721	Failure to tell service task to shutdown
2722	Time-out in setting the lock to access the digits buffer in VSS
2723	Error in CAT data; failure to dial out
2724	Negative call duration
2730	Requested operation is not supported
2731	Bad call processing command
2732	Miscellaneous error

Meridian 1 call state

0	idle
1	2–party call is established
2	an incoming call is being presented
3	the called party is being rung
4	call is on hold
5	add-on call is being rung
6	add-on call has been answered
7	conference call is established
8	called party is busy
9	receiving reorder tone
10	half disconnect

(2732) VSS Incoming call debug information

SYNTAX: VSS Incoming CGN: <DN1> <DNType> CDN: <DN2> <DNType>. Call Type: <CallType>

DN1		DN of the calling party
DN2		DN of the called party
DNType	0	Unknown
	1	International
	2	National
	3	Special
	4	Subscriber
	5	ESN (location code call, e.g., ESN)
	6	Coordinated Dialing Plan (CDP)
	7	Reserved
	8	Internal extension
	9	Route Access Code and member number
	10	Route Access Code only
	11	Attendant code and member number
	12	ACD DN and position ID
	13	ACD position and DNIS
	14	IANI ACD DN and position ID
	15	InBand ANI
	16	ACD DN
CallType	0	Direct call
	1	Call-forwarded call
	2	Call-forwarded on busy
	3	Call-forwarded on no answer
	4	Call-forwarded on Do Not Disturb

2733	Invalid information type is specified in the vsh_QueryInfo routine
2734	Call cannot be answered because it is already disconnected or answered
2736	VSS was told by VCA to shutdown during registration
2737	Failed to send outgoing call progress status to service task
2741	Invalid customer number
2742	Prompt files were opened from the disk
2743	Unrecognized prompt file name
2744	Failed to acquire a voice port
2761	Invalid internal timer value

28—Generic Telephony Interface (GTI)

2801 Tasking error
2802 Command not supported for the configuration
2803 Bad parameter in procedure call
2804 MWI server does not exist
2806 Syntax of DN is incorrect
2807 Invalid digit
2808 Size of the DN is invalid
2810 DN already logged in
2811 DN was not found in link handler table
2812 Link is not in service
2813 Device status is already set
2815 No more entries in the device DN table
2816 Not an associated set
2817 Channel allocation failed
2818 Channel deallocation failed.
2819 Query information operation failed
2820 Communication has been broken between the link handler and the application
2821 Link handler is in standby mode

29—Link (AML)

2930 Meridian Mail starts link initialization
2931 Meridian Mail unable to initialize link
2932 Meridian Mail layer 1 transmit error
2933 Meridian Mail starts link initialization
2934 Meridian 1 does not respond
2935 Link is up; initiated by Meridian Mail
2936 Link is up; initiated by Meridian 1
2937 Meridian 1 does not respond
2938 Link is up; initiated by Meridian 1
2939 Meridian 1 starts link initialization
2940 Link is up; initiated by Meridian 1
2941 Meridian Mail clears timer recovery condition
2942 Meridian Mail clears timer recovery condition
2943 Meridian Mail starts link initialization
2944 Meridian Mail starts link initialization
2945 Meridian Mail starts link initialization
2946 Meridian 1 requests link disconnection
2947 Link is up; initiated by Meridian 1
2948 Meridian Mail clears timer recovery condition
2949 Meridian Mail clears timer recovery condition
2950 Meridian Mail starts link initialization
2951 Meridian Mail requests link disconnection
2952 Meridian Mail starts link initialization
2953 Link is up; initiated by Meridian 1
2954 Meridian Mail starts link initialization
2955 Meridian 1 starts link initialization
2956 Link is up; initiated by Meridian 1
2957 Meridian Mail clears timer recovery condition
2958 Meridian Mail starts link initialization
2959 Meridian Mail starts link initialization
2960 Meridian Mail layer 1 transmit error
2961 Meridian Mail starts link initialization
2962 Meridian Mail starts link initialization
2963 Meridian Mail starts link initialization
2964 Meridian Mail layer 1 receive error
2965 Meridian Mail layer 1 transmit error

2966	Meridian Mail is ready for link start
2967	Meridian Mail received a frame with half data
2980	Meridian Mail received a Reset command from the switch
2982	Meridian Mail received a Disconnect command from the switch

30—Administration Base (AD) codes

3001 Error occurred obtaining the FID at a personal profile

3002 Number of bytes read is not as expected

3003 Invalid customer number specified when trying to open a customer profile

3004 Invalid customer number specified when trying to get the FID of the customer profile and the parent cabinet

3005 Pointer(s) to the profile(s) are not setup correctly

3006 Could not update system profile with information in the system record file

3007 Personal profile to be added already exists on the system

3008 Customer profile to be added already exists on the system

3009 File pointer to the COS profile is missing when reading a user profile

3010 Invalid COS number specified when reading a user profile

3020 Unable to retrieve a COS record from the specified organization profile

3021 Unable to update a COS record in the specified organization profile

3022 Unable to locate the COS offset record

3023 Retrieved COS record is of the wrong length

3024 Unable to delete the specified COS record

3025 Trying to add a second customer to a uni–customer system

3026 Trying to add a defined customer to the system

3027 Invalid record specified when adding a component record that has COS fields

3030 Unable to install the language record

3031 Unable to install the switch record

3032 Unable to install the font record

3051 Error occurred accessing the DR

3070 Major error caused the conversion process to abort

3071 Minor error(s) were encountered during the conversion process

31—Directory Server (DR) codes

3101 Bad primary index file: file too short
3102 Bad primary index file: file too short
3105 Server cache segAlloc returned newSeg false
3106 Server cache segAlloc failed: no memory
3107 Unable to initiate update agent
3109 Error performing control function (dr_Control)
3116 File system error, directory may be corrupted
3117 Bad secondary index - continuation flag, no next file
3118 The directory update task was unable to obtain the entry to update using the pull mechanism.
3119 The directory server was unable to return directory operational measurements to an application by using the push mechanism.
3122 Consistency check: keyRegenerate filter reject
3123 Consistency check: keyRegenerate bad language
3124 Consistency check: keyRegenerate bad keyType
3126 Consistency check: entry w/o clientID
3127 Consistency check: key out of order
3130 DRCB already in use (dr_OpenOD)
3131 Insufficient Memory (dr_OpenOD)
3132 Invalid DRCB used in DR operation
3134 DR server could not be accessed
3135 Update agent unavailable; “updDisabled” or auditing
3138 Secondary index file not found (drErr)
3139 Bad secondary index file: too short (readKeyBlock)
3140 Bad secondary index file: (open1stFile)
3142 Bad secondary index file: attr len bad (unPackAttr)
3143 Bad secondary index file: bad packed entry (scUnPack)
3144 Bad secondary index file: file too short (unPackFilter)
3145 Bad secondary index file: entry too short (unPackFilter)
3146 Bad secondary index file: file too short (unPackFilter)
3147 Bad secondary index file: entry too big (unPackFilter)
3148 Bad secondary index file: file too short (unPackFilter)
3149 Bad secondary index file: bad entry format (unPackFilter)
3150 Bad secondary index file: missing list end (skipList)
3151 Bad secondary index file: wrong list end (skipList)
3152 Bad secondary index file: no list end (dr_ExpandMembers)
3153 Bad secondary index file: file too short (nextRef)

3154 Bad secondary index file: file too short (dr_References)
3159 Consistency: couldn't make key (processPattern)
3160 Consistency: couldn't make key (processPattern)
3161 Internal directory problem generating a marker (dr_GetMarker)
3164 Consistency: entry is/is not findable (dr_Tools)
3165 Invalid parameters passed (dr_PrimeNewDir)
3166 Consistency: entry is/is not referenced (dr_Tools)
3167 Consistency: entry is present twice (dr_Tools)
3168 Consistency: entry is/is not in a list (dr_Tools)
3170 Language unknown (dr_SetCompParms)
3172 Bad pattern: bad use of "?" (processPattern)
3173 DRCB locked or in use by another task
3174 Maximum cost advice exceeded: pattern too loose?
3175 Entry already in list (dr_AddMember)
3176 Bad call sequence: no scan active (dr_NextEntry)
3177 Bad call sequence: no scan active (dr_PrevEntry)
3178 Bad call sequence: no scan active (dr_LastEntry)
3179 Bad call sequence: no ref scan (dr_NextReferrer)
3180 Invalid data in an entry during add or change
3181 Marker is inconsistent with the pattern (dr_ContScan)
3182 ClientID supplied is already in use
3183 Entry not found (entryFind, entryTrot)
3184 Member not found (listTrot)
3185 No next file, reached end of dir (delList)
3186 Entry not found in dr_DelEntry
3187 Entry not found in dr_ChgEntry
3188 List entry not found in dr_AddMember, dr_DelMember
3189 Member entry not found in dr_AddMember
3190 Entry not found in dr_References
3191 List entry not found in dr_ExpandMembers
3192 Bad entry type: not a list (dr_ExpandMembers, etc)
3193 Bad entry type: list/non-list (rChgEntry)
3194 Invalid scan state for generating a marker (dr_GetMarker)
3195 Attempt to update entry without locking (scan)
3196 Entry already locked (tLock)
3197 Entry not yet locked by you (tUnLock)
3198 Cannot lock: too many entries locked (tLock)

3199	Unimplemented feature used

32—Message Transfer Agent (MTA)

3203 Operational measurement statistics not complete
3204 Unimplemented operation
3205 Unimplemented function
3206 Cancelled message is not in deferred delivery queue (DDQ)
3207 Invalid message ID
3208 MTA task not accepting messages
3209 mtProcs had a tasking error with MTA program
3210 MTA delivered a message late
3213 Fails to access user profile
3250 MTA task not found
3251 Restart operation failed; MTA will shut down
3260 Problem in generating NDN msg
3261 Error in record structure
3262 Cannot get MTA cabinet counts
3265 Cannot deliver to system address types
3266 Recipient is off node
3268 Copy table overflow; some recipients will not receive message; NDN generated for such recipients
3269 List table overflow; list won't become expanded
3270 CSL error occurred
3272 Reported error prevented message delivery to one or more recipients
3273 Could not gain access to an MTA cabinet; mail delivery from this volume is blocked
3274 Failed to set MWI or notify a voice messaging session of new message
3275 Delivery task went away and MTA has chosen not to restart it
3276 One or more of the specified volumes is already registered with another MTA
3277 System volume is not yet online
3278 Problem in accessing the deferred queue and the queue will be rebuilt
3279 Could not open the OrgDir; a delivery task may shut down;
3280 message format conversion error
3281 DD/CM error occurs in file/cabinet operation
3282 User profile is not consistent with organization directory
3285 Bad argstring
3286 Attempt to allocate MTA heap failed
3287 Registration of MTA program failed
3288 All delivery tasks have died or failed to start

3289	Reported error prevents MTA from starting
3290	Cannot build the deferred queue

33—Operational Measurements (OM)

3311 Task error occurred
3312 OM server not running
3317 Failure in storing OM data
3321 Failed to delete file
3331 Cannot access organization profile
3332 Cannot poll server
3333 Data not written to disk
3338 Failed to register the server
3341 PRM failed to start OM_COLLECT
3360 OM_COLLECT normally completed
3362 OM_COLLECT problem
3366 General OM_SERVER message
3367 General OM_SERVER error
3369 General OM_Server error
3375 Error adding billing or traffic records
3391 Voice service failed to locate OM_SERVER
3393 Voice menu service failed to locate OM_SERVER
3394 Error in file download

34—Voice Channel Allocator (VCA)

3440 Internal sanity check on hash table failed
3441 VSS tried to release a resource it did not own
3442 VCA control block passed in by the client was invalid
3443 Internal Sanity check failed
3444 Operation not supported on this platform
3445 Information message
3446 A timeout occurred during VCA recovery
3447 Variable out of range
3451 All VSSs that are available for the specified service are Out of Service
3452 Call collision during outcall; no impact
3453 Service does not exist and no general purpose VSSs are idle
3454 Service is datafilled but no VSSs of that service are available
3455 Could not read the hardware database at startup
3456 VSS is already in a call
3457 Device being searched for was not found
3458 VCA is abandoning recovery operation
3461 There was no memory at startup for the VCA
3464 Tasking error occurred
3465 Bad parameter passed in by client
3466 Unexpected event occurred
3467 User is already registered with the service specified to UserUpdate
3469 Maintenance has disabled all logins or system is not yet up
3471 Device was in an incorrect state for the requested operation
3475 There was no memory at startup for the VCA or there was some other initialization problem
3479 User is not registered in the VCA
3480 Restarting a VSS
3481 Failed to find port in table
3482 No timeslots found for maintenance routine
3483 OnError Entry for VA invoked
3486 Could not find port in internal table to release
3488 Problem cleaning up dying program
3490 Internal sanity check failed
3491 No available ports found
3492 Requested more than two ports
3493 Resources are not ready yet

3494	Unexpected device acquiring a timeslot
3495	Failed to PUSH OM or status PUSH to MMI
3496	VSS or VPH requested invalid event
3497	Error occurred during recovery
3499	Unexpected event occurred

35—SEER server (SS)

3500 SEER notice of event—not an error
3501 SEER file was not found in cabinet
3502 Indicates a DD error—file may be corrupted
3503 Error indexing a SEER
3504 Error recording a SEER
3505 SEER file is full—pointer must be reset to permit overwrite
3506 Date is outside of range of valid SEER dates
3507 Start date is later than the end date
3508 No records were found in the specified interval
3509 Difficulty communicating with the SEER server
3510 Tasking error encountered—retry send
3511 SEER crash—recovery was attempted
3512 Record not found
3513 Tasking error encountered, probably due to incorrect database or hardware.

36—Network Message Transfer Agent (NMTA)

3601 NMTA is not accepting messages
3602 Tasking error with NMTA
3603 Cannot locate NMTA task
3604 NMTA has run out of memory space
3605 Reported error prevents the NMTA from starting
3606 Invalid input parameter
3607 ATA has invoked nm_CallError
3608 Remote site has entered/existed from ERROR state
3609 Has or has not networking port
3621 Fail to access message cabinet
3622 Fail to submit to MTA
3623 Fail to send billing record to OM
3624 Do not commit file from MTA
3625 Communicate with VCA failed
3626 NM has encountered an internal logic error
3627 Fail to open Network Database
3628 Current connection failed
3631 No free networking data port
3632 Destination site is not in the network
3633 NMTA has a problem with NDN
3634 Message has been dropped by the NMTA
3640 Cannot find remote site info
3641 Received password is invalid
3643 Software release does not agree
3644 Function call not expected
3645 Received session header contains invalid site ID
3651 NMTA has run out of OTA control block
3652 OTA reports a particular session is disconnected
3653 System access number used for the outgoing session is invalid
3654 There is no associated outgoing OTA control block
3655 Outgoing AMIS session OTA control block is found not in use after the session has been started
3656 No messages found in the message queue after an outgoing AMIS session is started
3657 Network messages not compatible with the remote site
3658 Network cabinet has too many files

3669	Fails to get cabinet counters from the file system
3670	Networking database is not open
3671	Database is already open
3672	Site or location has not been defined
3673	Site is already defined
3674	Failed to associate location code
3675	Failed to disassociate location code
3677	Invalid mailbox number
3678	No more sites to list
3679	Fatal error, possible database corruption
3680	Networking not enabled in Organizational Profile
3682	Invalid data
3683	Location prefix underlaps an existing prefix
3684	Location prefix overlaps an existing prefix
3685	No location code found
3689	Location prefix matches an existing prefix
3690	No spoken name is present
3691	DN cannot be determined
3692	Specified context is undefined
3693	Database commit not carried out
3694	System access number (SAN) for an AMIS site cannot be dialed
3695	Invalid International Direct Distance Dialing (IDDD) Directory Number
3696	Network database is too large

37—Analog Transfer Agent (ATA)

3702 Cannot open dataport
3703 I/O error on modem dataport
3704 Received DD error on FID
3705 Unexpected end of record on FID
3706 Data link synchronization error
3707 Bad call progress received
3709 Cannot put modem on-hook at DN
3710 Failed to detect far end carrier at DN
3711 Modem will not answer add-on call at DN
3712 Cannot escape to modem command mode at DN
3713 No call progress received: callstate
3714 Cannot allocate buffers from VSS heap
3715 Modem fails to respond at DN
3716 Tasking error with the NMTA
3717 Cannot start datalink task
3718 Internal tasking error
3719 Tasking error while accessing software timer
3720 Failed to receive end of voice on FID
3721 Detected error in voice segment on FID
3722 VSS error: VSS code
3753 Call disconnect unexpectedly
3756 No answer from called party
3759 Message retry limit expired

