



AT&T 365-340-702  
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# **DACS IV-2000 (256) Digital Access and Cross-Connect System IV-2000 Release 4.0**

## Commands and Messages

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## Preface

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### Purpose

The *DACS IV-2000 (256) Release 4.0 Commands and Messages* manual describes the input commands and output messages of Release 4.0 of the Digital Access and Cross-Connect System IV-2000 (256).

The command and message syntax for the DACS IV-2000 complies with the International Telegraph and Telephone Consultative Committee (CCITT) "Man-Machine Language (MML)" Red Book, Volume VI, as well as the TL1 language and messages specified in Bell Communications Research TR and TA specifications. The DACS IV-2000 supports the TL1, Issue 4, (previously refer to as Message Set 2<sup>1</sup>) which provides support for communication with Bellcore's Operations Systems/Intelligent Network Elements (OPS/INE) and Network Monitoring and Analysis (NMA) OSs.

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1. Message Set 1 is not supported for Release 3.0 and later.

## Audience

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This manual provides command and message information required to support off-site DACS IV-2000 administrators as well as on-site craft activities involved in the daily operation and maintenance of the Release 4.0 DACS IV-2000 (256) system.

If you require procedural information, refer to the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701). If you require physical and functional attribute information, refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700).

## Contents

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### ■ Chapter 1 - Introduction:

This chapter provides general information of the DACS IV-2000 input commands and output messages. This information consists of:

- A User Interface Model
- Format of Command and Message Listings
- Input Acknowledgment
- Allowable Commands for Various Main Controller States
- Addressing (Selecting circuit packs, DS1/DS3 ports, etc.)
- Interface Security
- Dialog Procedure for Entering Input Commands

### ■ Chapter 2 - Commands and Messages:

This chapter describes the input commands and their associated output messages of the DACS IV-2000.

### ■ Chapter 3 - Autonomous Messages:

This chapter describes the DACS IV-2000 generated autonomous messages.

### ■ Appendix A - Acronyms:

This appendix contains an acronym list for commands and messages, parameter names, state names, error codes, and DACS IV-2000 circuit pack names.

### ■ Appendix B - Activity Menu:

This appendix contains descriptions of the activity menus used in the MENU mode of operation.

■ **Appendix C - State Names and State Qualifiers:**

This appendix contains descriptions of the different states of the DACS IV-2000.

■ **Appendix D - Condition Types:**

This appendix contains a list of the valid Condition Types within the DACS IV-2000.

■ **Appendix E - User Privilege Codes:**

This appendix contains descriptions of the different User Privilege Codes (UCFC/UCAL pairs), and groups the input commands by UCFC/UCAL pair.

■ **Appendix F - Diagnostic Tests:**

This appendix contains descriptions of the various DACS IV-2000 component diagnostic tests.

■ **Appendix G - Monitored Parameters:**

This appendix contains information of the various monitored parameters the DACS IV-2000 can monitor (for example, default threshold values).

■ **Appendix H - Command Verification:**

This appendix contains lists of input commands that require you to verify before they can be executed. If these commands are used without care, service can be affected.

■ **Appendix I - Provisionable Parameters:**

This appendix contains a list of the system parameters that are provisionable by the user. Included is the name of the parameter, the default value, range of allowable values, and the command used to provision the parameter.

■ **Appendix J - State Diagrams:**

This appendix contains state diagrams of the various DACS IV-2000 components.

In addition, a fully cross-referenced index is located at the end of this document.

## **Conventions**

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This manual uses special fonts in order for you to differentiate computer input/output. The following fonts are used:

- `constant width font` — indicates message formats, parameters associated with message output, specific values of output responses, and frame generated responses/messages.

- **constant width bold** font — indicates command names, parameters associated with command input, specific values of command input, and user responses to frame output.
- **bold face** font — indicates a reference to a section title within this document or other DACS IV-2000 documents or a term or parameter that is being defined.

## Related Documents

The following documents provide additional information about the DACS IV-2000:

- *DACS IV-2000 (256) Release 4.0 Installation Procedure Handbook*, document number AT&T IPH 905  
This document provides installation instructions for installing or upgrading the DACS IV-2000 equipment
- *DACS IV-2000 (256) Release 4.0 Reference Manual*, document number AT&T 365-340-700  
This manual provides in-depth DACS IV-2000 information for network planners and engineers.
- *DACS IV-2000 (256) Release 4.0 Operations and Maintenance*, document number AT&T 365-340-701  
This manual provides provisioning, operation, maintenance, alarm clearing, and acceptance procedures.
- *DACS IV-2000 (256) Release 4.0 Quick Reference Job Aids*, document number AT&T 365-340-703  
These are laminated sheets containing command names, error codes fuse locations, and test access and addressing.
- *DACS IV-2000 (256) Release 4.0 Applications, Planning, and Ordering*, document number AT&T 365-340-704  
This guide is designed for network planners and engineers, and contains the DACS IV-2000 features, applications, and ordering information.
- *DACS IV-2000 (256) Release 4.0 Software Release Description*, document number AT&T 365-340-705  
This document contains upgrade procedures for the new software release, status of problems fixed in previous releases, and operating issues for the specified software release. This document is not orderable as a stand-alone item; it accompanies the software release only.

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## Introduction

# 1

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The DACS IV-2000 (256) provides a user interface that allows you to issue commands to control system operations. This same user interface provides a mechanism that outputs messages alerting you of any changes in the status (for example, equipment failure reporting and database updates) of the DACS IV-2000. The DACS IV-2000 supports the TL1, Issue 4, (previously refer to as Message Set 2<sup>1</sup>) which provides support for communication with Bellcore's Operations Systems/Intelligent Network Elements (OPS/INE) and Network Monitoring and Analysis (NMA) OSs.