38—Simplified Message Desk Interface (SMDI)

3800 SMDI program did not load
3801 Asynchronous error on send
3802 Synchronous error on send
3803 Counter was reset
3804 Link status down
3805 DN not logged in
3806 TN is not defined in the table
3807 Argstring not set
3808 Could not open hardware database
3809 Invalid DN on request to turn MWI on or off
3810 Blocked request to turn MWI on or off
3811 Bad packet format when processing packet
3812 SMDI buffer overflowed
3813 Error trying to enable interrupt
3814 DN is too long
3815 No buffer pool
3816 Error trying to register
3817 Error trying to dump the channel table
3818 Link status: up message
3819 Bad parameter passed or used
3820 Restarting link with more channels than originally having, will only use the Original amount
3821 Error in registering LH with VCM
3822 Error registering parent with VCM
3824 No channels found for the link
3825 SMDI channel table end boundary has passed the maximum channel limit
3826 Failed to inform the VCM of the link status change
3827 Could not locate the mirror/brother link
3828 Could not find link ID in the static table
3829 Boardtype does not support redundant links; no switching
3830 System type does not support redundant links; that is, standalone
3831 Port found not between 0–3 for boardtype

39—Hardware Database (HD)

3901 No match was found in the requested search

3902 Add request failed because a component in the hardware database with the same location code exists

3903 Modify or delete request failed because the specified record was not found

3904 HD has reached its storage limit, so the add request failed

3905 HD could not interpret the key fields passed in by an application or utility

3906 Modify or delete failed because the component was changed by another application or utility after this application, or utility last looked at the component's record

40—MMI Server (MS)

4000 MMI server failed to register with the PRM or SEER server program

4001 MMI program cannot communicate with the MMI server; the MMI server is probably not running

4002 MMI server cannot start some internal task

4003 MMI server could not read the hardware database

4005 MMI server could not read or write to bill control table

4006 Billing control file created successfully or billing control table audited successfully.

4008 MMI Server was killed and restarted because of an initialization failure.

41—Voice Channel Maintenance (VCM)

4120 The requested resource is unavailable. The requestor should try again.
4122 A new T1 Clock Reference is being selected
4129 Failed to load a DSP on PP
4130 Failed to run a DSP on PP
4131 Failed to test a DSP on PP
4132 Failed to reset a DSP to PP
4133 DSP was started too many times
4134 PP software not loaded
4135 Failed to load DSP on PP
4136 DSP does not exist CL5
4137 Internal DSP state is faulty or a fault is pending
4138 Problem doing ForceUnconfig
4139 DSP has bad status
4140 Device already online in maintenance command
4141 Invalid system status for operation
4143 Get status failed
4144 Maintenance operation failed
4146 Error in DevReport
4147 Too many T1 spans have been configured
4148 Could not find VSS node for device
4151 Device is not in standby mode. The requested operation is only allowed when the device is in standby mode.
4152 Device cannot be found in the device tables
4153 Maintenance command is not supported for the device.
4154 Maintenance command is pending new commands that cannot be accepted
4155 Cannot perform operation on hardware database
4156 Device is faulty, cannot be enabled
4157 Device is not configured.
4158 Unexpected report or reply received from client
4160 Function has not been implemented
4161 Not enough memory
4162 The VCM task could not be located.
4163 There were too many span switches, probable far end problem
4164 Tasking error occurred in the VCM
4165 Nil task id was passed unexpectedly
4166 An unexpected event occurred

4167	ProgInfo or TaskInfo was invoked
4168	Internal TNtoIndex routine failed
4169	Unexpected combination of status and command in MainteReply
4170	Command in Reply Routine does not match
4171	Device in an incorrect state for the operation being requested
4172	Device not registered, retry operation
4173	Request to start device task/program failed
4174	Some of the devices are not OOS
4175	VCM is dying due to a SEGALLOC or config problem
4176	Timer has not expired
4177	Parent program is not up yet
4178	Node is not up yet
4179	System is not up yet
4180	Span is not up yet
4181	No mte reply was expected
4182	Cannot talk to VSS
4183	Failed to find the CSL
4185	Error on WarmStart
4186	Error providing info for driver
4187	OnError entry invoked
4188	Error communicating with the PRM
4189	Error communicating with the VCA
4190	Could not put dev isOnline since partner was isOnline
4191	Link is not up
4192	Error in DevRegister
4193	Error in sanity device
4194	Error in need port on hardwired system
4195	Error in Mte Reply
4197	Information SEER
4198	Assertion VCM failed
4199	Debug statement

42—Open Access Transfer Agent (OTA)

4201 Error occurred in accessing or creating a message file

4202 Error occurred during transferring voice

4203 Tasking error occurred

4204 Error occurred during sending or receiving tone

4205 Error occurred during protocol exchange; one of the systems has not conformed with the AMIS protocol standard

4207 OTA could not locate NMTA

4208 Error occurred during accessing networking database file

4209 Could not find recipient in the message envelope

4210 Error occurred during reading recipient's information

4211 User entered a wrong system access number; the receiving system is busy

4212 Error occurred because of poor line quality while transmitting analog signal; one of the systems has not conformed with the AMISA protocol standard

4213 OTA failed to register

4214 Other system stopped while transmitting voice

4215 Other system detected an error while our system was transmitting voice

4216 Wrong number was entered during composition of an AMIS message

43—Forms Manager (FM)

4301 Problem occurred trying to communicate with the FM

4302 Problem occurred trying to access the required form information file

4308 Response cabinet still not found

4309 Problem adding a response to a response cabinet

4310 Response was being returned, after transcription, from a task which has not locked it for transcription

4311 Failed to remove response

4312 Failed to return a response after transcription or flagging for a new state (MakeSpecial)

4313 Indicated response file is corrupted

4314 Indicated response file could not be accessed

4315 Problem with startlist parms

4316 Operation was requested while the FM was in a transition state (restart); a temporary outage of service will occur during this period

4318 Form name, customer number or service id is not in the correct format, that is, the length is incorrect or it is non-numeric, excluding filler characters ("*")

4320 Version number problem with a definition file

4321 Indicates that a problem exists trying to access a form information file; fm_procs software will attempt to add a new FIF and retry the communication with the forms manager

4325 Failure to synchronize the voice form data after a recovery or certain expansions; a file, cabinet or service could not be accessed

4326 Status note from the forms manager (for example, Restart complete)

4327 Forms manager multiserver has failed to start or be restarted; another attempt will be made by the PRM

4328 Forms manager has failed to initialize the MWI for all voice form definitions

4329 Communication error occurred when a sub-task tried to communicate with the forms manager

4330 Problem occurred trying to initiate a system sub-task

4331 Form information file was found to be in an open (INUSE) state after all requests had been removed. The server will be terminated and restarted by the PRM

4332 Size of the record expected was not found

4333 Memory fragmentation or allocation problem has occurred with the memory provided to the FM

4334 Specified form definition is not in the DR

4335	During a request to add a response cabinet, it was found that the form definition had been taken out of service
4337	State of a response was found to be invalid on return from transcription
4338	Failure to synchronize the voice form data after a recovery or certain expansions: a file or cabinet was found to be corrupted
4339	The administrator has chosen to abort a call to fm_sync. This will prevent voice forms from being recovered fully during a restore procedure.
4340	Voice forms response could not be recorded because all disks were full or not available
4341	Service unit could not be assigned an index into the channel array; this could be due to the channel location being invalid or all of the indices may have been allocated

44—T1 Diagnostics (T1D)

4401 Argument string supplied for T1 diagnostics is incomplete.
4402 Invalid T1 diagnostic test number supplied.
4403 End address is larger that start address.
4404 Invalid type supplied.
4405 Span number is out of range
4406 Could not acquire timeslot to perform diagnostics.
4407 T1 diagnostics routine receive tasking error when attempting to communicate with another task
4408 Result from T1 68K register test.
4409 Result from T1 68K connection memory test.
4410 Result from T1 68K Dual Port RAM test.
4411 Result from T1 302 Dual Port RAM test.
4412 Result from T1 302 Dual Port RAM test.
4413 Result from T1 302 Self test.
4414 Result from T1 302 Register test.
4415 Result from T1 302 voice tap loopback test.
4416 Result from T1 302 Bus loopback test.
4417 Result from T1 302 Line interface loopback test.
4418 Result from T1 302 Relay loopback test.
4419 Result from T1 302 Signalling test.
4420 Result from T1 302 External loopback test.
4421 Result from T1 302 Span loopback test.
4422 Result from T1 302 Snake Loopback test.
4430 Could not release timeslots.
4431 Too many interrupts received from diagnostics firmware.
4432 Could not retrieve the diagnostic firmware file ID.
4433 Error trying to change span state to Diagnostics.
4434 Error loading diagnostics/call–processing firmware into span.
4435 Request to test invalid memory size.
4436 Memory test failure detected.
4437 Invalid register number provided.
4438 Invalid channel number provided.
4439 Could not acquire timeslot to perform diagnostics
4440 Attempt to find the T1 card memory failed.
4442 Failed to write time slot.
4443 Could not locate the call–processing firmware file.

4444 Could not load call–processing firmware.

45—T1 Loader (T1L)

4500 Cannot locate T1 Loader task.
4501 Error tasking with the T1 Loader.
4502 T1 Loader memory tests indicate that the DPRAM is faulty.
4503 Loader polling of Bootstrap timed out.
4504 BootStrap memory tests indicate that the 68302 SRAM is faulty.
4505 T1 Bootstrap detected checksum error in the T1 firmware s–record placed on DPRAM by T1 Loader.
4506 68302 Bus error detected by BootStrap.
4507 68302 interrupt detected by BootStrap.
4508 68302 addressing detected by BootStrap.
4509 Illegal instruction reported by 68302 Bootstrap.
4510 Invalid status received from Bootstrap.
4511 Unexpected status received from Bootstrap.
4512 Incorrect status2 received from bootstrap.
4513 Character in S–Record not is not a digit as expected.
4514 Cannot open file on disk to load span.
4515 Cannot find record 1 in S–record file on disk.
4516 Cannot read S–Record file on disk.
4517 File is not of expected S–Record format.
4518 Invalid span number received.
4519 A load request was made with the invalid Load type.
4520 Could not get bootstrap FID. File may not exits.
4521 Could not close open file.
4522 Loader request could not be performed with the span in its current state.
4523 T1 Loader could not register.
4524 Unable to allocate buffer to load T1 firmware.
4525 Bootstrap cannot interpret record placed on DPRAM.
4526 Timeout waiting for firmware to respond with span–awake information
4527 Expecting only one message (Span awake) from firmware, however more messages were received.
4528 Firmware indicate span–awake failure.
4529 Too many messages received from T1 firmware. Span is not loaded.
4530 Firmware report span fault.
4531 T1 debug port is already logged in. Logout first.

46—T1 COMM (T1C)

4600 Cannot locate T1 Comm Task.
4601 Error tasking with T1 Comm task
4602 Error mapping T1 card configuration space.
4603 Error mapping T1 card I/O space.
4604 Error mapping T1 card shared memory space.
4605 T1 voice tap stuck in reset state.
4606 Internal voice tap fault detected.
4607 Connection memory queue is full.
4608 Receive message queue is full.
4609 Receive message queue is corrupted
4610 Transmit message queue is full
4611 Span is not in an appropriate state for current request.
4612 Link Handler did not register with T1 comm task
4613 Parity error writing to connection memory.
4614 Access error writing to connection memory.
4615 TSW queue is corrupted.
4616 Transmit message size is invalid.
4617 Receive message size is invalid.
4618 TSW interrupt received but no interrupt pending bit is set.
4619 T1 interrupt received but no interrupt pending bit is set.
4620 T1 comm task could not register.
4621 Span DPRAM does not exist.
4622 TSW stuck in initialization.
4623 Fault in requesting timer.
4624 Connection memory queue timeout occur.
4625 Cannot locate T1 card configuration space.
4627 Message received from a span to which the Link Handler has not logged in.
4628 TSW fault interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.
4629 PLL interrupt received from a span to which the Link Handler has not logged in. Fault could not be registered.
4630 Error in performing Diagnostics timeslot requirement.
4631 68302 watchdog timeout.
4632 T1 Transmit queue is corrupted.
4633 Time switch audit routine detected mismatch in audit and actual memory
4634 No external references selected on this T1 card
4635 Previous external reference is overwritten by this selection

4636	The hardware register did not retain the external span selected
4637	Could not enable external referencing on card
4677	Error initiating T1 Comm task
4678	Error initiating T1 Loader task

47—T1 LInk Handler (T1LH)

4700 report T1 status change
4701 T1LH failed to startup the span
4702 unexpected loader state detected
4703 error in loading up the firmware
4704 error in reading firmware bin file
4705 failed to reset a trunk to the offline state
4706 loader fails to toggle the reset line
4707 failed to release all timeslots for the span
4708 report Operating status word changes
4710 error encountered when shutting down the channel
4711 Incoming call dropped
4712 Change T1 clock reference failed
4713 Get T1 clock reference failed
4717 channel command primitive timeout
4718 timeout in sending a message
4719 timeout when establishing an incoming call
4725 unknown message from the T1 firmware
4726 error in fetching messages from T1COM
4727 Dump the message sent by the firmware
4728 message routed incorrectly
4730 failed to register the T1LH with other task
4731 failed to communicate with other task
4735 unexpected event
4736 message rejected by the firmware
4737 Red/Yellow alarm detected
4738 software fault detected
4739 hardware fault detected
4740 no application has login to the channel
4741 invalid channel number
4742 fails to disconnect a call
4743 fails to execute a primitive
4744 error encountered during recovery
4745 error in setting up connection memory
4746 Voice Port fails to execute the desired command
4747 retry for outcalling failed

48—Diagnostic Control (DC)

4801 Cannot register the task ID in the name server

4802 Most likely the number of instances of the program has reached its limit

4803 A job was manually removed from the jobs list

4805 Memory for job storage has reached maximum capacity

4806 Diagnostic control cannot register with PRM

4807 A 68K card had been removed and is now being reinserted

4808 Abnormal sequence of node status information sent from PRM

4810 Problems with internal management of jobs

4821 Testdiag is reporting

4826 Memhog program is reporting

4831 Diskdog program is reporting

4841 Busbang program is reporting

4845 Debug information. Used only in the test engineering environment

4850 A diagnostic program has returned a result for which the pass count is less than the done count

50—Toolkit Master (TKM)

5001 Could not locate TC task, which should be present in locale 0 of TKM processor

5002 Synchronous task error occurred while communicating with the TC

5003 Synchronous task error occurred while communicating with the TC

5011 Task error occurred while sending a message to a TK task

5012 TK startup was refused by the TK task; probably resource management failure

5016 TKM ACCESS cable on wrong serial port; use port # = ’

5018 Upon recovery, the TKM could not locate the TC task on the node

5021 Message received was too short to be a valid request

5022 Received message that could not be interpreted

5024 Optional feature was not enabled

5031 Received notification of a disconnect

5091 Fatal error

51—Voice Toolkit (TK)

5101	Minor system error caused command to fail; MISA return code displayed
5104	Incoming call arrived for the IVR DN displayed, but no application is driving the channel
5105	A switchback has occurred from an unsupported service.
5106	A password violation occurred when attempting to log on to a mailbox.