This manual presents a complete set of input commands and output messages for the DACS IV-2000. The commands and messages in this manual are designed for use with the MML/ASCII message link (known as an administrative link).

This chapter consists of the following information:

- Explanation of the user interface model
- Description of the input command and output message formats (contained in Chapters 2 and 3)
- Description of the input command acknowledgment responses
- Explanation of addressing rules and parameter grouping
- Explanation of the interface security
- Description of the dialog procedure for entering input commands

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1. Message Set 1 is not supported for Release 3.0 and later.

## User Interface Model

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The format of the DACS IV-2000 input commands and output messages follows the CCITT MML Standards and recommendations from Bellcore. The craft dialog procedure used to enter input messages follows the methodology given in Bellcore TA-TSY-000204 (*Craft Interface for Network Terminal Equipment*, December 1984).

Output messages can either be in response to an input command (manual response) or report a change in the state of the system due to autonomous actions (autonomous messages). Manual responses fall into two categories:

- Normal responses indicating completion of the input command, including data associated with the completion of the command.
- Error responses indicating that the command was not successfully completed, including information giving the reason for denial.

Output messages have two different formats, one for human-machine sessions and one for machine-machine sessions. In Chapter 2 (**Commands and Messages** listings) and Chapter 3 (**Autonomous Messages** listings) only the machine-machine output messages are presented. The difference between these two formats and the relationship between them are covered in the section describing output message formats.

## Human-Machine and Machine-Machine Provisioning

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The DACS IV-2000 can interface over its administrative links with either a human (craft person) or a machine (generally an OS computer). These are known, respectively, as the human-machine and machine-machine interfaces to the DACS IV-2000.

### Dialog Mode

Associated with each user (User ID) in the DACS IV-2000 is a parameter called *Dialog Mode* (**DMODE**). The value of this parameter determines whether a particular session with the system is handled as human-machine or machine-machine. If you are in the **MENU** mode (described in the appendix on Activity Menu), you have a human-machine session. If you are in the **COMMAND** mode (described in the Dialog Procedure for Entering Input Commands section), you have a machine-machine session.

### Message Screening

There are two message screening parameters that you can set. One governs the amount of information that is sent over a link when no one is logged into the DACS IV-2000, and the other governs the amount of information that is sent to a

user that is logged into the DACS IV-2000. You can provision each link for a message screening value, and each user for a message screening value. These values need not be the same. Virtual circuits associated with a link all share the same message screening value. The value of the message screening that is set for a user overrides the value set for the link when a user logs into the DACS IV-2000 (that is, the link takes on the value set for the User ID). If you log into the DACS IV-2000 over a virtual circuit and the other virtual circuits of that link have no one logged in over them, your value of message screening is used and the other virtual circuits continue to use the value of message screening defined for the link. The **ENT-SECU-USER** or **ED-SECU-USER** commands are used to set the user message screening values, and the **ED-PRMTR-LINK** command is used to set or change the link message screening value.

Below is the list of message screening values and their definitions:

- **INPUT** - specifies that the User ID (UID) receives responses to its own input messages.
- **AUTO** - specifies that the UID receives responses to its own input and autonomous messages except REPT DBCHG messages due to manual command input.
- **ALL** - specifies that the UID receives responses to its own input messages, autonomous messages except REPT DBCHG messages due to manual command input, and responses to input messages from other UIDs.
- **DBAUTO** - specifies that the UID receives responses to its own input and autonomous messages including REPT DBCHG messages due to manual command input.
- **DBALL** - specifies that the UID receives responses to its own input messages, autonomous messages including REPT DBCHG messages due to manual command input, and responses to input messages from users (UIDs) links.

### Command Verification

Each UID is assigned a user type, either Human or Machine. This user type is checked after you have entered a command. If the command is potentially service-affecting or may prevent access to the DACS IV-2000 for an extended period of time and the user type is Human, the DACS IV-2000 displays a warning message and requests that you verify the command. This warning message is displayed in both Menu and Command Dialog Modes. The warning message is not displayed if the user type is Machine. The warning message is placed in the Review of Parameter Responses menu after the parameter responses and before the EXECUTE COMMAND? [YES/NO/MODIFY] prompt. For a list of the commands which receive warning messages, see the appendix on Command Verification.

## Flow Control

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The DACS IV-2000 flow control initiated by a DC3 (cntrl-S) stops output from being transmitted over the administrative link it was received over for 30 seconds. If 30 seconds pass and a DC1 (cntrl-Q) has not been received, the DACS IV-2000 autonomously continues to transmit its output. In addition, the DACS IV-2000 does not recognize another DC3 received over that link until the pending output has been completely transmitted.

## Format of Command and Message Listings

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Chapter 2 contains entries that describe all of the input commands (along with their responses). Chapter 3 describes the autonomous output messages. This section defines the structure of these entries and describes the information contained within the entries.