52—Toolkit Communications (TC)

5201 TC could not deliver a data packet to the voice toolkit (TK)

5202 TC was unable to allocate all necessary message buffers at startup time.

5203 TKM ACCESS cable on wrong serial port. Use port # = ’

53—Voice Processor Diagnostics (VPD)

5300	General information worthy of being noted, such as voice processor diagnostics started, restarting or destroying tasks, and buffer allocation problem
5301	VPD program start request failed
5302	VPD program failed its initialization process.
5303	DSP under test failed diagnostics
5304	VPD program failed to start a DSP diagnostic task or received bad task result
5305	VPD program failed to talk to VOM_PP on that node, or VOM_PP rejected diagnostics
5306	DSP under test had time slot allocation problems during voice bus loop back test
5307	DSP under test had to wait an extra delay cycle for the DSP marching test
5308	DSP under test had time slot allocation problems during linear to PCM voice bus loop back test
5309	DSP under test had host interrupt pending even after attempting to clear it
5310	VOM_PP failed to raise interrupt event for the DSP under test
5311	Card type found by DSP test was different than the card type passed to the diagnostic
5312	Line test for the VP card detected a line problem

54—Utility Card (NT6P03 / NT6P42) Diagnostics (RBD)

5400 General information from RBD. Information such as diagnostics started, complete, setup

5401 JAM register test failed

5402 Could not MAP memory on the RB card

5403 Realtime clock is setup for binary format; however, data in register is not in binary format

5404 Data in realtime clock register is not in the expected range

5405 Accuracy of the RTC time is not within ±1 second of the expected value

5406 Read/write test failed on realtime clock register

5407 Attempt to register RBD_OVL locally failed

5408 Attempt to startup RBD_OVL failed

5409 Unable to locate RBD_OVL

5410 Unable to locate the specified memory on the RB card

5411 Unable to locate the realtime clock on the RB board

5412 Test for different memory block failed

5413 Disable polling test failed

5414 Enable polling test failed

5415 Incremental memory test on polling RAM failed

5416 Walk memory test failed on polling RAM

5417 Read/write memory test failed on polling RAM.

5418 Incremental memory test failed on realtime clock RAM

5419 Walking memory test failed on realtime clock RAM

5420 Read/write memory test failed on RTC RAM

5421 Error opening file to test the specified port

5422 Serial port Local LoopBack test failed

5423 Invalid argument string passed into program

5424 Maximum poll latch failed read/write memory test

5425 Alarm register failed

5426 Modem diagnosics failed

5427 Error opening file for port testing

5428 Error accquiring buffer for RB diagnostics

5429 Error communicating with RBD_OVL

55—Voice Service Administration (VSA) Conversion Utilities

5501 Current time not available
5502 Conversion completed.
5503 Unable to close the Cabinet.
5504 Unable to close the VSDN file.
5505 Unable to unlink FCB
5506 Unable to close DR.
5507 Unable to get the FID for cabinet.
5508 Unable to open cabinet.
5509 Unable to find the VSDN file in cust cabinet.
5510 Unable to obtain the FIR
5511 Unable to open the VSDN file.
5512 DD_FindRec operation failed.
5513 No DN record exists in the VSDN file.
5514 Unable to delete the VSDN file.
5515 Unable to move the VSDN file to the garbage cabinet.
5516 DD_GetRecDesc operation failed
5517 Unable to read DN from the VSDN file.
5518 Unable to read the ServId Record for DN.
5519 The number of DN and ServId entries are not equal.
5520 Unable to open the DR
5521 DR_FindEntry operation failed.
5522 Unable to add DN to the DR Entry.
5523 Unable to link FCB.
5524 Number of DN fail to convert.
5525 Conversion is partially done
5526 Conversion Failed
5527 The VSDN file is moved to the garbage cabinet
5528 Number of DN or ServId to be converted.
5529 The VSDN file is successfully deleted.
5530 Dn already exists in the DR Entry.
5531 Converting DN into the DR VSDN Entry
5532 DN successfully converted into DR VSDN Entry.
5533 Information contained in the VSDN is incorrect. The number of digits in the VSDN entry is either less than the local DN length or greater than system DN length.

5534	The sum of the length of the NPA supplied and the length of the VSDN itself is less than the system DN length so there is not enough information to fill the Expansion Digits field.
5535	The mailbox ID is too long. Either the mailbox ID itself or the mailbox ID together with the NPA is longer than the system DN length.
5536	System DN length has not been defined.
5537	Local DN lengths have not been defined for the customer OR they are greater than System DN length.
5538	Unable to close a profile. This occurred when trying to close a customer or system profile and may indicate a possible corrupted profile.
5539	dr_NextEntry operation failed. Possible System Error.
5540	Unable to add a Cabinet.
5541	The Service ID is Invalid
5542	DD_Create operation failed.
5543	Unable to add the Service ID File
5544	Unable to open the Organization Directory.
5545	DD_Read operation failed.
5546	DD_QuickInfo operation failed
5547	DD_CrtRec operation failed.
5548	DD_AddFile operation failed.
5549	DD_Write operation failed.
5550	DD_CopyRec operation failed.
5551	cm_UpdtFile operation failed.
5552	Unable to read the System Profile.
5553	Unable to read the Customer Profile.
5554	Unable to read the Admin Language Record.
5555	Unable to read the Admin Login Record.
5556	Unable to move the MM8 Voice Service Cabinet.
5557	Unable to read the Voice Services Profile.
5558	The FIR for the Voice Service File is invalid.
5559	Unable to obtain the FIR for the Cabinet.
5560	Unable to obtain the FID for the Cabinet.
5561	Unable to remove the MM7 Voice Service Cabinet.
5562	Unable to open the Voice Service File.
5563	Unable to find the specified record in the file.
5564	Unable to obtain FIR for the Voice Service File.
5565	Unable to obtain FID for the Voice Service File.
5566	Unable to add the DR entry.

5567	Unable to open the specified cabinet.
5568	Unable to open the specified cabinet.
5570	Unable to change the VSDN table entries.
5571	Unable to fix the Voice Service definitions.

56—Centralized Call Answering (CCA)

5601 Playing problem
5604 Record problem
5613 Login problem
5614 Greeting problem
5621 Change password problem
5625 Creating a message
5626 Adding a message
5627 Opening a message
5628 Updating a message
5629 Altering a message
5630 Closing a message
5631 Deleting a message
5632 Initial resources not available
5633 Could not clean up resources
5634 Failed to turn on message waiting indicator
5635 Entry called out of synchronization
5636 Call answering problems
5637 Code does not handle a particular case
5638 No additional information is available
5651 Extension dialling request failed
5653 Unable to get sent digit
5659 No memory is available to perform a function
5661 Data is corrupted or inconsistent on disk

58—Voiceless Server (VLS)

5801 Designer Information

5802 Unable to open DR, the system profile, the customer profile, or the network database

5803 Unable to allocate heap or buffers

5804 The VLS could not register, or is terminating

5805 Not enough buffers to send VLS API results to the ACCESS Toolkit Communications Task (TC)

5806 VLS API results cannot be sent to the TC because the TC cannot be located

5807 VLS unable to access the customer profile or the network database

5808 Verify Password API failed to open/close the user's personal profile, or open/close the user's cabinet

5809 Error in trying to execute m_QueryMailbox or m_GetMBoxStat API

5810 Error in trying to execute m_GetMessageList or m_GetMessageUpdates API

5811 Error in trying to execute m_SetMessageCounter API

5812 Error in trying to execute m_QueryMsg API

5813 VLS could not retrieve the serial number

5814 Error in trying to execute m_SetMBoxEHNId API

5815 Password violation attempting to verify password

5816 Error executing the m_LocalToNetwork API

59—Tape Driver (TP)

5900 Tape drive reports exception during access

5901 SCSI device driver reports an exception during tape access

60—Program Resource Manager (PRM)

6001 Unexpected state was encountered
6002 Error in the Startlist
6003 Program cannot locate the PRM by name server
6004 Tasking error from the kernel
6005 PRM could not register its name with the name server
6006 Program could not be found in PRM table
6007 Control request received by PRM is not implemented
6009 An invalid command received by PRM
6011 Too many programs in the PRM table or too many retries
6012 String is too long
6013 Overlay failed to be loaded on a node
6014 Node problem, node not found, or node is not healthy
6015 Program could not be loaded
6017 Auditing information
6018 No base directory in the startlist
6019 Node request is out of range
6020 Problem downloading operating system to other nodes: incorrect message
6021 Problem downloading programs to other nodes: incorrect packet count
6022 Problem downloading programs to other nodes: transmission error
6023 Bootrom of node failed to respond to PRM within time period
6024 Maximum number of bootrom retries
6025 Error starting diagnostic programs
6026 Diagnostic program finished with an unknown result
6027 Diagnostic program failed
6028 Report diagnostic status
6030 Auditor killed the program, or the watchdog killed the PRM
6031 Bad task result in sending audit commands to tasks or PRM
6032 Audit table is full
6033 Unknown audit result received from task or PRM
6035 Problem in opening hardware database
6036 Problem in closing hardware database
6037 Problem in reading, finding or opening hardware database
6038 Report of node information obtained from hardware database
6040 Problem in opening organization profile
6042 Problem in reading information from or closing organization profile
6043 Report of PRM action going to be taken

6045	PRM cannot send node update information to various programs
6046	Node in the Startlist is marked unconfigured in the hardware database
6050	Task error in sending program information
6051	Not able to start loader task, tasking error
6052	Send error during loading
6055	Unknown virtual node ID
6056	Error in spinning disk
6057	Tasking error in the SEND command
6058	Lost polling from node, or PRM received shutdown command
6060	Buffer error during rendezvous
6061	Other error not caused by buffer shortage during rendezvous
6065	Node reset command is rejected, system in switchover diagnostics
6075	Switchover disallowed because it is not set up properly
6076	Switchover failed, failed to take bus controller
6098	Debugging information
6099	General PRM information: any useful user/state information

61—Maintenance Administrator (MA)

6101 Incompatible parent or sibling component in hardware database: requested component not added

6102 Invalid state for requested operation

6103 Error in propagating operation to child entities in the hardware database: entity not changed

6104 Failure of an online or offline test

6105 Operation rejected due to offline test in progress on this node

6106 Operation is invalid or not supported

6107 Operation would cause hardware database to become corrupted

6108 Operation succeeded on entity requested, but failed to propagate to child entities

6109 Offline test was started but result is unknown

6110 Location code passed to MA is not valid

6111 Attempt was made to change keys on an ma_Modify

6112 Offline test was requested for a voice card which does not contain any DSPs in the correct state or there are no DSPs on the VP at all

6113 Both DSPs on the VP failed the offline test

6114 First DSP on the VP failed the offline test

6115 Second DSP on the VP failed the offline test

6117 Offline test was requested on a T1 card with T1 links in the correct state

6118 Offline test failed on all T1 links tested

6119 At least one hardware fault was detected on T1 card tested

6120 T1 offline test not completed because of cause specified in SEERs

6122 Waiting for previous request on component to be completed

6123 Waiting for node to be loaded

6124 Node could not be loaded

6125 Node in an unexpected state

6126 No modem on SBC card to be tested

6127 Hardware fault is detected on SBC card

6130 MA/VM II communication problem

6131 Hardware fault(s) detected on the utility card

6133 No voice ports found on node

6197 MA tasking problem

6198 PRM could not start program

6199 Time–out waiting for diagnostic result

62—Test Serial (TS)

6200 General TestSerial information

6201 I/O error occurred when writing to the file open against the transmit port

6202 I/O error occurred when reading from the file open against the receive port

6203 Diagnostics failed on the specified port

6204 TestSerial requires the “Rst_Modem” overlay for successful execution. The attempt to locate this task has failed

6205 I/O error occurred when opening a file to transmit data

6206 I/O error occurred when opening a file to receive data

6207 One of the ports requested to test is used for SEER printing

6208 One or both port names are blank (”)

6209 Could not open, read, or close the system OrgProfile file

6210 Argument string received by this program does not have a diagnostics ID

6211 Argument string received by this program does not have a “SEER flag”

6212 Argument string received by this program is not of the expected format

63—RS-232 Service Module (RSM)

6300 A fatal error occurred in the RSM operation. The RSM card may be out of position or it is defective

6301 The RSM clock returned INVALID TIME to user

6302 The RSM clock has been reset. Reset time difference is given out in seconds

6303 Nil time stamp returned to user because system ran out of buffers

6304 RSM major alarm turned on by the RSM software

6305 RSM minor alarm turned on by the RSM software

64 – Operating System Program (OSP)

6401 The specified MSP node has lost physical detection of the Bus Controller card on the other MSP node. Applicable only on MSM systems.

6402 The specified MSP node can detect the Bus Controller card on the other MSP node. Applicable only on MSM systems.

6407 Firmware release on the Bus Controller card is incompatible with current release of the software. Applicable only on MSM systems.

6410 Error occurred in sending status update information to other programs (VCM). Applicable only on MSM systems.

6411 Attempt to enable MSP switchovers failed because the backup MSP could not detect the Bus Controller card on the active MSP Applicable only on MSM systems..

6412 Active Bus Controller is switching to Internal BC Timing Mode. Applicable only on MSM systems.

6413 Active Bus Controller has been successfully synced into External T1 clocking source. Applicable only on MSM systems.

6414 Active Bus Controller has been successfully synced into External T1 clocking source for long enough period of time that, if the problem in External T1 source occurs, the Bus Controller will go to Holdover Mode rather that revert to its own Internal BC Timing. Applicable only on MSM systems.

6415 Some problem has occurred in communication between the Bus Controller card and the OS software. Applicable only on MSM systems.

6417 Active Bus Controller going to Holdover Mode because it can no longer track the External T1 clock source. Applicable only on MSM systems.

6418 Backup Bus Controller going to Holdover Mode because it can no longer track the active Bus Controller. Applicable only on MSM systems.

6419 Active or backup Bus Controller is having problems tracking the clock source it should be tracking., but is still able to do it. Applicable only on MSM systems.

6498 General debug information useful only to system designers.

6499 General system information.

65—Debugger (DB)

6502 Improper memory area was accessed by software, causing ESBC sanity timer to become activated

6599 Debugger traceback output. The number followed by the word DBGTRACE identifies the trace sequence number

66—Disk Manager (DM)

6600 Start of disk sync
6601 End of disk sync
6602 Disk going offline
6603 Disk error during file system access
6604 Driver error during file system access
6605 Disk error during disk manager access
6606 Driver error during disk manager access
6607 Disk missing
6608 Cannot determine which disk is more current
6609 Disk offline
6610 Partner node fails to bring disk online
6611 Disk offline reminder
6650 Disk sync failure

67—SCSI Driver Utilities (SD_Tools)

6700 Out of memory
6701 Cannot talk to dm on home node
6702 Cannot talk to dm on partner node
6710 Cannot determine amount to sync
6711 Cannot initialize destination disk
6712 Cannot enter sync mode
6713 Sync primitive failure
6714 Cannot leave sync mode
6715 Cannot determine amount to sync
6716 Cannot initialize first disk in pair
6717 Cannot initialize second disk in pair
6718 Cannot leave sync mode
6720 Invalid request
6721 Cannot update surviving disk
6722 Cannot take unshadowed disk down
6730 Invalid request
6731 Invalid request
6732 No disk detected
6733 Cannot spin up
6734 Cannot determine size
6740 Out of memory
6741 Compare primitive failure
6742 Mismatch
6750 Format failure
6751 Cannot stamp disk
6760 Cannot read mi control block
6761 Cannot initialize mi control block
6762 Cannot configure mi maximum size
6763 Cannot move volume up
6764 Cannot move volume down
6765 Cannot add volume to mi control block

68 – David ESDI Emulation Handler (DEEH)

6800 An invalid command was received from the Meridian 1 that is not supported by Meridian Mail.

6801 The AML task did not pick up an AML message in time for proper execution.

6802 The receiving queue for messages from Meridian 1 is full.

6803 An unknown packet was received from the Meridian 1 that is not supported by Meridian Mail.

6805 The AML task is ready to start operation.

6806 The AML link is not established.

6807 Meridian 1 is not accepting Meridian Mail AML packet transmissions.

69—BootROM Diagnostics Utility (BRD)

6900 Bootrom diagnostics ha**ve** been started on the specified node

6901 Options specified are not correct

6902 Invalid node number specified

6903 Diagnostics can be executed only when the node is in the standby state. This node is not in standby.

6904 This operation can be performed only when the node is in the standby state. This node is not in standby.

6905 The requested diagnostics failed

6906 This node is already down

6907 A tasking error has occurred

6908 The PRM reported an error when attempting to start diagnostics

6809 This program could not register with the name server

70—Hospitality Administration Server (HAS)

7001 Error was detected while the hospitality software was initializing

7002 Received a command from the PRM task indicating that HAS should kill itself or shut down

7003 Internal queue used to store commands from the PMS is full

7004 HAS failed to allocate its memory segment

7005 HAS could not get the required information from the customer profile

7006 Failed to open the networking database

7007 HAS is trying to register that it is running with name server

7008 HAS succeeded in its attempt to start

7009 Some type of tasking error has occurred

7010 Hospitality feature has not been enabled on the system

7011 Hospitality customer profile could not be accessed; probably not installed

7012 Tasking error occurred while trying to send to HAS command subtask

7013 If the Resync mode is turned on, then once an hour this SEER will be repeated as a reminder

7014 The DN is not a primary DN

7020 Error was encountered while a task was trying to access HAS

7030 Room check in command is being processed and an error has been encountered

7031 Room checkout command is being processed and an error has been encountered

7032 Room name change command is being processed and an error has been encountered

7035 HAS lost some HEAP memory

7036 Room re-checkin command is being processed and an error has been encountered

7037 Copy Mailbox Command is being processed and an error has been encountered

7038 Copy Mailbox Messages command is being processed and an error has been encountered

7039 Turn MWI On command is being processed and an error has been encountered

7040 Turn MWI Off command is being processed and an error has been encountered

7041 HAS is in the process of shutting down in a controlled manner

7042 Query Voice Counts command is being processed and an error has been encountered

7043	Invalid command was given to the HAS to execute
7044	HAS failed to allocate its memory segment
7045	File was searched for and not found
7046	Attempt to create a file failed
7047	Attempt was made to write to an internal file, the write failed
7048	Attempt was made to commit an internal file, the commit failed
7049	Attempt was made to add a new file to a cabinet, the operation failed
7050	Attempt was made to close an open cabinet, the operation failed
7051	Attempt was made to open a cabinet, the operation failed
7053	Search of the DR database failed
7054	Search of the DR database failed
7055	Attempt was made to read from an internal file, the read failed.
7056	Attempt was made to access the HAS recovery file
7059	Error encountered while processing a language change program
7060	Alarm could not be raised on the Front Desk Console alertline
7061	Attempt to convert a mailbox number to a networking address failed
7062	Failed to do a Send of information to the Meridian 1
7063	Multimatch was found when the HAS did a lookup in the corporate database
7064	Internal limit of the hash table has been reached
7070	Read Audit is running and an error has been encountered
7071	UnRead Audit is running and an error has been encountered
7072	Failed to open a personal cabinet in a post–checkout cabinet
7073	Failed to tidy a personal cabinet in post–checkout
7074	Failed to remove a personal cabinet in post–checkout
7080	Tried to find a FID for a PCOCAB given a volume ID
7081	Could not access the MHVS directory or could not find a MHVS directory on the System volume
7082	Could not open the PCORLIST file. It exists but for some reason could not be accessed
7083	Tried to read the PCORLIST and failed
7084	Attempted to do a pattern matching scan on a file, the scan returned a bad result
7085	Failed to create a record for the specified file
7086	Attempt to update the corporate directory database (read DR) failed
7090	Attempt to open the corporate Directory (DR) failed
7091	Internal table look up was attempted, a match was expected but not found using the sorted lookup, a linear lookup is being attempted.