The input commands and output messages presented in Chapters 2 and 3 consist of the following parts:

- **Command Name or Autonomous Message Name** — centered on the top of the first page on which the command/autonomous message starts.
- **Input Format (Output Format for autonomous output messages)** — showing the syntax and parameter location of the input command or output message.
- **Command Header** — listing the long name of the input command, the command category, the User Privilege Code (UCFC/UCAL), if the input command is abortable, and if the input command changes the database.
- **Purpose of the Command or Message** — stating what the function of the input command or output message is.
- **Input Parameter Descriptions** (not contained in autonomous messages) — listing the parameters that can be used with the input command.
- **Output Message Response** (not contained in autonomous) — showing the normal and error responses to the input command.
- **Normal Response** (not contained in autonomous messages) — showing the syntax and parameter location of the output message indicating normal completion.
- **Error Response** (not contained in autonomous messages) — showing the syntax and parameter location of the output message indicating an error was encountered.
- **Output Parameter Descriptions** — listing the parameters that are shown in the output message.

### Command Name (Autonomous Message Name)

Specifies the command or autonomous message that is contained in the listing. Curly braces ({} ) enclose different signal types that are described in combined command and autonomous message listings. For example, the command listing **RTRV- {EC1 | T1 | T3 | VT1}** (the OR character [|] divide the command name by the different signal types) contains the description of the **RTRV-EC1**, **RTRV-T1**, **RTRV-T3**, and **RTRV-VT1** commands. The command/autonomous message listings call out information associated to a specific signal type by preceding a block of text with the signal type [for example, **(EC1)**: preceding text indicates the information is specific to EC-1 Ports/STS-1 signals only].

### Input Format (Output Format for Autonomous Messages)

For autonomous messages, the output format is similar to the format described in the section titled **Normal Response** later in this chapter. The following exceptions apply for the autonomous message output format:

- M (manual input indicator) is replaced with the alarm indicator (\*C - critical, \*\* - major, ^ - minor (where ^ indicates a space), or A^ - no alarm or autonomous report on program fault function execution)
- A 3-digit autonomous message sequence number appears before the verb (REPT).

The input format is the full input command as it appears if entered on one command-line (that is without the aid of prompts and menus, also known as the command-line mode). Brackets [...] indicate information that is optional (for example, parameters that are not required in all instances of a specific command). Also, syntax characters (, ; and ;) can be optional, but no brackets are used in the message entry to indicate that they are optional. Below is the format of a DACS IV-2000 input command:

**<command code>:<parameter block>: ... :<parameter block>;**

*Parameter blocks* are used to group logically connected parameters within the same command. A parameter block always follows a colon and contains a list of parameters separated by a comma. A parameter block contains either:

- **Position-defined Parameters.** Parameter values are presented in a pre-defined order and position within the parameter block. Two parameter values are separated by a comma. When the parameter is omitted, a comma separator is needed to indicate the position of the parameter. In input commands, positional parameters are either required or optional. Optional positional parameters are indicated in each command by being enclosed in brackets ( []). When an optional positional parameter is omitted, the system assumes a default value or does not perform the action associated with the parameter, depending upon the specific function and parameter.

- **Name/Keyword-defined Parameters.** Every parameter entry must have a parameter name and value ( $P1=value$ ). Parameter defaulting is done by simply omitting a parameter entry altogether. This is particularly useful when you choose to execute a limited number of functions from a large selection. All name-defined parameters are optional. Parameters of this type are shown within the less-than (<) and greater-than (>) signs in the input or output format line.

The DACS IV-2000 commands can contain both position- and keyword-defined parameter blocks.

If one or more optional parameters are omitted from the end of a command, the trailing commas and/or colons associated with them can be omitted. However, if an optional positional parameter is omitted with other positional parameters following, all of the intervening commas and/or colons must be given to indicate that no value is being given. No commas are needed if a name-defined parameter is omitted.

⇒ **NOTE:**

Some input commands contain seven trailing commas, which are used by NMA and OPS/INE Operations Systems. Since these commas constitute trailing syntax, they are optional and can be omitted when entering a command.

A semicolon (;) is required at the end of the input command. If a carriage return <cr> is entered before all required or optional parameters are inputted, you receive a denial message (Command Mode) or are prompted for additional data (Menu Mode).

## Command Header

The header of the input commands or Autonomous Messages contains the following information:

- **Command Name:** - Long name associated with the input command or autonomous message listed at the top of the page (all commands and messages along with their associated names are listed in the appendix on Acronyms).
- **Command Category:** - Functional area in which the command code falls (Provisioning, Test Access, System Maintenance, Administration, or Performance Monitoring).
- **User Privilege Code (UCFC/UCAL):** - UCFC/UCAL pair(s) for the input command (see the appendix on **User Privilege Code** for more information on UCFC/UCAL pairs). This line appears only in the Chapter 2 listings.
- **Abortable:** - Yes or No indicating whether or not the command is abortable via **ABT-CMD**. This line appears only in the Chapter 2 listings.

- **Database Changed:** - Yes or No indicating whether or not the command is reported by the REPT DECHG message (this occurs when the command has caused some change in the system's database). This line appears only in the Chapter 2 listings.

### Purpose of Input Command or Output Message

This section describes what the input command is used for. Also included are general notes concerning the input command.

### Description of Input Parameters

This section contains a *parameter description block* for each parameter that can be used in the input command. A parameter description block consists of the following information:

- Parameter identifier, parameter name, and parameter domain (see description in this section for details).
- Default value of the parameter if you omit it from the input command.
- Initial system value of the parameter. This value is given to the parameter upon system initialization.
- Addressing rules that apply to the parameter (see the section titled **Addressing** later in this chapter for details).
- Description of how the parameter is used in the input command.