7092	HAS checking for an existing DRQ file at startup
7093	Problem encountered while attempting to process a Corporate Directory (DR) update
7094	HAS will scan the Post Check Out mailboxes for obsolete ones if there is not PCORLIST on startup
7095	PCO task cannot update the PCORLIST
7096	While creating a PCORLIST an error was encountered
7097	Conversion of a hospitality system to MM9 is failing
7099	Failed to get the OM Data at has_driver for debugging

71—PMS Link Handler (PLH)

7101 Critical error was encountered during initialization

7102 PLH can't receive from or transmit to the PMS or Meridian 1

7103 PLH can't transmit to the PMS or Meridian 1

7104 Communication is restored on the side specified in the SEER text

7105 Diagnostic message; indicates that the PLH can now receive from the PMS or Meridian 1

7120 Receive queue is full; probably missing ETX

7122 Tasking errors detected

7123 PLH isn't running

7125 RSM isn't there

7128 A SEND to the HAS failed or the HAS task cannot be located

7129 Bad command code from the HAS

7130 Failed to set the bypass switch

7132 Failed to raise an alarm on the guest administration console (GAC)

7134 Too many consecutive NAKS finally resulted in substitution of an ACK

7140 No ETX received, buffer full

7141 STX was received before an ETX, message discarded

7143 Timeout between PMS and MM will adjust timers

7198 Software error

7199 Link handler shutting down

72—Front Desk Console (FD)

7220 Diagnostic information SEER.

7221 Non–critical bug occurred

7224 Tasking error occurred.

7225 GAC failed to register with the Name Server on start up

7226 FD_Server Task failed to initiate.

7227 PRM is not available

7228 FD_Procs failed to locate a GAC program.

7230 Communication problems with HAS

7231 Communication problems with HAS or HAS PCO (post–checkout) list

7232 Communication problems with PLH

7233 Communication problems with the cabinet manager

7234 Timed out trying to retrieve GAC OM information

7235 Startlist parameters for the GAC are incorrect

7236 Startlist parameters for the GAC are incorrect

7237 Heap was lost

7238 Error while attempting to run tool to checkout all guests

7239 Error has occurred attempting to open the customer profile to access the customer hospitality greetings

7240 Error occurred changing the access mode of a profile

80—IS_NAMES

8000 is_name server full

8001 is failed locate

81—Fax Handler (FH) codes

8100 No memory available to perform function
8102 Command that violates the protocol was received
8103 Value of one or more parameters are out of range
8110 Fax segment is not open
8111 Empty fax segment was encountered
8112 Fax operation was attempted on a non fax/FASCII segment
8113 DSP reports a bad page was received
8114 Bad fax segment was found
8116 Bad session ID
8130 Requested page could not be found
8141 VH timed out on a fax operation
8143 Bad fax block was found
8150 End of segment reached
8151 End of page reached
8152 Page limit exceeded
8155 Remote fax machine ID string received
8156 Session is being ended
8160 VCB does not exist
8161 VH is in the wrong state for the requested operation
8162 FCB is already linked
8163 FCB is still in use and cannot be unlinked
8164 Bad state for update of trimtab information
8165 Receive attempted in non–idle state
8166 Session is already open
8167 DSP reports a bad session
8168 Timed out waiting for a response from fax machine. Can happen on transmit or receive
8169 For receive only. The DSP has timed–out waiting for a response from the far end
8170 Carrier did not drop
8171 Invalid T30 command detected
8172 Unexpected DCN message from far end
8173 Poor line quality or condition
8174 No response from the far end machine
8175 Incompatible far end fax machine
8176 Block under WatchDog timeout
8177 Retransmit WatchDog timeout

8178	VPH aborted the session
8190	Tasking communication error has occurred

82—Fax ASCII Translation (FX)

8202 The amount of data read did not match the amount expected

8203 Version number of the font file does not match the version expected by this software release

8217 Insufficient memory was provided to allocate the needed data structure

8218 Internal consistency check failed

83—Fax Item Maintenance Service (FIM)

8301 Problem occurred during the playing of a prompt
8302 Problem occurred during the recording of voice
8303 Problem occurred while disconnecting the call
8304 Initial resources are not available
8305 Code to handle this situation is not implemented
8306 Invalid longon was attempted
8307 Error occurred during a file system operation
8308 Unexpected event has occurred in the lower layers
8310 Error occurred cleaning up old fax item definitions
8311 Fax or confirmation prompt, or both have been changed
8312 Error occurred reading a profile
8313 Service has been informed to shut down for online upgrade
8314 Failure occurred attempting to modify the update password
8315 Maximum allowable attempts to update the password has been exceeded
8316 Fax Item's update password has been changed
8317 Volume on which the fax items are stored is greater than 95% full; service will not continue
8318 Error occurred during reception of the fax
8319 Error occurred during the creation of the cover page
8320 Premature disconnect was received during fax reception
8321 Attempted DR operation failed
8322 Error occurred trying to send a verification
8323 Error was returned from the fax handler layer
8324 Operation on a voice segment resulted in an error
8325 Maximum number of pages per fax reception has been exceeded
8326 Number of bytes read does not match the expected record size
8327 Fax item definition's version number is inconsistent with this version of the software
8328 Error occurred trying to update the system to reference the new fax item
8329 Problem occurred obtaining the system prompt file
8330 Problem occurred obtaining the service prompt file
8331 Error occurred attempting to create the fax batch to send the verification
8332 Error in the fax protocol occurred
8333 Far end fax machine is incompatible with Meridian Mail
8334 Attempt to allocate memory on startup has failed
8335 Attempt to play a prompt was made when the prompt files were not open
8336 A bad page was received during fax reception

8399 Internal error

84—Multimedia Outcalling Agent (MCA)

8404 Fax message cannot be read because it is a message with a version number that is greater than the version allowed for this release of software

8408 Software has encountered an unexpected problem

85—Fax Printing (FP)

8504 Volume that is requested is not being serviced by this OCS or is not currently accessible

8505 Trying to send a message that is not a fax

8506 Failed to read fax or spool cabinet file information

8507 Version of fax is invalid

90—Outcalling Server (OCS) codes

9001	Request type not configured for system
9002	Request type not part of this software release
9003	Error opening a user's personal profile or a voice service profile; user or voice service not found
9005	Failed to commit or write audit file
9008	OCS not found on system
9009	OCS was given an invalid time
9015	Problem occurred with OCS's scheduling array
9021	Internal state problem occurred
9022	Bad return code received from a request-formation routine (RN, DNU, or FP)
9025	Requested service has not been implemented or is not in service
9029	Request invalid or cannot be serviced due to lack of channels with the correct capabilities

91—Message Waiting Indicator (MWI) Audit

9101 MWI audit task cannot register to the name server

9102 There is a problem trying to obtain information from a particular user

9103 One of several failures in preparing for an audit

9104 Time for a regular MWI audit.

9105 MWI audit either has checked through all users or there was a problem

9106 Other task has triggered a MWI audit.

9107 Other task has requested the MWI audit task to stop auditing

9108 Audit received a bad time

9109 Stale cabinet

92—Delivery to Non-users (DNU)

9204 Volume requested is not in the OCS set or is not accessible.

9205 Trying to send a message that is not a DNU message.

9206 Failed to read a DNU message or DNU cabinet file information record

9207 Message version is invalid

9209 Internal DNU error.

93—Remote Notification (RN)

9302 Volume requested not in STARTLIST parameter set for OCS

9307 RN recovery task problems

94—Admin Server (AS)

9401 Problems with the allocation of buffer spaces in the program
9402 Program registration failure or a explicit termination request from PRM
9404 Communication with the MMI server failed
9405 Failure to read system organization data
9406 A general or miscellaneous problem
9410 An admin server operation related to user administration has failed
9449 Communication with AMLH failed

100—System Operation (SYSOP)

10002 Error saving the DSP config record
10003 Failed to move voice service cabinet
10004 Attempted to add node without using a keycode
10005 Expected more VPs in the Linked List than found
10008 Error adding users during AutoConfigure
10012 Base SEER number for release conversion
10013 Failed to convert the hardware database
10014 Failed to convert personal profiles.
10015 Failed to convert system profile.
10016 Failed to convert Voice Services.
10017 Current software release is not allowed for conversion to MM9.
10018 Failed to save current DSP_CONFIG file.

101—User Interface (UI) [Man Machine Interface (MMI)]

10101 Attempt to add already existing mailbox
10102 No users exist that satisfy the specified view criteria
10110 Attempt to open new cab with old one(s) still open
10111 Write user not preceded by read user
10112 Delete user not preceded by read user
10113 Write organization profile not preceded by read organization profile
10116 Client ID of list entry does not exist

102—User Interface (UI) [Man Machine Interface (MMI)]

10200 Error committing voice file
10201 Unable to read Security file
10202 Failed to write Security file
10203 Invalid administrator logon attempt
10204 Administrator password changed
10205 Alarm silenced by administrator
10206 Failed to open the security file
10207 Failed to close the security file
10208 Failed to find the security file record
10209 Failed to get the security file FID
10215 Failed to open console printer
10216 Failed to create print buffer
10217 File in which MMI text is stored does not match MMI software
10232 Failed to initiate polling task
10233 MMI failed to communicate with the MMI Server program
10234 Console port speed utility failed to communicate with PRM_PROCS
10235 Unable to obtain console port speed information for a specified node
10240 Problem with MMI system, directory server, or volume server
10241 Problem with MMI system, directory server, or volume server
10242 Problem with MMI system, directory server, or volume server
10243 Problem with MMI system, directory server, or volume server
10244 Problem with MMI system, directory server, or volume server
10245 Problem with MMI system, directory server, or volume server
10246 Problem with MMI system, directory server, or volume server
10247 Problem with MMI system, directory server, or volume server
10248 Problem with MMI system, directory server, or volume server
10249 Problem with MMI system, directory server, or volume server
10250 Could not allocate storage
10251 Failed to open network database
10252 User pressed [Cancel]
10272 Failed to print OM files, such as traffic and voice menu
10273 Failed to obtain the traffic OM record
10275 Failed to view next SEER in SEER file
10278 MMI was unable to get the specified alarm status because of a communication problem
10280 Failed to allocate storage for organization operation

10281	Failed to obtain resources for organization operation
10282	Failed to read organization profile
10283	Failed to write organization profile
10284	Failed to restart OM server
10285	Failed to close all files
10286	Failed to restart or stop SEER printer
10287	Failed to check User Mailbox
10289	Failed to access the customer profile during customer administration
10290	Failed to view user; possible data corruption
10292	95% or 100% of mailbox limitation reached
10297	Failed to notify OCS of user or organizational changes
10298	Failed to modify/add dynamic personal or organizational records
10299	Failed to record personal verification

103—User Interface (UI) [Man Machine Interface (MMI)]

10300 Problem with MMI system, directory server, or volume server
10301 Problem with MMI system, directory server, or volume server
10302 Problem with MMI system, directory server, or volume server
10303 Problem with MMI system, directory server, or volume server
10304 Failed to allocate storage to modify list
10305 Reset occurred during an add, change, or deletion to a list; no change made
10306 Failed to validate mailbox for lists
10307 Failed to read list of mailboxes
10308 Failed to close all files in list operation
10309 Failed to obtain storage for list operation
10310 Failed to obtain resources for list operation
10311 Failed to add list
10312 Failed to delete list
10320 Failed to find hardware database
10321 Failed to open hardware database
10322 Failed to initiate ScreenTask
10330 Failed to find hardware record
10331 Failed to open hardware database
10332 No heap
10333 Failed to read hardware database
10334 Failed to update Cobra with the new port speed
10335 Failed to update the hardware database
10336 Node number out of range
10337 Invalid baudrate
10340 Could not obtain volume status information
10341 Backup failed
10342 Failed to initiate backup task
10343 UI Main: attempt to login from user admin terminal without feature enabled
10344 Back up attempted when one was already in progress
10350 Failed to retrieve audit trail records
10351 Incompatible version number for audit trail
10360 Failed to obtain resources for COS operation
10361 Failed to read the specified COS
10362 Failed to write the specified COS
10363 Failed to delete the specified COS
10399 Failed to register the MMI

104—Voice Menus, Announcements, Time-of-Day services, and Fax Information Service (VMU)

10402 Unable to disconnect to Meridian 1 operator
10403 Unable to properly disconnect the service
10404 Unable to initialize system and Voice Service prompt files
10405 Unable to play a prompt from the Voice Service prompt file
10406 Unable to call revert DN
10407 Unable to open the system or Voice Service prompt files
10408 Unable to switch to specified service
10409 Class of service file is unknown
10410 Voice service file version is not compatible
10411 Error reading the Voice Service file
10412 Voice recorded indicators are corrupt in the Voice Service file
10413 Unable to play voice in the service
10414 No greeting or choices were found in the Voice Service file
10415 Unable to place a call
10416 Unable to add to the service stack
10417 Unable to initiate the Voice Service task
10418 Unable to bind start and clean up procs.
10419 Unable to query VSS information
10420 Unable to perform close voice on VCB
10421 Unable to close Voice Service
10422 Menu was found instead of the expected announcement
10423 Announcement was found instead of the expected menu
10424 Unable to get a digit from the VSS
10425 Unknown menu action choice found; file corrupt
10426 Unknown or invalid action found; voice menu service corrupt
10427 Error code was given in the ”voice I/O event” entry
10428 Time-of-day service file version is not up-to-date
10429 Object file not found or problem reading the time-of-day file
10430 Cannot answer incoming call
10431 Cannot send peg counts to OM
10432 Unable to open system file
10433 Unable to convert the service ID and customer number to a search pattern
10434 The Service Application was asked to terminate because the online update is about to begin

10435	A Voice Menu Service was found instead of the expected Fax Information Service
10436	An Announcement was found instead of the expected Fax Information Service
10437	A Fax Information Service was found instead of the expected Voice Menu Service
10438	A Fax Information Service was found instead of the expected Announcement
10439	There was a problem in starting a fax transmission
10440	The sponsor fax item could not be added to the list of fax items because of incorrect id, not a fax item or no image
10441	The batch fax callback delivery has detected an error
10442	The service could not find the service id entered
10443	The sponsor service id in the session profile is not a fax item
10444	The fax item does not have a faxed-in faxed image
10445	Fax batching (that is, creating and collecting all the faxes selected) detected an error
10446	The session profile was not configured correctly to handle fax selection

105—Voice Service Administration (VSA)

10501 Unable to set up a data menu
10502 Unable to delete a Voice Service file
10503 Unable to validate a Voice Service file ID
10504 Unable to translate a customer number
10505 Unable to determine the correct VSH service type
10506 Unable to print Voice Service data
10507 Form or menu requires more memory than in the CLI heap
10508 Unable to read system/customer profiles on startup
10509 Failed to communicate with the MMI server
10510 Info only; service definition of VSDN entry has been added, modified, or deleted
10511 Unable to read the hardware database
10512 Unable to read time-of-day file
10513 Unable to write time-of-day file
10516 Unable to read the session profile detail file associated with a VSDN
10517 Unable to write the session profile detail file when trying to save a VSDN entry
10522 Unable to write Voice Service profile
10531 When trying to create voice, record was found to be missing
10532 Unable to read, create, or set up an announcement service file
10533 Unable to write announcement service file
10534 Unable to read, create, or set up a Fax Information Service file
10535 Unable to write a Fax Information Service file
10541 Unable to read, create, or setup a through-dial service file
10542 Unable to write through-dial service file
10551 Unable to read the channel allocation table
10555 Unable to access the hardware database
10558 T1 channels are out of sync/in sync with DSP ports
10559 Channels on the same or different node or link which share the same DN have different capabilities or types / T1 channel data & DSP port data are out of sync
10561 Failed to validate DN
10562 Unable to read or create the VSDN file
10563 Unable to write the VSDN file
10564 Unable to delete DN from VSDN file
10565 Unable to set up VSDN data menu
10572 Unable to delete voice record from Voice Service file

10573	Unable to read, create, or set up a voice menu service file
10574	Unable to write voice menu service file
10581	Unable to read, create, or set up a voice form service file
10582	Unable to lock a form information file, or delete caller responses
10583	Unable to access a voice record in a voice form service file
10584	Unable to write voice form service file
10585	Unable to update status of voice form service file in corporate directory
10586	Unable to set up list of fields data menu
10587	Unable to read, create, or set up a field in a voice form service file
10588	Unable to manipulate a field in a voice form service file
10591	Existing Voice Service cabinet will not be replaced by new VS cabinet and files
10592	Warning that cabinet still contains some files; cabinet not deleted
10593	Problem occurred with a service definition file listed in this SEER when moving cabinets
10595	Source and destination cabinets are the same
10596	Cannot retrieve a proper garbage collection cabinet from sc_types or one cannot be opened
10597	Voice service file name cannot be found in the Voice Service cabinet

106—Thru–dialing (TD)

10601 Initial resources not available

10603 Bad opcode received from VH

10604 VP synchronization error

10605 Failed to make the connection request

10606 Failed to make the connection request during custom revert

10607 Asking for help when none is expected

10608 Unknown time–out state

10609 Could not clean up resources

10610 General purpose error code

10611 The thru dial application was asked to terminate because the online update is about to begin.

107—Voice Prompt Maintenance (VPM), Remote Activation (RA)

10701 Playing problem

10702 Record problem

10703 Disconnect problem

10704 Initial resources not available

10705 Code does not handle all possibilities

10706 Attempt to access with invalid password

10707 Bad operation on a file

10708 Some synchronization or miscellaneous error

10709 Service file is currently being opened by another application

10710 Service ID being mapped is not a service information address

10711 Voice recording changed using Voice Prompt Maintenance

10713 The maximum number of attempted password changes was exceeded

10714 Unable to change UPDATE password in voice service file

10715 The Voice Prompt Maintenance/Remote Activation was asked to terminate because the online update is about to begin.

10716 The voice service UPDATE password has been changed by VPM

10799 The software encountered an unexpected problem. The problem may be caused by “binding startup” procedures.

108—Network Administration (NA)

10801 Failed to gain access to network database
10802 Failed to gain access to network message transfer agent
10803 Failed to get dynamic information from terminal
10804 Failed to gain access to cabinet access method
10805 Failed to gain access to disk data interface
10806 Failed to gain access to message transfer agent
10807 Failed to gain access to directory server
10808 Error occurred while using command line interpreter
10809 Error occurred while using remote voice services
10810 Failed to gain access to the hardware database
10811 Failed to gain access to administration base

109—Remote Voice Services (RVS)

10901 When prompted for DN, user entered the cancel key; the VceSize will not be valid

10902 All channels are busy so call cannot be placed

10903 Error during call processing

10904 Tasking error with Voice Service task

10905 Failed while opening or creating voice

10906 Failed to record or stop recording

10907 Failed to play voice

10908 Errors in disconnecting process

10909 VP/VPDH time-out

10910 VPIO task crashed

10911 Failed to delete voice record

10912 RVS failed to make a call to the DN specified by the user

10914 Outgoing call failed due to a collision

10915 Call disconnected before the RVS component determined it had been answered

110—Outcalling Agent (OCA)

11007 Delivery to nonuser message cannot be read because it is a message with a version number greater than the version allowed for this release of software

11011 Software encountered an unexpected problem

111—Voice Forms Service Unit (VFSU)

11101 Initial resources were not available to start up the service

11102 Caller's response file could not be created

11103 Request for something which has not been implemented has been received

11104 Error has occurred while trying to play voice

11105 Error was encountered while cleaning up resources

11106 Attempt to revert the caller has failed

11107 Forms manager has been deemed to have a major problem which prevents further use of this service

11108 Problem has occurred while attempting to access a caller's response file

11109 Problem has occurred while attempting to access a voice form definition file

11110 Form definition file for a particular session is found to be out of service

11111 Lower level error has been encountered which is beyond control of this service

112—Restore and Recovery (RR)

11204 Error occurred while trying to clean out messages from the user profiles

11205 Error occurred copying the prompts from tape to VS2

11206 Error reading the features of the system from VS1

11207 Could not copy user profiles from volume VS901 or VS902 to the destination user volume

11211 Error occurred while trying to restore VS1 from a disk backup

11212 Error occurred during the restore of a volume from tape to disk

11213 Error occurred while checking the user cabinets against the directory

11214 Error occurred while checking the user entries in the directory for matching cabinets

11217 Error occurred while synchronizing the Voice Services to the directory

11218 Error occurred while synchronizing the directory to the Voice Services

11219 Error occurred trying to synchronize the voice forms for the system

11224 User aborted restore

11225 Tape retension failed.

115—Restore and Recovery (RR)

11501 NA failed to gain access to the Network Database

11502 Error occurred while using the command line interpreter

BOOTROM diagnostic codes

System configuration diagnostics

000F SP configuration setup tests

SBC diagnostics

0035 CPU self tests
0036 BOOTROM checksum tests
0037 Exception handling tests
0038 Memory mapper tests
0039 Memory protection tests
003A Mapper adders tests
003B Timer tests
003C TAP register tests
003D TAP data lines tests
003E TAP memory tests

RSM diagnostics

006F RSM watchdog timer test
0061 Address decoding test
0062 Data lines test
0063 Address lines test
0064 Bank control tests
0065 Control/status registers tests
0066 Configuration register test
0067 Static RAM test
0068 Bytewise memory test
0069 SBC–driven UART loopback test
006A Peripheral interrupt test
006B Real time clock sanity test
006C Real time clock oscillator test
006D Real time clock interrupt test
006E SBC to RAM diag. download test
0071 MPU 68010 self tests
0072 MPU exception handling tests
0073 MPU address lines test
0074 Shared memory arbitration test
0075 MPU serial ports access tests

0076 MPU serial port interrupt test

SBC DRAM diagnostics

0031 Data lines test
0032 Address lines test
0033 DRAM memory tests
0034 Parity tests

2M RAM1 (bottom 2MB) diagnostics

0011 Data lines test
0012 Address lines test
0013 DRAM memory tests
0014 Parity tests

2M RAM2 (upper 2MB) diagnostics

0021 Data lines test
0022 Address lines test
0023 DRAM memory tests
0024 Parity tests

HABC diagnostics

0051 Data lines test
0052 Address lines test
0053 DRAM memory tests
0054 Parity tests
0055 Polling RAM tests
0056 Register tests
0058 TAP register tests
0059 TAP data lines tests
005A TAP memory tests

SCSI/RAM diagnostics

0041 Data lines test
0042 Address lines test
0043 DRAM memory tests
0044 Parity tests
0045 DMA register tests

0046	DMS transfer tests
0047	SCSI bus tests
0048	SCSI disk diagnostics

Internal states of VSS (shellstate)

0	VSS loaded, logging in with handlers
1	Logged on, no service on call (idle)
2	Allocated for a service
3	Connecting an incoming call
4	Making an outgoing call
5	Waiting for service completion on collision
6	Call is established
7	Adding a third party to a call
8	Transferring a call
9	Disconnecting a call
10	Shutting down the service or VSS
11	Waiting for time-out to initiate call transfer

Call progress status

1	Call is established
3	Called party is being rung
8	Called party is busy
9	Call request is rejected, receiving re-order tone
11	Call connection attempt failed
12	Call requests collision
13	Call transfer/conference/re-connect completed

Supplementary information to call progress status (Voice Services generates SEER)

1	Waiting in ACD queue
2	Waiting in Attendant queue
3	Trunk has been seized
4	Call is parked
5	Waiting in ESN off-hook queue
6	Idle ACD agent is found and being rung
7	Idle attendant is found and is being rung
8	Blocked due to no resources
9	Access restricted
10	Bad originating DN
11	Bad called DN
12	Internal error of the switch
13	Incomplete originating DN
14	Incomplete called DN
15	Originating party is busy
16	Originating party is maintenance busy
17	500/2500 set is on-hook
18	Originating party disconnects before call is answered
19	Originating party is multiple appearance single call arrangement with another user using the DN
20	Invalid TN
21	Incorrect customer number
22	Initiate transfer failed
23	Re-connect failed
24	Complete conference failed
25	Complete transfer failed
26	Other party does not answer
27	Unrecognized signal
28	Long silence is detected
29	SIT-based tone is detected
30	Call redirectionf failed.
31	Bad billing DN.
32	Bad client/subscriber’s DN.
57	Digit outpulsing completed.
58	Pager tone is detected

59	Voice is detected
60	Short silence is detected
61	Collision with the same service
62	Collision with a different service
63	GTI internal error

Service ID codes

0	Voice Messaging
1	Call Answering
2	Express Messaging
3	Through-dialing
4	Analog Transfer Agent (Networking)
5	Voice Menus
6	Voice Announcements
7	Meridian Access
8	Outcalling Agent
9	Voice Administration service, “IVT” service
10	Voice Prompt Adminstration service
11	Time-of-Day Control service
12	Hospitality Voice Messaging
13	Hospitality Post–checkout Service
14	Remote Activation Service
15	Delivery to Non-User Service
16	Remote Notification Service
17	Test Tool Service
18	Open Access Transfer Agent
19	Voice Form Transcription Service
20	Voice Form Call Interpreter.
21	CCA Change Greeting Service
22	Fax information service
23	Fax item maintenance
24	Same-call fax on demand delivery
25	Out-call fax on demand delivery
26	Multimedia outcalling agent

SCSI Sense Key Codes in decimal (first number in SEER 6603)

Table 79-1
SCSI Sense Key Codes in Decimal (first number in SEER 6603)

Sense key codes	Meaning	Disk	Tape
0	No sense key information	Successful command	Successful command
1	Recovered error	Command successful, some recovery done ***Note:*** for some mode settings the last command may have terminated before completing	Command successful, some recovery done
2	Not ready	Logical unit addressed cannot be accessed	No cartridge in drive
3	Medium error	Flaw in medium; error in recorded data; may also indicate hardware error	Unrecovered data error
4	Hardware error	Non-recoverable hardware failure while performing a command or during self-test. Includes: SCSI interface parity error, controller failure, device failure.	Non-recoverable hardware failure while performing a command or during self-test. Includes: SCSI interface parity error, controller failure, device failure, et cetera.
5	Illegal request	Illegal parameter in CDB (command descriptor block). Additional parameters supplied to some commands (medium may have been altered).	Illegal parameter in CDB or conflict with Mode Select parameters. Tape not positioned to end of data. Attempt to write to DC300XLP tape. Attempt to write in QIC-24 mode.

—continued—

Table 79-1 (continued)
SCSI Sense Key Codes in Decimal (first number in SEER 6603)

Sense key codes	Meaning	Disk	Tape
6	Unit attention	Reset occurred since last selection by initiator (includes power off/on)	Reset occurred since last selection by initiator (includes power off/on) Cartridge changed with LED on
7	Data protect	Write operation attempted on write protected device	Write operation attempted on write protected cartridge. Wrong type of cartridge used.
8	Blank check	On read: A write-once device encountered blank medium or format-defined end-of-data. On write: a write-once device encountered non-blank medium.	End of data on tape. Wrong data format on tape.
9	Vendor unique	Not supported.	Not supported.
10	Copy/Compare aborted	Error detected on source or destination device during COPY, COMPARE or COPY AND VERIFY operation.	Not supported.
11	Aborted command	Disk drive aborted the command. The initiator may try again.	Tape drive aborted the command. The initiator may try again.
12	Equal	SEARCH DATA command has satisfied an equal comparison.	Not supported.
13	Volume overflow	A buffered peripheral device has reached the end of medium, and data remains in the buffer that has not been written to the medium.	Physical end-of-tape reached and write data remains in buffer.
14	Miscompare	Source data did not match data read from medium.	Source data did not match tape data during VERIFY command.

—end—

SCSI error codes in decimal (second number in SEER 6603)

0	No additional sense information
1	No index/address mark found
2	No seek—disk drive could not complete a seek operation
3	Write fault—fault occurred during a write operation
4	Drive not ready
5	Drive not selected
6	No track zero—disk drive could not re-zero the positioner
7	Multiple peripheral devices selected
8	Logical unit communication failure
9	Track following error
10	Error log overflow
12	Write error/auto reallocation failed
16	ID field CRC/ECC Error: could not read sector ID without CRC error
17	Unrecovered Data Error: block could not be read despite retries
18	ID field address mark not found: no address mark for a sector header
19	Data address mark not found: no address mark for a sector data area
20	Record not found—improper block sequence or block cannot be read
21	Seek / positioning error: data header cylinder address wrong
22	Data synchronization mark error
23	Recovered read error (with retries): error recovered without ECC
24	Recovered read error (with ECC)—error recovered using ECC
25	Defect list error: error accessing one of disk drive's defect list
26	Parameter overrun: parameter list is too long for the drive
27	Synchronous transfer error
28	Primary defect list not found
29	Compare error: data wrong in VERIFY or WRITE AND VERIFY commands
30	Recovered id with ECC correction
32	Invalid command operation code issued to disk drive
33	Invalid block address given to disk drive
34	Illegal function for device type
36	Illegal field in command descriptor block
37	Invalid/unsupported LUN: bad logical unit number in command
38	Illegal field in parameter list
39	Write protected: disk drive is write protected

40	Medium changed: NOT READY followed by READY condition
41	Power up or reset: disk drive has been reset
42	Mode select changed condition/log parameters changed
43	Microcode download or copy error since host cannot disconnect
44	Command sequence error
45	Overwrite error on tape update in place
47	Commands cleared by another initiator
48	Cannot read medium: incompatible/unknown format, cleaning cartridge
49	Format failed
50	No defect spare location available: no remaining spare tracks
51	Tape length error
55	Rounded parameter
57	Saving parameters not supported
58	Medium not present
59	Sequential repositioning error
61	Invalid bits in identify message
62	Logical unit has not self-configured yet
63	Changed operating definition/microcode has changed
64	RAM failure or other internal component diagnostic failure
65	Data path diagnostic failure
66	Power on or self-test diagnostic failure
67	Message reject error—initiator rejected message from disk drive
68	SCSI controller hardware/firmware error
69	Reselect failed—timeout detected while attempting reselection
70	Unsuccessful soft reset
71	Parity error—parity error on SCSI bus results in unrecoverable data
72	Initiator detected error
73	Inappropriate / illegal message
74	Command phase error
75	Data phase error
76	Logical unit failed self-configuration
78	Overlapped commands attempted
80	Write append error/position error related to timing
81	Tape erase failure
82	Tape cartridge fault
83	Media load/eject failed / medium removal prevented
90	Operator request (medium removal/state change/write protect or permit)

91	Log error / threshold condition met
92	RPL status change/spindles synchronized or unsynchronized
128–143	Correctable ECC (low nibble = length) (Seagate)
144	Configuration error (Seagate)
160–175	Self–test error (low nibble = test #) (Seagate)
176	Servo command time out (Seagate)
177	Servo command failure (Seagate)
178	Servo command rejected (Seagate)
179	Servo interface failure (Seagate)
192	Defect list full (Seagate)
193	Failure writing G list (Seagate)

SCSI driver errors

129	Selection timeout
130	Unexpected disconnect
131	Bus reset
132	Parity error
133	Timeout

tt htape error codes

02	Not ready: no tape drive
03	Medium error: bad tape
04	Hardware error: bad drive
06	Unit attention: drive reset
07	Data protect: tape write–protected
16	See SCSI sense keys
17	Time–out: tape operation timed out
18	SCSI driver exception
19	No tape drive present
20	Seek error: tape positioning operation out–of–bound.