In the *parameter identifier* section, one of two formats is used to give the name and domain of each parameter:

```
parameter      parameter_name:  
                {parameter domain definition}, or  
                name/keyword={parameter domain definition}  
  
parameter      parameter_name:  
                <parameter domain description>, or  
                name/keyword=<parameter domain description>
```

Where:

- **parameter** — is one or two lowercase alpha-characters (a-z,aa-zz), which is used in the input format for notational convenience.
- **parameter\_name** — is the name of the parameter associated with the alpha-character in the input format.
- **parameter domain definition** or **name/keyword=parameter domain definition** — uses braces ({} ) to enclose a definition of the exact domain of the parameter, with discrete values separated by commas, and ranges of values separated by hyphens. For example, { MC, UC, DS3PM } indi-

icates a domain of three discrete values. Another example, `UNIT- {1-32}` indicates a domain of 32 values, from `UNIT-1` to `UNIT-32` (the hyphen outside of the braces is a literal character in the value, used to separate the information units of the parameter value). Braces can be nested (for example, `{ MC, UNIT- {1-32} }` indicates the same domain as above with the `MC` added). In the special case of a parameter that has only one value in its domain, the braces can be omitted (for example, `MC`). When a parameter is enclosed in the less-than (<) and greater-than (>) signs on the input or output format line, the parameter is a *name/keyword-defined* parameter (refer to the section titled **Input Format** earlier in this chapter). The parameter keyword appears on the left of the equal sign (=) and the parameter domain definition appears on the right of the equal sign (no spaces are on either side of the equal sign).

- **parameter domain description** or **name/keyword=parameter domain description** uses less-than and greater-than signs (<>) to enclose a description of the parameter domain when this is more understandable than an exact definition (for example, `<1-18 LEGAL CHARACTERS>`). In some cases, the description refers to the explanatory text that follows. As in the case with parameter domain definitions, parameters enclosed with <> in the input or output format line are name/keyword-defined parameters (see above description).

Some parameters, passwords, CTAGs, and TIDs for example, do not have explicitly defined values. You define them according to your needs selecting from acceptable sets of ASCII characters. These sets are referred to as *legal characters*. All legal character sets contain uppercase and lowercase letters and the 10 digits (A-Z, a-z, 0-9).

**⇒ NOTE:**

With the exception of the TRANSID identifier, no distinction is made between uppercase and lowercase letters by the DACS IV-2000 (256); they can be used interchangeably, as all characters are converted to uppercase letters internally.

The following identifiers contain additional legal characters:

Identifier	Special Legal Character(s)
CTAG (Correlation Tag)	-
TID (Target ID)	+ - # %
UID (User ID)	- . # % +
PSWD (Password)	# % +
TRANSID (Transport Self Identification)	+ - # % .
Path Trace	@ # \$ % & * ( ) +   - ' [ ] { } ' . / < >

### Output Message Response

The output message response is a message sent from the DACS IV-2000 over one or more administrative links in response to an input command or in response to an autonomous change in a DACS IV-2000 state. In the first case, the output message reports whether or not the input command was completed and can contain other information pertinent to or requested by the input command. The second case is called an *autonomous message*, and it serves to report information on system state changes (including alarms and other trouble indications) to you.

Output messages consist of one or more message segments. These segments follow the following format:

- Header Line
- Primary line
- Zero or more secondary lines.

Each segment is terminated by either a semicolon (;) or a greater-than sign (>). The greater than sign is used to terminate all but the last segment of a multisegment output message, while the semicolon is used to terminate the last (or only) message segment. Segments typically have eight secondary lines but some commands may have ten.

## Normal Response

---

### Normal Response - Machine-Machine

The following is the format of a normal response message segment when you are provisioned for machine-machine responses (COMMAND Dialog Mode). The first two lines (header and primary) are in every normal response message segment. The remainder of the lines are command-dependent secondary lines.

```
TID YY-MM-DD HH:MM:SS
M CTAG COMPLD
  "fixed-format text"
  .
  .
  "fixed-format text"
[ /*free-format text */]
<terminator>
```

where <terminator> is either:

- > - end-of-segment terminator
- ; - end-of-message terminator

In the header line of all responses there are three fields:

- **TID** - is the target identification code for the DACS IV-2000, which can be up to 18 characters in length.
- **YY-MM-DD** - is the year-month-day, where YY is the last two digits of the year, MM is the month, and DD is the day of the month.
- **HH:MM:SS** - is the current time of day. The range of HH is from 00 to 23, while MM and SS each range from 00 to 59.

The primary line starts with the letter M, which indicates that this is a response to a manual input command. The remainder of the primary line is an echo of the CTAG and a Termination Report Code. For a normal response, the Termination Report Code is normally COMPLD to indicate that the command was completed. Some commands use the Termination Report Code PRTL to indicate that the command was partially completed. Use of this code is documented in the associated command entries. The command-dependent secondary lines are of two types:

- **Fixed-format** - lines are surrounded by double quotes ("). These lines contain data generated by the system and are set up to be parsed by a machine.
- **Free-format** - lines are surrounded by comment delimiters (/ \* and \*/). These lines are meant to provide useful information to a human in understanding the data contained in the fixed-format lines. Name-defined parameter blocks are surrounded by < and >.

Fixed-format text strings have the following format:

```
" [EID]:[identifier=value][,identifier-value]..."
```

Where:

- **EID** - is the entity ID. The EID parameter contains the information about the physical description and logical address of the system entity. There are three domains currently available within the EID parameter (equipment, facility, and link).
- **identifier** - is the name of the parameter.
- **value** - indicates the present system value assigned to the specified identifier.

Free-format lines may be intermingled between the fixed-format lines in some messages to add clarity.