Operating system error classes

1	Run time errors
2	Tasking errors
3	I/O errors
4	User errors
5	PIO errors
6	Kernel errors
7	Program errors
8	Boot errors

Run time errors

0	Bbus error
1	Divide by zero
2	Odd address
3	Illegal construction
4	Range error
5	Stack overflow
6	Privilege exception
8	No pool
9	No control blocks
10	Segment error
11	Region timeout
12	Parity error
13	Kernel error
14	Floating point overflow
15	NIL pointer reference
16	Set error
17	Long integer error
18	Long integer divide error
19	Multiplication overflow
20	Exit error
21	Mini–error
22	Invalid negative input
23	Floating point format error

Task result errors

1	Accept time-out

4	Invalid task ID
5	Reply error - accepting task died
7	Invalid time given to WAITTIME
9	Initiate or re-initiate error
15	POOL error
17	Mini–task tried to initiate another task
21	No appropriate buffer for tasking operation
22	No transmit buffer, network overloaded
23	Invoker stack overflow
24	Invalid push/pull parameters
25	Parameter mismatch in remote operation
26	Entry not found in remote operation
27	Remote communication problem
28	trlocale
29	Bad event passed to SetTimer
30	No control blocks

I/O error results (Helix IO results—IO error class)

-1	End of file
0	No error
1	Mixing I/O operation types (e.g. READLN, BLOCKREAD)
2	Resource limit reached
20	Illegal character written to terminal driver
30	Out of bounds
40	Attempting I/O operation on unopened file
41	File already open
42	File not committable
43	Illegal attempt to seek
44	Bad file set ID
45	Server not found
46	Operation not allowed across file systems
47	Already logged on
48	Client elix resource limit
49	Value overflow
51	Accept timeout
54	Invalid task ID
55	Reply error—accepting task died

57	Invalid time given to WAITTIME
59	Initiate or re-initiate error
65	Pool error
67	Mini–task tried to initiate another task
71	No appropriate buffer for tasking operation
72	No transmit buffer, network overloaded
73	Invoker stack overflow
74	Invalid push/pull parameters
75	Parameter mismatch in remote operation
76	Entry not found in remote operation
77	Remote communication problem
78	trLocale
79	Bad event passed to SetTimer
80	No control blocks
81	Server accept time-out
84	Bad task
100	Mismatch in server/client interface
101	Bad pathname
102	File not found
103	Cannot create
104	Attempt to create file with duplicate name
105	Bad address
106	I/O operation attempted outside file limits
107	Mode conflict
108	Bad object type
109	Access denied
110	Invalid password
111	Server does not support command
112	Device off-line, could not communicate
113	Server resource limit
114	Parity error reading data from server
115	Disk write–protected
116	No directory
117	Attempt to write read-only file
118	Bad access mode
119	Bad remote pointer
120	Transaction timeout on close/commit of file set

121	Date not set - attempted file commit with no time
130	No directory on floppy
131	Too many files on floppy
132	No room on volume
133	New volume mounted
134	Time-out on volume
140	Serious error level
148	Invalid site address
149	Protocol error between communication servers
150	Communication link failure
151	Remote site failure
152	FID not recognized by server
153	Software consistency check failed
154	File set transaction ID invalid
155	Bad volume ID in FID
156	dpares field input non-zero
157	Invalid UNIX object type
158	File exists already
159	Source pathname invalid
160	Illegal parameter
161	Destination pathname invalid
162	Bad volume ID in destination FID
163	iIvalid input parameter
164	Bad password input
165	Bad volume control parameter
166	Invalid agent ID on logout
167	No std delete of directory
168	Bad instance key
169	Read error in user data
170	Write error in user data
171	Bad agent or object task ID
172	Bad command length
173	Bad volume ID in source FID
174	Permission denied
175	Bad block count
176	Bad sequence number
177	FOS data timeout

User errors

1	Audit failed
2	Switch over attempt before backup ready
3	User initiated switch over - not an error
4	Bus controller detected bus error

Kernel errors

1	No supervisor
2	Daddy no buffers
3	Supervisor no buffers
4	Rendez bad buffer
5	Bind no delay
6	Illegal bind
7	Non-nil event queue
8	Error parity
9	Unknown interrupt
10	Map not present
11	Map out of range
12	Map supervisor protected
13	Map write–protected
14	No debug buffers
15	Bad queue
16	Bad monitor code
17	Bad monitor data
18	Bad OSP code
19	Bad OSP data

Program control errors

1	No file
2	Locale gone query
3	Disk read error
4	Bad file type
5	Link error
6	Unable to create locale
7	init error
8	Eexecution error

9	Bad PD
10	No task segment
11	No program
12	Program error
13	No buffer
14	Interface mismatch
15	Bad program ID
16	No segment
17	No PD File
20	No buffer memory
22	No heap init
25	No openPD memory
26	Wrong PD version
27	Error reading PD
28	Old PD
29	Monitor mismatch
30	Version error
32	Used units error
33	Out of heap
34	Adopted error
35	Bad state
36	No program agent
37	Not the right parent
38	Not an orphan
39	Access denied
40	Trying to load a new segment
41	Try to start process again

List of terms

ACD

See Automatic Call Distribution.

AD

See Administration Base.

AD_TOOLS

Move user utility (TOOLs level)

ad_util

See Administration utility (RSC level)

ADDPOOL

When tasks within Meridian Mail need to communicate with each other, a buffer area is needed for the messages. ADDPOOL, an operating system, memory function, is one of the operations used to configure this buffer area.

Administration Base

AD is a set of routines which provides the capability to read from and write to the personal and organization profiles.

Administration utility

ad_util, a system utility, is a program which provides access to both the system and customer profiles.

AD_TOOLS

This is a system utility.

allocator

This program allocates resources. This is a startlist entry.

AMIS

See Audio Message Interface Specification.

AMISA

AMIS developed for analog message transmission.

AML

See Application Module Link, which was formerly called CSL (Command and Status Link). *See also* SEER Class 25.

Analog Transfer Agent

ATA is a networking software component. *See also* SEER Class 37.

announcement service file

This contains information necessary to support a particular announcement service, for example, passwords, recording length, recording exists, and so on.

Application Module Link

AML formerly called Command and Status Link (CSL) defines the PBX-to-application server connection. In Meridian Mail it is the PBX-Meridian Mail communications link. *See also* SEER Class 25 for further information on this communication software component.

ARGSTRING

See Argument String.

Argument String

ARGSTRING is passed in to the VSS program to indicate startup parameters. This is usually found in the STARTLIST against the VSS entry.

ATA

See Analog Transfer Agent and SEER Class 37.

Audio Message Interface Specification

AMIS is a protocol standard for delivering messages between two voice message systems. This specification developed allows networking among multiple vendors' voice messaging systems.

Audit

Periodic operation, usually nightly, to reclaim system resources or optimize data structures. Audits are performed by the volume server's organization directory.

Automatic Call Distribution

ACD is a queue that routes incoming calls to the voice channels. It is a feature on the PBX that distributes incoming calls among live or automated

agent DNs. An ACD queue is provided to hold new calls temporarily until a free agent is available to answer the call. The DN associated with the ACD queue is called ACD DN or Primary DN.

BILLDN

See Billing DN and SEER class 22.

Billing Control Table

Table that maintains a count of the total numbers of MMUI, VMUIF, and Local Voice Users in the system.

Billing DN

BILLDN is the DN to which all toll charges will be billed. This applies to ISN systems only. *See also* SEER class 22.

BKUPSET

Disk backup switch utility (TOOLS level)

BLOCKID

This refers to an encoded disk block address unique within a given volume.

Block records

BRS is a record in the volume server to keep track of disk blocks given out or returned back from applications.

bootrom

Bootup is the firmware that provides hardware diagnostics, loads OS, and also provides some other low level I/O services.

bootup

Bootup is the procedure that boots the system up. Through this procedure, the system will go through various hardware and software diagnostics, load OS to the MSP node from the disk drive, download the OS to other nodes if applicable, and load and start programs on every node. “Up” means all programs have started running.

BOXNUMBER

This is the local mailbox number, less any site or location prefix. The site or location prefix and box number together uniquely identify a mailbox. For example, on a system with Meridian Networking, “Mailbox 63331234” is internally represented as box number 1234 with site prefix 6333. *See also* SEER class 22 and 56.

BRS

See Block records.

buffer pool

This means memory allocated.

BURP

Backup and Restore program (RSC level utility), using tapes or disk (SEER Class 15)

BUSBANG

This is a software program used by Manufacturing and Product Integrity (PI) to load the system bus.

BYTESTREAM

This is a type of text record within a DD file consisting of an unformatted sequence of bytes. *See also* SEER class 22.

Cabinet

A Meridian Mail directory which stores system and user files. A user's personal cabinet is also known as a "mailbox."

Cabinet Manager

CM, a file system software component, is a set of routines that provides access and manipulation of cabinets within the heirarchical file system.

Cache

Data stored in RAM (random access memory) instead of on disk. Caches are used to speed up system performance.

Caching

This is a memory resident copy of disk data, used to speed up the data reference to avoid slow disk access.

Called Directory Number

CALLEDDN or CDN is the destination DN called by the caller, that is, the called Directory Number of the party that received the call. For services that were called directly, this is the voice service DN. For the call answering service, this is the originally called DN which was forwarded to Meridian Mail. *See also* SEER classes 22 and 56.

CALLEDDN

See Called Directory Number and SEER classes 22 and 56.

Calling Directory Number

CGN is the DN of the calling party, that is, the DN of the party that originated the call. *See also* SEER class 22.

Call progress status

The current status of a call initiated by Meridian Mail, for example, call ringing, established, busy, or disconnected.

Call progress tone detection

CPTD is a function provided by the voice processor to monitor tones during outgoing calls. This set of functions implemented in 32K voice cards allows the Digital Signal Processor (DSP) to recognize various inband telephony tones such as ringback, dial tone, busy, fast-busy, reorder, speech, and so on, thus allowing Meridian Mail to make outgoing calls for remote notification. CPTD is usually enabled when Meridian Mail makes a call out on a trunk.

callstate

This is the software state for a call.

CAT

See channel allocation table.

CCA

See Centralized Call Answering and SEER class 56.

CDN

S*ee* Called Directory Number.

CDP

See Coordinated Dialing Plan and SEER class 22.

Centralized Call Answering

CCA is an alternate name for the VMUIF style of voice messaging as implemented in Meridian Mail. As a further reference, *see* SEER class 56.

CGN

See Calling Directory Number and SEER class 22.

Change Mode

CHGMODE is an internal Meridian Mail software instruction which provides file access writes to a software task. *See also* SEER classes 22 and 56.

channel allocation table

The channel allocation table (CAT) defines the DNs, TNs, capabilities, type, and dedicated services for each voice or multimedia channel. It is a collection of one or more forms through which services requiring full or basic capable channels, and voice or multimedia ports can be allocated to a

channel, or channels, with the matching criteria. The CAT can also be used to associate channels with common attributes (basic versus full, voice versus multimedia) to the same call distribution queue.

CHECKIN

This means enabling a guest mailbox.

CHGMODE

See Change Mode and SEER classes 22 and 56.

CLI

See Command Line Interpretor.

clientID

The client ID is a unique identifier for each user on the system. It is handed out by the organization directory and used for administration and for tracking user's disk space usage. Also, each other directory entry type has a unique clientID. *See also* SEER class 31 for further information.

CM

See Cabinet Manager.

COMM

Used in the context of SEER class 105, Voice Services Administration, COMM refers to a code unit (VSA_COMMON) from which common VSA routines are accessed. If a 105 class SEER is generated with COMM in the SEER text, this is a reference to the code unit originating the SEER.

Command and Status Link

CSL refers to the PBX-Meridian Mail communications link. This link is also known as the ISDN/AP link or AML link. *See also* SEER Class 25.

Command Line Interpretor

CLI is a man-machine interface software component that interprets commands typed in an MMI shell.

Coordinated Dialing Plan

CDP is a convention for assigning Directory Numbers, whereby each set of DNs located on the same switch in a network begin with the same leading digits (called a steering code). *See also* SEER class 22.

COS

Class of Service

CPE

See Customer Premise Equipment.

CPTD

See Call progress tone detection.

critical

This is a startlist entry of a restart option. PRM restarts the program after any type of termination.

CSE

Circuit Switch Equipment, a generic reference to the telephone switch. It could also refer to Common status equipment, such as a switch.

CSL

See Command and Status Link. Currently called the ISDN/AP link or AML link. *See also* AML (Application Module Link) and SEER Class 25.

Customer Premise Equipment

CPE is telephone equipment installed at the customer site and not at the Central Office—for example, a Private Branch Exchange (PBX), a private telephone switch).

DATAFILL

Used as a verb, this acronym means to enter data in the Meridian Mail or switch database . Used as a noun, this acronym refers to data in the Meridian Mail or switch database.

DATAFILLED

Used as a verb, this acronym means to enter data necessary to configure an SMDI link.

DATALINK

This is a task that handles the data communication between two networking sites.

datalink task

This is a networking software component.

datatype

This refers to the specific type of data entered against a parameter, for example, SMDIdatatype.

David ESDI Emulation Handler

DEEH is a software program that handles message transfers between the Option 11 switch and Meridian Mail Card Option. *See also* SEER class 68 for further information.

DD

This is a disk software component. *See* Disk to Data access method and SEER class 55.

debugger

This is a software tool used to troubleshoot software problems.

Debugging flag

A field in the system profile that is enabled by designers to acquire more information from a call session.

DEEH

See David ESDI Emulation Handler and SEER class 68.

Delivery to non-user

DNU is the process of calling a phone (usually one that is external to Meridian Mail) and playing a message to a person who is not a Meridian Mail user. DNU can only send messages to non-users. It does not deliver messages to a mailbox or a number of mailboxes, nor to NMTA for a network user(s). *See* SEER class 92 for further information.

Dial Tone

This is the tone heard when a line is taken off-hook. It indicates a switch's readiness to accept digits.

Digital Signal Processor

DSP is a microprocessor that has been specialized for high performance processing of digitized signals. Meridian Mail uses DSPs to perform functions such as multimedia data compression and expansion, tone recognition, tone generation, and fax protocol processing. For example, it is used by Meridian Mail to play and record voice as well as transmit and receive fax.

Directory Number Update

DNP is the mnemonic for a message on the AML link between Meridian Mail and a Meridian 1 switch. When Meridian Mail is involved in a three-way call, a DNP message is used to inform Meridian Mail that one party has disconnected. It is also used when a two-party call involving Meridian Mail is extended to a third party. *See also* class 22 and 56.

Directory Server

DR is a program that provides access to the organizational directory. It also provides update capabilities. *See* SEER class 31.

DISKDOG

This is a software program used by Manufacturing and Product Integrity (PI) to test and load the SCSI subsystem.

Disk to Data access method

DD is a set of routines that provides access to record oriented files. *See* SEER class 55.

DJDE$

SIDE=NUFRONT

DN

Directory Number

DNP

See Directory Number Update. *See also* class 22 and 56.

DNS

Directory Numbers.

DNU

See Delivery to non-user and SEER class 92.

DR

See Directory Server and SEER Class 31.

DRCB

See Organization directory control block and SEER class 31.

Driver_Id

See Driver Identification number.

Driver Identification number

Driver_Id or Drv_Id is a unique reference identifier for each driver on a node, a driver being a firmware entity that handles every DSP port.

Drv_Id

See Driver Identification number.

DSP

See Digital Signal Processor.

DSP port

Digital signal processor port that is acting as a voice channel or multimedia channel.

DTMF

See Dual-tone multifrequency.

DTR

Digital tone receiver

Dual-tone multifrequency

DTMF is a standard describing the audio properties of the tones generated by keypresses on North American (and other) telephones. *See* Dual-tone multi-frequency. Used loosely, DTMF refers to a keypress on a telephone keypad.

End of Text

ETX is part of the PMSI protocol that signals the end of a complete message. *See* SEER class 71.

Enhanced Serial Data Interface

ESDI is the Serial Data line card on the PBX.

ESBC

Enhanced Single Board Computer, a printed circuit pack (also known as SBC)

ESDI

See Enhanced Serial Data Interface.

ETAS

Emergency Technical Assistance (Northern Telecom)

ETX

See End of Text and SEER class 71.

facsimile

FAX is a process for transmitting printed matter over telephone wires.

FASCII block

A data block, up to 8k in size, used to store ASCII data that is to be transmitted by the DSP to a remote fax machine.

Fax

See facsimile.

Fax block

A data block, up to 8k in size, used to store encoded fax data.

Fax Handler

FH is a library of routines used to transmit and receive faxes. It is called by fax application like Fax–on–Demand. It invokes the VPIO task.

Fax Handler Procedural Interface

FH is a set of routines for receiving and transmitting fax segments. *See* SEER class 81.

Fax Item Maintenance

FIM is a service that allows an administrator to update a fax item definition. *See* SEER class 83.

Fax Printing

FP is a service provided by the OCS and MCAs. It provides callback fax delivery. *See also* SEER class 85.

Fax segment

A sequence of one or more fax blocks with a descriptor record.

FD

See Front Desk Console and GAC.

FH

See Fax Handler Procedural Interface and SEER class 81. This is the fax equivalent of VH.
FH also represents Fax Handler. *See* Fax Handler and SEER class 81.

FID

See File identifier.

field-support cabinet

This is a repository of files to be maintained for investigation by field support personnel. This cabinet is primarily used as a result of conversion.

FIFO

First-In-First-Out

File identifier

FID is the file's identifier in the file system. Every Meridian Mail file (including voice messages) is assigned a unique file identifier number.

filesystem

This is the part of the operating system that manages data on disk. It provides a basic filing capability which is used in different ways by application software. Meridian Mail actually uses two file systems: one for program loading and one is optimized for voice messaging. *See also* SEER class 31 for further information.

FIM

See Fax Item Maintenance and SEER class 83.

FM

See Forms Manager multiserver and SEER class 43.

FM_PKG

See Forms Manager Packagemultiserver and SEER class 43.

FMP

See Forms Manager Procedures and SEER class 43 .

FMS

See Forms Manager System procedures and SEER class 43.

form information file

This is a file that contains information specific to a form, accessible via voice forms service. It is used by the Forms Manager to keep track of the responses for a particular form. It maintains the First-In-First-Out (FIFO) ordering of the responses.

Forms Manager multiserver

The FM is a program which handles all requests to store, retrieve, or inquire about voice form caller responses. See SEER class 43.

Forms Manager Package

The FM_PKG provides access to a set of commands which allow for the synchronization of the various files and definitions required by the Voice Forms service. See SEER class 43.

Forms Manager Procedures

FMP are a set of interface procedures called by the applications to talk to the Forms Manager. See SEER class 43.

Forms Manager System procedures

FMS are a set of interface procedures called by the backup and restore utility to maintain the integrity of Voice Forms data on disk. See SEER class 43.

forward

FWD is used in one very specialized context in SEER report 3135, item 9.

FP

See Fax Printing and SEER class 85.

Front Desk Console

FD is the software component that handles the GAC and hospitality administration. *See also* GAC.

FWD

See forward. This acronym means forward. It is used in one very specialized context in SEER report 3135, item 9.

GAC

See Guest Administration Console and SEER class 72. This term applies to hospitality systems.

General Purpose platform

GP is a Meridian Mail platform designed for use with switching equipment such as SL-1, SL–100, DMS–100, Supernode, and supported non-NT switches (AT&T, ROLM and NEC switches).

Generic telephony interface

GTI is a voicebase software component that provides applications to gain access to call processing functions on different types of switches. *See also* SEER Class 28 for further information.

GP

See General Purpose platform.

Guest

GST refers to a mailbox for a hotel guest in the Meridian Hospitality Voice Service system.

Guest Administration Console

GACS is the terminal an administrator or operator uses to maintain guest mailboxes, or to monitor the hospitality system status. *See also* SEER class 72.

GSP

General-purpose Signal voice Processor, the voice processor card used with Meridian SL-100 or Meridian Digital Centrex.

GST

See Guest.

GTI

See Generic telephony interface and SEER Class 28.

GTI Call Progress Status

This is the status of a call, for example, ringing, busy, and so on. *See also* SEER Class 28 for further information.

hardware location

HWLOC is a representation of the location of the specified device within the hardware. For example 0–3–1–2–1 indicates SPM 0, Node 3, Card 1, DSP 2, channel 1.

Hardware maintenance utility

MD_MA is a utility accessible from the ETAS level, which manipulates the hardware database.

hardwired

This refers to a type of system where the voice cables are routed directly to the voicecards. On these systems, a VSS acquires a VPH upon startup and does not release it until it is disabled.

HAS

Hospitality Administration Server (SEER Class 70).

HD

Hardware database (SEER Class 39).

hd_initSearch

This is a hardware database function.

Hospitality Voice Services

HVS is a Meridian Mail feature that provides the voice messaging interface to guests, and also the handling of hospitality functions such as enabling/disabling guest mailboxes. *See* SEER class 70.

HVS

See Hospitality Voice Services and SEER class 70.

hwd

This refers to hardware database.

HWDB

This refers to hardware database.

HWLOC

See hardware location.

HW_MODIFY

Hardware modify utility (TOOLS level).

IDM

See Internal Data Memory.

IDX

This refers to index.

ignore

This is a startlist entry of a restart option. PRM handles an ignore option in the same way as an unload option. *See* ‘unload‘.

InfoVol

This is a field in the voice forms record in the system profile. It contains the number of the volume where the Voice Form Information files are stored. See SEER class 43.

Initial Program Load

IPL is a universal computer term that normally refers to the System Boot. In the Voice Mail context, it refers to the time when an individual program starts up.

Input/output controller

IOC refers to a device or medium that is used to achieve a bidirectional exchange of data.

Integrated Service Digital Network/Application Protocol

ISDN is a protocol interface used with Meridian Mail systems that are connected to Meridian 1 switches, formerly known as CSL. *See also* AML (SEER class 25).

Intelligent Service Node

ISN is the Meridian Mail hardware configuration that is capabable of supporting up to 1920 ports. An ISN consists of up to 10 SPM’s and is intended for use in Central Office applications.

Internal Data Memory

IDM is a small amount of special internal memory used to store data contained by the DSP. There is only enough IDM to support a small number of drivers in a DSP,

Inter-process communication

IPC is a generic computing term referring to a protocol used by different software tasks for communication. Problems related to any aspect of IPC are normally software bugs, and are not end-user serviceable. *See also* SEER class 22.

IOC

See Input/output controller.

IPC

See Inter-process communication and SEER class 22.

IPL

See Initial Program Load.

ISDN

See Integrated Service Digital Network/Application Protocol. *See also* AML (SEER class 25).

ISDN/AP

Integrated Services Digital Networks/Applications Protocol. *See also* AML (SEER class 25).

ISN

See Intelligent Service Node.

Key

Indexing mechanism employed by the organization directory.

LAPB

See Link access protocol B.

LIFN

LAN interface node.

link

This is a communication path.

Link access protocol B

LAPB is a data communication protocol that provides error free data interchange between a DTE and DCE over a single or multiple physical

circuit. It is a type of high-speed synchronous protocol used in X.25 data transmission.

LinkID

See Links identification/name. *See also* SEER class 38.

Links identification/name

LinkID is an ID registered with the name server. *See also* SEER class 38.

Locale number

Represents the area in memory in which a program is running

MA

Maintenance Administrator (SEER Class 61)

Maintenance Busy

MtcBusy is the initial state that a DSP chip is in if it exists in the system.

Man Machine Interface

MMI is the screen-based interface that allows access to Meridian Mail administration screens, maintenance screens, and so on.

Mass storage user program

MUP_PKG is a utility package available to designers either directly or part of BURP to obtain information about the disks on each node. *See also* SEER class 15.

Mass-storage Utility Program

MUP allows the Mass–storage functionalities to be exercised by users at the terminal.

MAT

See Multi-Administration Terminal feature.

MBX

Mailbox.

MCA

See Multimedia Outcalling Agent and SEER class 84.

MD

See MISA Driver DD CLI package (ETAS level).

MD_CM

MISA cabinet utility (ETAS level)

MD_DR

Corporate directory utility (ETAS level)

MD_MA

See Hardware maintenance utility (ETAS level).

MD_MT

This is a utility package that allows the designer to examine messages composed by the Meridian Mail users.

Meridian Information Systems Architecture

MISA is the Meridian Mail file system.

Meridian Hospitality Voice Services

MHVS could be the same as HVS, or could also refer to the /1/MHVS cabinet created for hospitaity software use. *See* SEER class 70.

Message Transfer

The MT is a server which delivers messages addressed to a series of people or a message which is to be delivered at a certain point in time. How a message is delivered depends on the type of message recipient. A message to a local voice user is deposited into their mailbox. A message to a network user is sent to the Network Message Transfer Agent. A message to a non-user is sent to the Outcalling Server.

Message Transfer Agent

MTA is a task that is responsible for delivering the message created by the user to the recipients. *See also* SEER Class 32 for more information on this networking software component.

Message Waiting Indicator

MWI is a feature of the switch. It indicates the presence of a response to a particular phone via interrupted dial tone, a flashing light on the phone, et cetera. Typically this is a LED or neon lamp on the phone set associated with a mailbox. The status of the lamp, when lit, is used to indicate there is a new message or unread message in the mailbox. *See* also SEER class 91.

MHVS

This is the acronym for Meridian Hospitality Voice Services, which is considered the same as Hospitality Voice Services (HVS). *See* Hospitality Voice Services and SEER class 70. *See* also Meridian Hospitality Voice Services.

MI

MASI Interface Server (SEER Class 14)

MISA

See Meridian Information Systems Architecture.

MISA Driver DD CLI package

This MD is a file utility that provides a command line interface to DD routines.

MKCAB

This file system function is a CI command that allows the user to create a cabinet.

MMI

See Man Machine Interface.

MSP

Multi-Server Processor on SPM. This is the node in a Meridian Mail system which has the various server software running on it.

MT

See Message Transfer.

MTA

See Message Transfer Agent and SEER Class 32.

MtcBusy

See Maintenance Busy.

Multi-Administration Terminal feature

MAT was previously known as UAT or User Administration Terminal. In association with the Multi-Administration Terminal feature listed as an available feature on the General Options form, there can be up to three MATs configured on the system. A MAT provides access to Customer-specific User Administration, Voice Services Administration, and Class of Service Administration.

Multimedia Outcalling Agent

The MCA delivers callback fax deliveries. It receives callback fax delivery requests from the OCS.

Multiple Administration Terminals

This is a feature that allows multiple terminals to have simultaneous access to user administration, voice services administration, and read–only access to class of service.

Multiserver

This is a program that serves multiple users.

MUP

See Mass-storage Utility Program.

MUP_PKG

See Mass storage user program and SEER class 15.

MWI

See Message Waiting Indicator and SEER class 91.

MYID

This is the Operating System, task's identifier.

NA

Network Administration (SEER Class 108)

NAK

See Negative Acknowledgement and SEER class 71.

Name Server

This is an operating system, software component.

NDN

See non-delivery notification.

Negative Acknowledgement

NAK signals that the message was not received correctly. *See* also SEER class 71.

NetDb

See Network Database.

NetDN

See Network format Directory Number and SEER class 22.

Netfir

This is the name of the message file.

Network Database

NetDb is a file that contains the definitions of networking sites and related information.

Network Message Transfer Agent

NMTA is a task that handles the delivery of networking messages between two Meridian Mail systems. *See also* SEER Class 36 for further information.

Network format Directory Number

NetDN is the internal format Meridian Mail uses to store DNs. NetDNs can be dialed from a Meridian Mail port, but must be converted to an alternate format if they are to be dialed from the calling DN—for example, in the call-sender feature. NetDNs are also converted before being announced in a voice prompt so that they will be in a recognizable format to users who may be calling in from a different switch in the NMS network, than that containing the Meridian Mail port DNs. *See* SEER class 22.

Network Message Transfer Agent

NMTA or NM are acronyms for networking software components. *See also* SEER Class 36 for more information.

NEWPOOL

When tasks within Meridain Mail need to communicate with each other, a buffer area is needed for the messages. NEWPOOL is an operation used to create a new buffer area for communication.

NEWPOOL TempBuf

This is an operating system, memory function.

NM

See Network Message Transfer Agent and SEER Class 36. This is a different version of the acronym NMTA.

nm CallError

This is an entry for the NM task.

NMI

See Non-maskable Interrupt.

NMTA

See Network Message Transfer Agent and SEER Class 36.

non-delivery notification

NDN are system messages that inform the Meridian user, who originated the message, that their composed message cannot be delivered.

Non-maskable Interrupt

NMI is a hardware interrupt that cannot be masked (ignored) by the CPU. It is often used to reset a CPU.

NVP

Network Voice Processor, the voice processor card used with the SL-1

NWMODEM

This is a type of port assigned to a system's dataports.

OCA

OutCalling Agent (SEER Class 110)

OCS

See Outcalling Server and SEER class 90.

OCS_UTIL

This is a utility that is used to monitor the internal status of the OCS. It is available via the ETAS or RSC access levels if Outcalling or Fax On Demand features are installed. *See also* SEER class 90 for further information.

Octothorpe

This is another name for the pound key on the telephone set (#).

OFS

See Open File Server and SEER Class 13.

OM

Operational Measurements is a software component. See SEER Class 33 for further information.

OM_UTIL

Operational Measurements utility (RSC level)

OOS

See Out of Service.

OOSTESTOVER

See Out of service, offline test over.

Open File Server

OFS is a server that provides shared caches to the program running on the same node, to speed up read access to frequently used data. It is a disk caching handler: disk data may be cached in memory at the applications' request to speed up subsequent disk read operations. *See also* SEER Class 13 for further information.

Open Transfer Agent

OTA is a task that handles the transmission of a message to the remote system according to the protocol defined by AMIS. *See also* SEER Class 42 for more information on this networking software component.

Organization directory control block

DRCB is a data structure used by Meridian Mail software to access the organization directory and perform operations on it. *See also* SEER class 31 for more information.

Organization Profile

ORGPROF is an internal Meridian Mail database containing configuration information about the system or about one of the customer groups on the system. It is generally used to refer to either the System Profile or a Customer Profile.

ORGPROF

See Organization Profile.

OS

Operating System

OSP

Operating System Program (SEER Class 64)

OTA

See Open Transfer Agent and SEER Class 42.

OTA control block

This is where information is stored for the OTA.

Out of Service

OOS is a state indicating that the device has been disabled and is unavailable for use.

Out of service, offline test over

OOSTESTOVER is a state indicating that the device has passed offline tests which have been completed.

Outcalling Server

OCS is an entity which controls the placing of calls for RN, DNU and FP. *See also* SEER class 90 for further information.

overlay

This is software loaded into an already running program.

PATCHDR

This is a command (part of VSP_UTIL) that re-associates voice service definition files with their DR entry. The DR entry is updated with the correct FID (file ID) of the file.

PCI

Present Call Information

PCO

See Post Check Out.

Pending Out of Service

POOS is a transitory state between idle and out of service. This state indicates that the device is unloading and will become out of service when it has completed.

PLH

PMS Link Handler (SEER Class 71)

PMS

Property Management System (SEER Class 71)

PMSI

See Property Management System Interface and SEER Class 71.

POOS

See Pending Out of Service.

Post Check Out

PCO is a voice messaging service used by guests to access remaining messages in their mailbox after check out.

PP

Peripheral Processor (SEER Class 26)

PRM

See Program Resource Manager and SEER Class 60.

PRM_CONTROL

This operating system is a program management utility (ETAS level).

PRM_PKG

See Program Resource Manager Package (ETAS level).

Program Resource Manager

PRM is a program which handles the loading, unloading and program error recovery for all Meridian Mail software except for those programs initiated from CLI shells. See SEER class 60.

Program Resource Manager Package

PRM_PKG is a utility package that provides access to the PRM commands from a CLI shell. This utility package allows the designer to control system resources.

Property Management System Interface

PMSI is the protocol used to communicate between a third party PMS system, Meridian Mail, and the Meridian 1 (or another) switch. *See* also SEER Class 71.

PUP

Program Utility Package; controls access to TOOLS, RSC and ETAS level utilities

RAM

Random access memory

rc

See return code.

Remote Make Busy

RMB is a channel condition when the corresponding agent on the PBX side is Maintenance Busy.

Remote Notification

RN is the process of calling a phone or paging service to indicate to a user that a new message is waiting in their mailbox. *See also* SEER class 93 for further information.

Remote Notification Service

RNS completes the RN process by indicating to the called party that a message is waiting in their mailbox.

Remote Task ID

A Task ID is a 32 bit value that uniquely identifies a Task (for example, a MM program) running on a node within Meridian Mail. A Remote Task ID (RTID) has 32 extra bits added, to uniquely identify the node.

restart

This is a startlist entry of a restart option. PRM restarts the program if it terminated with an exception. PRM does not restart the program it if terminated properly.

return code

rc is a code passed from the lower layers of software to the VFSU indicating the status of the operation that was requested by the VFSU. In most cases this return code will identify a problem which occurred at a lower level.