### Normal Response - Human-Machine

The following is the format of a normal response message segment when you are provisioned for human-machine responses (MENU Dialog Mode). The first two lines (header and primary) are in every normal response message segment. The remainder of the lines are command-dependent secondary lines.

```
TID YY-MM-DD HH:MM:SS
M verb modifier[ modifier]::Entity:CTAG:[func-dependent parms] COMPLD
/* free-format text */
"fixed-format text"
.
.
.
"fixed-format text"
[ /* free-format warning message */]
<terminator>
```

where <terminator> is either:

- > - end-of-segment terminator
- ;- end-of-message terminator

The primary line starts with the letter M, which indicates that this is a response to a manual input command. The remainder of the primary line is an echo of the input command, except that the hyphens between the verb and modifiers are replaced by spaces. The TID is omitted (since it is given in the header line), and a Termination Report Code is appended to the end of the line. The brackets around the modifier is given to indicate that not all input commands use two modifiers. For a normal response, the Termination Report Code is normally COMPLD to indicate that the command was completed. Some commands use the Termination Report Code PRTL to indicate that a command was partially completed. Use of this code is documented in the associated command entries.

Whenever secondary lines appear in a normal response message segment, there is usually at least one other free-format line showing the layout of the fixed-format lines that follow. Other free-format lines may be intermingled between these fixed-format lines in some messages to add clarity.

## Error Response

---

### Error Response - Machine-Machine

The following is the format of an error response message segment when you are provisioned for machine-machine responses (COMMAND Dialog Mode). The first three lines (header, primary, and error code) are in every error response message segment. The last line is a command-dependent secondary line.

```
TID YY-MM-DD HH:MM:SS
M CTAG DENY
  ERRCDE
[ "<parsable text string>"]
[ /* free-format text */]
;
```

The machine-machine error response is similar in form and content to the normal response. The header line is exactly the same as in the normal response and the primary line only differs in the result indication (`DENY` in place of `COMPLD` to indicate that the command was not executed or terminated). The first secondary line contains one parameter `ERRCDE`, which is a 4-character error code. This error code describes the reason for the denial of the command. The parsable text string is an additional line of information which can be printed in the error response messages to clarify and supplement the error code. It provides you with detailed information about the failure of the transaction attempted.

If the input message addresses multiple entities, the whole input message is denied unless the function can be performed on all addressed entities, with the exception of functions that only retrieve information. In these cases, the input message is only denied if all entities in the range do not have retrievable information associated with them. If some entities do and some do not, the latter are simply skipped over in the normal response.

### Error Response - Human-Machine

The following is the format of an error response message segment when you are provisioned for human-machine responses (MENU Dialog Mode). The first three lines (header, primary, and error code) are in every error response message segment. The last line is a command-dependent secondary line.

```
TID YY-MM-DD HH:MM:SS
M verb modifier[ modifier]::Entity:CTAG:[func-dependent parms] DENY
  ERRCDE
[ "<parsable text string>"]
;
```

The human-machine error response is similar in form and content to the normal response. The header line is exactly the same as in the normal response and the primary line only differs in the result indication (`DENY` in place of `COMPLD` to indicate that the command was not executed or terminated). The first secondary line contains one parameter `ERRCDE`, which is a 4-character error code. This error code describes the reason for the denial of the command. The parsable text string

is an additional line of information which can be printed in the error response messages to clarify and supplement the error code. It provides you with detailed information about the failure of the transaction attempted.

### Description of Output Parameters

The format of the information in this section is the same as given under Description of Input Parameters.

### Input Acknowledgment

In response to an input command the DACS IV-2000 sends an input acknowledgment. The different possible input acknowledgments are listed in Tables 1-1 and 1-2.

Table 1-1. **Input Acknowledgments**

Acknowledgment	Description
NA	Under abnormal conditions, NA is printed when a command has been accepted by the parser but control of processing has been lost, making correct acknowledgment impossible. For example, when the ECI6 has detected a LAN failure.
NG	Command form is good but conflicts with current system status. For example, when the MC is in the OOS-MCOND state and the command is a provisioning command.
PF	Printout follows is output when a command is accepted and is being processed. An output message is sent describing the result of the command after processing.
RL	Retry command later. The requested action cannot be executed now due to unavailable system resources. For example, the input buffer is full.

Table 1-2. Error Input Acknowledgments

Acknowledgment	Description
?E	Error in command, cannot be identified as either ?V or ?D.
?P	Parity error occurred in the input.
?T	The time between characters exceeded time-out threshold while system was in the input or input idle state.
?X	Command interrupted, in response to a cancel from you during system input.

**Note:** The error input acknowledgments ?D and ?V, which were supported in Message Set 1, are not supported in Release 4.0 of the DACS IV-2000 software.

Normally, 128 manual commands can be entered before you get an `RL` instead of a `PF`. An exception to this rule is when you enter the `RTRV-EQPT` command, which is counted as 4 commands by the system.

If either `NA` or `RL` is sent as an input acknowledgment, no output message response is sent. Also, if the input command itself is in error the input acknowledgment indicates this fact and no output message response is sent.

Errored input acknowledgments are not expected on machine-machine sessions. If an error does occur in the input message and the `CTAG` cannot be retrieved from the input, the errored input acknowledgment is sent out with a null `CTAG`.

The `NA` input acknowledgment must not be confused with the Notification Code `NA`, which indicates No Alarm. No Alarm means that the appropriate DACS IV-2000 MML message is sent over the administrative links, and appropriate AS&C points are set. In this case, the MML message's `ALMCDE` (alarm code) is `A`. No office alarm is triggered (that is, relays are not energized) and the DACS IV-2000 Major, Minor, and Critical lamp indicators are not lit.

## Allowable Commands for Various Main Controller States

---

Most system functions are not allowed when the MC is not in service. The `ABT-CMD` and `RTRV-PRMTR-SFTWR` commands can be performed regardless of the state of the MC. Certain functions, however, either can be performed with the MC out of service, or require the MC to be out of service to be performed.

The following commands are allowed when the MC is in the associated state below:

### ■ OOS-FLT state

- `DGN-DET-EQPT` (on MC and MC subentities); MC subentities include: `CPU-{0,1}`, `UI`, `MTC-{0,1}`, `SSC-{0,1}`, `PRI-{1,2}`, `SEC`, `ECl-{1,2}`, `SCI-{1,2}`, `CC-{0,1}`.
- `INIT-SYS` (Initialization Level 9)
- `RTRV-CMD-STAT`
- `RTRV-STATE-EQPT` (on MC)
- `RST-EQPT` (on MC)

### ■ OOS-MTCE state

- `DGN-DET-EQPT` (on MC and MC subentities); MC subentities include: `CPU-{0,1}`, `UI`, `MTC-{0,1}`, `SSC-{0,1}`, `PRI-{1,2}`, `SEC`, `ECl-{1,2}`, `SCI-{1,2}`, `CC-{0,1}`.
- `INIT-SYS` (Initialization Level 9)
- `RTRV-CMD-STAT`
- `RTRV-STATE-EQPT` (on the MC)
- `RST-EQPT` (on the MC, PRI, and SEC)
- `RMV-EQPT` (on SEC)
- `CPY-MEM` (see command entry for `CPY-MEM` details)
- `ED-EQPT` (on `PRI-{1,2}`, `SEC`, `MTC-{0,1}`, `SSC-{0,1}`)

### ■ OOS-MCOND state

- `DGN-DET-EQPT` (on MC and MC subentities); MC subentities include: `CPU-{0,1}`, `UI`, `MTC-{0,1}`, `SSC-{0,1}`, `PRI-{1,2}`, `SEC`, `ECl-{1,2}`, `SCI-{1,2}`, `CC-{0,1}`.
- `INIT-SYS` (Initialization Level 9)
- `RTRV-CMD-STAT`
- `RTRV-STATE-EQPT` (on the MC)
- `RST-EQPT` (on the MC, PRI, and SEC)

- 
- RMV-EQPT (on the PRI and SEC)
  - RTRV-SYSID
  - CPY-MEM (see command entry for CPY-MEM details)
  - SET-SID
  - ED-EQPT (on PRI-{1,2}, SEC, MTC-{0,1}, SSC-{0,1})
  - TEST-SW-CONTROL
  - TEST-UNIT-CABLE

## Addressing

---

Within the input commands, there are two different levels of addressing. The first level consists of the target identifier (TID) parameter, and the second level is the entity identifier (EID) parameter.

### TID Addressing

---

The TID uniquely identifies the target DACS IV-2000. This parameter is set by the input command `ED-NE`. It can optionally be specified in any input command, and is always printed out on all output messages. The 11 character CLLI<sup>1</sup> code is the recommended value for the TID. If the CLLI code for a DACS IV-2000 is not unique, the CLLI code can be augmented with additional characters for a total of 18 characters. If communications are point-to-point between you and the DACS IV-2000, the TID is not necessary.

### EID Addressing

---

The values for EID follow the format rules given for parameter values in the section titled **Description of Input Parameters** earlier in this chapter. The EID parameter has three domains: equipment, facility, and link. For the most part, the equipment domain is used by command entries whose names end with the `EQPT` modifier, the facility domain is used by command entries whose names end with the `EC1`, `T1`, `T3`, `STS1`, or `VT1` modifier, and the link domain is used by command entries whose names end with the `LINK` modifier. However, there are some command entries that allow mixing of these domains.

---

1. COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Bell Communications Research, Inc.

Within the messages, for those parameters which are not EID parameters, the addressing rules are not relevant and therefore the Addressing Rules field is specified as *None*.

Addressing of the equipment domain is a combination of a physical description and a logical address. The first component of the address is the physical description (SSC, SCI, etc.). If necessary, a hierarchic logical address is appended to the physical description.

Addressing within the facility domain also follows a hierarchic scheme, which is shown in Table 1-3.

Table 1-3. EID Facility Addressing

Facility	Address {unit number}-{slot number}-{port number}
DS1 Port	{1-32}{1-31}{1-28}
DS1 Interface Module DS1 Port	{1-32}{1-8}{1-28}
DS1 Interface-P Module DS1 Port	{1-32}{1-7}{1-28}
DS3 Interface-32 Module DS1 Port	{1-32}{1-31}{1-28}
DS3 Interface-16 Module DS1 Port	{1-32}{1-15}{1-28}
DS3 Interface-32 Module DS3 Port	{1-32}{1-31}
DS3 Interface-16 Module DS3 Port	{1-32}{1-15}
STS1 Interface-16 Module VT1.5 Port	{1-32}{1-15}{1-28}
STS1 Interface-16 Module EC-1 Port	{1-32}{1-15}

The DS1 Ports are all DS1 signals that enter the system, either as a DS1, a DS1 within a DS3, or as a DS1 within a VT1.5. The DS1 Interface Ports are the subset of DS1 Ports that enter the system as DS1 facilities. The VT1.5 Ports are tributaries of the EC-1 Ports. The DS3 MUX Ports are DS3 facilities that enter the system. The EC-1 Ports are STS-1 signals that enter the system. DS1, DS3, EC-1, and VT1.5 Ports can also be addressed by module name (for example, DS1GRP, UNIT, VT1GRP).