Return to Service

RTS is switch terminology to enable a device.

RMB

See Remote Make Busy.

RN

See Remote Notification and SEER class 93.

RNS

See Remote Notification Service.

RSC

Regional Service Craftsperson

RSM

RS-232 Service Module (SEER class 63)

RTC

This refers to Real time clock.

RTID

See Remote Task ID.

RTS

See Return to Service.

RVS

Remote Voice Services (Class SEER109)

SBC

Single Board Computer, a printed circuit pack (also known as ESBC)

schedule

This program is a startlist entry. It is started when another program requests the PRM to start it.

SCSET

Silence Compression setting utility (TOOLS level)

SCSI

See Small Computer System Interface.

SE_PKG

See SEER package.

SE_UTIL

SEER utility (RSC level)

SEER

See System Error and Event Report

SEER package

SE_PKG is a utility package to read and manipulate system error and event reporting. Ususally the MMI is used to access SEERs instead of SE_PKG.

Service

SVC is its acronym. This program, which is a startlist entry, provides service to a single user.

Service Peripheral Module

The SPM is the Meridain Mail hardware configuration that is capable of providing up to 192 voice ports.

Shell state

The current state of the software that runs on the voice channel (Class 27 SEERs). See Appendix A, SEER class 27.

siteid

In a networking environment, each site needs to be identified by all other sites. This is the site id that is kept in the network database, and as part of a user's boxAddress. On the local site, the siteid in the boxAddress is zero. *See also* SEER class 31 for more information.

SL-1

Meridian 1 telephone switch formerly marketed as the SL-1 telephone switch.

Small Computer System Interface

SCSI is an industry standard set of interfaces (electrical, connectors, protocol and command sets) for connecting and accessing peripheral devices such as disk and tape. All Meridian Mail disk and tape drives are SCSI drives.

SMDI

Simplified Message Desk Interface. *See* SEER Class 38 for further information on this communication software component.

SPM

See Service Peripheral Module.

SPN

This represents the Signal Processing Node.

SS

SEER Server (SEER Class 35)

Startlist

This is a list of software tasks to be started by the PRM.

Start of Text

STX is the start of a message. *See* also SEER class 71.

STX

See Start of Text and SEER class 71.

SVC

See Service.

Switching voice service

A process where one voice service requests the voice service shell (VSS) to start up another voice service. After the switching is completed, the original voice service completes on its own. For example, a voice menu service switches to voice messaging after the user has entered the menu choice for voice messaging.

System Error and Event Report

SEER is the standard reporting mechanism for system events and errors. A SEER typically consists of 2 or 3 lines describing the system problem and

its possible source. SEERs are saved in a file and are optionally printed on a designated printer.

SYNCCABINET

This command, which is part of the VSP_UTIL, re-associates voice service definition files with their DR entry. Files with no DR entries are moved to the field support cabinets for further investigation.

T1FN

This refers to the T1 Interface Node.

T1LH

This refers to the T1 Link Handler.

TASKID

This is a unique identifier assigned by the operating system to each task running in the system.

TASKRESULT

This is the task result code given by the Operating System for inter-task communication.

Telephony Voice Prompt Translation Module

VX is a library of routines that provides for the playing of a voice prompts. The library is in the unit VH_PROCS and it invokes the VPIO task. *See* SEER Class 21.

TELSCAN

The DSP module that monitors the state of an incomming line is called TELSCAN. The module monitors such things as off/on hook status, flash, ring detection, and line seizure.

THRUDIAL

When a person has dialed into Meridain Mail, they have the capability of placing an outgoing call from within their current Meridian Mail session without first hanging up. This is referred to as THRUDIAL.

thru-dialing service file

This contains information necessary to support a particular thru-dial service, for example, passwords, dial by name, number, or both, greeting recording, and so on.

TIC

Time in centiseconds between production of a SEER and the last reboot of Meridian Mail.

time of day service file

This contains information necessary to route calls to designated services based on the time of day in which the call is answered.

Timeout

TMOUT is the system response time that has extended beyond the time period allocated by the system software, for example, a certain task failed to complete within a given time interval.

timeslot

This is a slot of time within a frame allocated to a specific channel. The channel uses this allocated timeslot to play voice.

TIMESTAMP

This is an instantaneous view of the time of day.

TK

Voice Toolkit (SEER Class 51)

TKM

Toolkit Master (SEER Class 50)

TLAC

This refers to the Trouble locating and Alarm clearing document.

TMOUT

See Timeout.

TN

This refers to the Terminal Number.

TONEGEN

The TONEGEN command is used to request the VPH to dial digits for an outgoing call.

Traffic

A measurement of the number of incoming and outgoing calls at any given time.

TRF

This refers to traffic on the link.

UART

See Universal Asynchronous Receiver Transmitter and SEER class 71.

UAT

See User Administration Terminal and Multi-Administration Terminal feature.

UBC

This refers to the Universal Bus Controller Card.

UCD

See Uniform Call Distribution.

UI

User Interface (SEER Classes 101, 102 and 103)

Uniform Call Distribution

UCD is a Meridian Digital feature which allows calls to be evenly distributed to a number of predesignated stations known as UCD stations or UCD positions. This feature is used to queue incoming calls to the message desk.

Universal Asynchronous Receiver Transmitter

UART is the device that Meridian Mail uses to communicate with the PMS system and the Meridian 1 switch. *See also* SEER class 71.

unload

This is a startlist entry of a restart option. PRM does not reload the program after it terminates.

User Administration Terminal

UAT in Meridian Mail 10 is referred to as the Multi-Administration Terminal feature or MAT. *See* Multi-Administration Terminal feature.

VBLOCK

See Voice Block.

VCA

See Voice Channel Allocator and SEER Class 34.

VCI

See Voice Count Information and SEER Class 22.

VCM

See Voice Channel Maintenance module and SEER class 41.

VCM_PKG

This is the Voice Channel Maintenance module debugging package.

VFCI

See Voice Forms Caller's Interface and SEER Classes 43 and 111.

VFE

See Voice Form Editor and SEER Class 43.

vff

See Voice Form Information File cabinet and SEER Class 43.

vfr

See Voice Form Response cabinet and SEER Class 43.

VFS

See Voice Forms Services and SEER classes 43 and 111.

VFSU

See Voice Forms Service Unit and SEER Classes 43 and 111.

VFTS

See Voice Forms Tanscription Service and SEER Class 111.

VH

See Voice Handler Procedures Interface and SEER Class 20.

VLS

See Voiceless Server and SEER Class 58.

VM

See Voice Messaging and SEER Class 22 or Class 56.

VMAA

Voice Services Configuration/Voice Menus Applications Administration (VSC/VMAA) were former names for Voice Services Administration (VSA). See Voice Services Administration and SEER class 105 for more information.

VMU

See Voice Menu and SEER class 104.

VMUIF

See Voice Messaging User Interface Forum and SEER classes 22 and 56.

Voice block

VBLOCK is an 8k sized block of voice data.

Voice Channel Allocator

VCA is a voicebase software component. *See* SEER Class 34 for further information.

Voice Channel Maintenance module

VCM is the Meridian Mail component which performs maintenance commands on various based devices. *See also* SEER class 41 for further information.

Voice Count Information

VCI is a data message sent from Meridian Mail to a hotel's Property Management System computer. This message contains a count of the number of voice messages in a user's mailbox. *See also* SEER Class 22.

Voice/Fax Handler VPH Interface

VPIO provides an interface between the application layer and the VPH layer. *See* also SEER Class 24.

Voice Form Editor

The VFE is an MMI overlay which allows the administrator to create and maintain Voice Form definitions. See SEER Class 43.

Voice Form Information File cabinet

vff is a cabinet on volume "InfoVol" where the Voice Form Information files are stored. See SEER Class 43.

Voice Form Response cabinet

vfr is a cabinet on all user volumes on a Meridian Mail system. It is where the responses left by a VFCI session are stored.

voice form service file

This file contains information necessary to support a particular voice form service.

Voice Forms Caller's Interface

The VFCI is a service that provides the telset interface to allow a caller to dial into a Voice Form and leave a response. *See* SEER Classes 43 and 111.

Voice Forms Service Unit

VFSU provides both the VFCI and VFTS services. *See* SEER Classes 43 and 111.

Voice Forms Services

VFS is used as an umbrella term for VFE, VFCI and VFTS. This provides both the VFCI and VFTS services. *See* SEER classes 43 and 111.

Voice Forms Transcription Service

This VFTS is a service that provides the telset interface to allow the person responsible for transcribing Voice Form responses to retrieve the responses left by the VFCI. *See* SEER Class 111.

Voice Handler Procedures Interface

VH is a set of routines that provides access and control to voice records and voice segments. See SEER Class 20 for further information on this voicebase software component.

Voice Menu

VMU is a single piece of software that contains Announcements, Time-of-day services, and Fax Information Service (FIS). *See also* SEER class 104.

Voice Messaging

VM may refer to the Voice Messaging service or Call Answering, Express Messaging, Hospitality Voice Messaging, guest Voice Messaging, Post-Check-Out services, or the software which provides these services. *See also* SEER Classes 22 and 56.

Voice Messaging User Interface Forum

VMUIF is an industry group responsible for describing a standard voice messaging user interface. VMUIF is also used to refer to the voice messaging user interface specified by this group. *See* SEER classes 22 and 56 as a further reference.

Voice Only Message

VOM is synonymous with a voice message.

Voice Only Messaging, Peripheral Processor handler

VOM_PP is the software component that manages the Peripheral Processors (also known as DSPs) in the Voice Messaging system.

Voice Port

All Meridian Mail features except for fax, use voice ports. A distinction is made between voice ports and Multimedia ports, since multimedia ports require additional processing capabilities.

Voice Processor card

VP generally refers to the voice processor cards (NVP, GSP, VP12, etc.). This is a generic term referring to any card that contains DSP chips and provides Meridian Mail voice ports.

Voice Processor Handler

The VPH or VPHDLR is a program that runs on all nodes in a system that contains Voice Processor cards. The VPH transfers messages between DSPs and applications, initiates data transfers to and from the disk, and performs 2500 set emulation for non-AML systems. *See also* SEER class 24.

Voice Processor Input/Output

VPIO is the task in the VSS that implements the Play Prompt, Record Voice, Transmit Fax commands, etc. called from application code like Voice Messaging, Voice Menus, and so on. The Application uses the VPIO indirectly by making calls to VX_PROCS, FH_PROCS and VH_PROCS.

Voice Prompt Maintenance

VPM is a voice service utility that allows users to update voice prompts for Voice Menus, Announcements and Thru-Dialers. It also provides a telephony interface to update these prompts. For further information, *see* SEER Class 107.

Voice service

A VS is any application that is started by the voice service shell (VSS).

Voice Service Shell

VSS is a software program that runs on every single voice channel in the system that provides Telephony interface to voice services such as Voice Messaging, Voice Menus, AMIS, and so on. *See also* SEER Class 27 for further information on this voicebase software component.

Voice service task

A software program that will run when a voice service is started.

voice services configuration

This term is no longer used in Meridian Mail 9. It was previously used to refer to an MMI menu to access CAT, VSDN table, and voice services profile.

Voice Services Directory Number

VSDN is a number associated with a particular service in the Voice Services DN table. These numbers are administered from the VSDN Table. A VSDN is the number dialed to gain direct access to a service.

Voice Services Administration

VSA was previously referred to as Voice Services Configuration/Voice Menus Applications Administration (VSC/VMAA). VSA is a collection of

administration forms and menus in support of the Voice Services Profile, Announcement Definitions, Thru-Dial Definitions, Time-of-Day Control Definitions, Voice Menu Definitions, the VSDN table, and if installed, Fax Item Definitions. *See also* SEER class 105 for further information.

voice-services cabient

This is a repository of voice services definition files.

Voice Services Configuration

Voice Services Configuration/Voice Menus Applications Administration VSC/VMAA) were former names for Voice Services Administration (VSA). VSC consisted of forms and menus in support of the Voice Services Profile, the VSDN table, and the Channel Allocation Table. In MM9, the Channel Allocation Table has been relocated to System Status and Maintenance to facilitate ease of use when administering DSP ports (or T1 channels on the MSM). S*ee also* SEER class 105 for more information.

Voice SoftKey

VS is a term used to describe an MMI screen object or key that can be used to call out to a DN for the purpose of playing or recording a voice prompt.

Voiceless Server

The Voiceless Server is a multiserver which provides responses to multiple requests. VLS supports multiple simultaneous sessions for updating customer screens.

Volume Server

The VS is a software program that runs when a voice service is started. It is a multiserver that arbitrates access to files and manages a list of free blocks. See SEER class 11.

Volume Server Mass-storage Utility Program

VSMUP (also called VS/MASI utility) is a combination of Volume Server and Mass-storage utilities that allows both of these functionalities to be exercised interactively by the user.

VOM

See Voice Only Message.

VOM_PP

See Voice Only Messaging, Peripheral Processor handler.

VP

See Voice Processor card.

VPD

Voice Processor Diagnostics (SEER Class 62)

VPE

See Voice Form Editor (SEER Class 43).

VPH

See Voice Processor Handler; same as VPHDLR. *See also* SEER Class 24.

VPHDLR

See Voice Processor Handler, same as VPH or VPHDLR. *See also* SEER Class 24.

VPIO

See Voice/Fax Handler VPH Interface and SEER Class 24. *See also* Voice Processor Input/Output.

VPM

See Voice Prompt Maintenance and SEER Class 107.

VS

See Voice SoftKey.

VS

See Volume Server and SEER Class 11.

VSA

See Voice Services Administration and SEER class 105.

VSC

Voice Services Configuration/Voice Menus Applications Administration VSC/VMAA) were former names for Voice Services Administration (VSA). See Voice Services Configuration and Voice Services Administration. S*ee also* SEER class 105 for more information.

VSDN

See Voice Services Directory Number.

VSH

See Voice Services Shell and SEER classes 22 and 56.

VSMP

This Volume server, software component is a utility package that allows the designer to do disk operations.

VSMUP

See Volume Server Mass-storage Utility Program. This is also called VS/MASI utility (ETAS level).

VSn

This is a semantics used to indicate a particular Volume Server where “n” is the volume number. Typical values for “n” are 1, 2, 202, 203, 204...

VSN

See Volume Server Mass-storage Utility Program. This is also called VS/MASI utility (ETAS level).

VSP_UTIL

This is a utility accessible from the ETAS level, that provides functions (PATCHDR, SYNCCABINET) to tidy the voice services cabinet.

VSProcs

This is the Volume Server procedural interface layer supplied by the Volume Server. Applications make use of the procedure interface to exercise Volume Server functionalities.

VSS

See Voice Service Shell and SEER Class 27.

VSS heap

This is system memory allocated for the VSS (Voice Base Service Shell). *See also* SEER Class 27.

VT

A terminal.

VX

See Telephony Voice Prompt Translation Module and SEER Class 21.

VX_INIT

This is one of the VX routines called by the application. It is usually called at the beginning of a session and is used to allocate memory.

warmstart

If the VCM completes unexpectedly, it will be started again. Anytime the VCM is started while the system is up, it performs a warmstart. During a warmstart, the VCM will collect information for known devices.

XCabinet

This is a type of Meridian Mail hardware platform. It is a free-standing non-modular hardware cabinet that can hold up to 5 Meridian Mail nodes.

XLA

This refers to Translation. It is used in the CO environment only.

NORTEL

Reader's Response Form for

Meridian Mail
SEER Reference Manual for Nortel Support, **555-7001-270**,
August **1995**

Tell us about yourself:

Name: _____ **Date:** _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

1. What is your level of experience with this product?

   ❑ New user ❑ Intermediate ❑ Experienced ❑ Programmer

2. How do you use this book?

   ❑ Learning ❑ Procedural ❑ Problem solving ❑ Reference

3. Did this book meet all of your needs?

   ❑ Yes ❑ No

   If you answered **No** to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

   _____

   _____

   _____

5. What information (if any) was missing from this book?

   _____

   _____

   _____

6. How could we improve this book? (For example, books can also be evaluated in many other ways, including: ease of information retrieval, presentation, and use of reading aids, such as diagrams.)

   _____

   _____

Please return your comments by fax to (416) 597-7104, or mail your comments to: Nortel Customer Documentation, Toronto Lab, 522 University Ave., 12th floor, Toronto, ON, Canada. M5G 1W7.

Meridian Mail

Meridian Mail

SEER Reference Manual for Nortel Support

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