DS1/VT1.5 Port addressing has the form:

{unit number}-{slot number}-{port number}

where:

- **Unit Number** — is the number of the interface module that supports the Port.

- 
- **Slot Number** (physical slot location occupied by a MUX, SMUX, or SWIF circuit pack) — is the DS3 or EC-1 equivalent within the interface module. The DS3 equivalent corresponds to either a MUX circuit pack that supports one DS3, or to a SWIF circuit pack that supports 28 DS1s. The EC-1 equivalent corresponds to the SMUX circuit pack that supports one STS-1. The range of numbers associated with these elements is related to the DACS IV-2000 (256) architecture.
  - **Port Number** (for DS1 Port and VT1.5 Ports) — is the DS1 within the DS3 equivalent or the VT1.5 within the STS-1 equivalent.



**NOTE:**

DS3/EC-1 Ports have the same form except the port number is omitted.

Leading zeroes are permitted when addressing equipment and facilities in a parameter (for example, MUX-01-05 and 16-07-12 are valid addresses).

Addressing within the link domain consists of a single format:

CILINK- { 1, 2 } - { 1-6 }, which indicates a physical link on the ECI circuit pack. A CILINK- { 1, 2 } - { 1-6 } is generically known as CILINK.

## Grouping of Parameter Arguments

In certain messages, EIDs and other parameters can be grouped so a single occurrence of a message can be applied to more than one entity or with more than one parameter value. When this grouping can be used, it is explicitly stated in the command entry (Chapter 2) under the **Addressing Rules** explanation.

## Format of Parameter Grouping

Parameter grouping can be done to generate a list of values or a range of values. The ampersand (&) character is used to generate a list, while the string && (double ampersand) is used to generate a range. A full description of how grouping is used is described in the CCITT MML specification. The DACS IV-2000 (256) supports a subset of this specification, with the following restrictions:

- A maximum of three grouping operators (& or &&) can be used for any given parameter value, with the exception of UCFC/UCAL pairs. For example, A&B&C&D is legal, but A&B&C&D&E is not.
- Specification of explicit increment using ++ for ranges is not supported. Only the default increment of one is used.

Only the last information unit in a compound parameter argument (that is, one that consists of one or more hyphens) can be used for ranges of parameter arguments. If a grouping of addresses is done so that the address may cause a potential error within an application program the complete message is denied. An example of a potential error caused by the grouping of addresses is address duplication (specifying the same entity twice within one EID).

A few examples of valid grouping are:

- The EIDs of the third and fifth DS1 Port (port number) in the second DS1 interface group (slot number) in the first Unit (unit number) are addressed as 1-2-3 and 1-2-5, respectively. For a single message to access both of these Ports or circuits associated with these Ports the EID grouping 1-2-3&5 can be used instead of sending the message twice. If the two Ports to be accessed were in different slots, the grouping takes on the appearance 1-2-4&1-3-8.
- If a contiguous set of Ports is needed, the && operator can be used. The && operator can only be used upon the last information unit in the address. As an example, all DS1 Ports within one DS1 interface group are addressed by the string 1-1-1&&-28.
- The & operator and the && operator can be mixed within a single message. For example, to address all the Ports within DS1 interface groups 3 and 7 by a single command, the EID string 1-3-1&&-28&1-7-1&&-28 is used.

An example of equipment grouping by name is `PRI&SEC`. Using this grouping, the command applies to the two equipment entities PRI and SEC as if two individual commands had been sent to the DACS IV-2000 (256).

For security parameters, the UCFC/UCAL pair is represented without a delimiter between the two parameters. This representation makes for easy assignment of multiple pairs to a single entity using the ampersand character. For example, an entity that has a UCFC of M and a UCAL of 3 is represented as M3. An example of multiple UCFC/UCAL pairs is M3&S4&P1&T3. Double ampersands are not supported for UCFC/UCAL pairs. Up to four single ampersands can be used.

## Rules for Parameter Grouping

Some special rules that apply to parameter grouping in the DACS IV-2000 are:

- There are three categories of commands that allow multiple addresses (discrete lists using & and ranges using &&). The first category allows multiple addresses for entities only if they have the same name, or first information unit. For example, commands in this category with both `MUX-{1-32}-{1-31}` and `DS1IF-{1-32}-{1A-8B}` in their domain allow multiple MUX or DS1IF entities to be specified but do not allow mixing MUX and DS1IF entities in the same command. The second category allows multiple addresses with any combination of entities that are valid for the command. A command in this category that includes the MUX and DS1IF in its domain allows mixing both types of entities (for example, the construct `MUX-1-1&DS1IF-2-1A` is allowed). There is also a third category of commands (those that do not allow multiple addressing; only a single entity can be specified). For simplicity, these three categories are referred to as *restricted multiple address*, *full multiple address*, and *single address* commands, respectively. The grouping rules for the DACS IV-2000 (256) input commands are summarized as:

- 
- If multiple addressing is used, it is stated in the command listing for each parameter (**Addressing Rules**) affected. If nothing is noted about multiple addressing, single addressing is used.
  - All EQPT and LINK commands that use multiple addressing only allow restrictive multiple addressing, except for the following, which allow full multiple addressing: EX-EQPT, RTRV-ALM-EQPT, RTRV-ATTR-EQPT, RTRV-COND-EQPT, RTRV-EQPT, RTRV-STATE-EQPT, RTRV-PRMTR-LINK, and RTRV-SECU-LINK.
  - When an addressing range is specified in a RTRV command, the DACS IV-2000 outputs any and all data requested as long as at least one entity can be reported. The DACS IV-2000 skips any entities that do not meet the criteria to be reported (for example, Unit not provisioned, DS3 Interface modules are in a range when DS1 data has been requested, etc.). If no entities' data can be reported, then the RTRV command either completes with a null response or it is denied.
  - When a range of facilities or equipment is specified in an ED or SET command, all of the facilities or equipment specified must be on provisioned circuit packs, or the command is denied.
  - For those EC1, STS1, T1, T2, T3, and VT1 commands that use multiple addressing, only restrictive multiple addressing is allowed.
  - In those EC1, STS1, T1, and VT1 commands which use more than one parameter in the EID block (such as ENT-CRS-T1, which uses a FROM Port and a TO Port), the structure of any multiple address argument (with respect to the use of & and &&) must be the same for each parameter. For example, if the FROM parameter is 1-1-8&&-14&1-2-7, the TO parameter must also be in the form a-b-c&&-d&f-g-h, with the range between c and d equal to 7 (same as the range between 1-1-8 and 1-1-14).
  - In multiple addressing, an overlap is not allowed in addresses with the same name (that is, the same equipment type or the same facility type). For example, RTRV-CRS does not allow the address construct 1-1-1&&-7&1-1-5. Overlap is allowed if different equipment types are specified together. In addition, multiple addressing does not allow equipment and facilities to be specified together, regardless of overlap.
  - MUXP and SMUXP circuit packs are not allowed in a multiple address; therefore, an address such as MUXP-1&&-32 is denied.
  - The DS1IF circuit packs have an unusual address structure. They are labeled in pairs as pack A and pack B, with each pair associated with a SWIF circuit pack. For example, associated with SWIF-3-4 are DS1IF-3-4A and DS1IF-3-4B, and associated with the protection pack SWIF-6-P are protection packs DS1IP-6-1A and DS1IP-6-1B. In order to allow range functions over an entire Unit, the last element of the DS1IF address is treated as a single value with a continuous range as follows: 1A, 1B, 2A,

2B, 3A, 3B, 4A, 4B, 5A, 5B, 6A, 6B, 7A, 7B, 8A, 8B. For example, `DS1IF-3-2B&&-4A` refers to the four DS1IF packs in Unit 3 with the last elements 2B, 3A, 3B, and 4A. 8A and 8B are only recognized for a DS1 Interface Module with no protection (the domain is 1A-8B for this type of interface module, and 1A-7B for a DS1 Interface Module with protection) and the protection packs are never included in the range.

- In some commands, all of the entities associated with another entity that is above them in the addressing hierarchy can be addressed by specifying the higher entity. For example, in the `RTRV-CRS-T1` command, all of the DS1 Ports within an interface module (unit) can be addressed by addressing the interface module itself, and Ports in multiple interface modules can be addressed via the grouping operators (& and &&). Therefore, all of the DS1 Ports in the system can be addressed by using `UNIT-1&&-32`. The entries which support this kind of addressing indicate this as part of the EID parameter description in the command entry.
- In general, when parameter grouping is used, the system denies any command that changes the system database if it cannot be performed for all of the specified entities. In these cases, the reason for denial applies to the first entity in the group for which the command was not performed.
- Grouping of parameters does not allow equipment and facilities to be mixed together.

## Interface Security

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### User ID (UID)/Password

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To allow access to the DACS IV-2000, the system administrator creates valid UIDs (logins) and their associated passwords. These UID/password pairs allow users to access the DACS IV-2000 to perform administrative, operational, provisioning, and maintenance functions.

Valid UIDs consist of one to ten characters in length. Allowable characters are letters (A-Z, a-z), decimal digits (0-9), and *special legal characters* (- . # % +). Valid passwords consist of six to eight characters in length. At least two of the characters must be nonalphabetic characters with at least one character being a *special legal character*. Password characters are letters (A-Z, a-z), decimal digits (0-9), and *special legal characters* (# % +). The first character of the password must be a letter.

The DACS IV-2000 (256) permits the use of the current set of UIDs and their associated passwords even if they do not adhere to the above rules. However, when creating new passwords, they must follow the above rules.

Refer to the chapter on **Frame Administration** in the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) for procedures on creating logins.

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## User Categorization

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Restricting access to information stored in a DACS IV-2000 database to those who need access is an effective security strategy to preserve the integrity of the DACS IV-2000 database. This strategy grants you the smallest set of privileges that is necessary to perform your tasks.

To assist in this restrictive access, UIDs are assigned User Privilege Codes. User Privilege Codes are made up of User Community Functional Categories (UCFC) and User Community Authorization Levels (UCAL) pairs. These components of security management are described in the **User Privilege Codes** appendix.

## User/Superuser Privileges

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### User Priority

The five levels of user login input commands priority (UCPL) are defined as: 5(highest), 4, 3, 2, and 1(lowest). There are no restrictions for assignment of priority levels to user logins; however, it is suggested the operation system support user logins that are provisioned for the highest priority level.

Only a superuser (UCFC/UCAL = S5) can change all parameters for all users. A user with a UCFC/UCAL of S1 can change the following parameters only: their own password, message screening, dialogue mode, and user type. For a superuser, the OLD PSWD field is checked against the current password only if it is given. If the superuser specifies the old password at the `ED-SECU-PID` prompt, that password must be validated. The last superuser cannot reduce the UCFC/UCAL below S5.

A superuser (UCFC/UCAL = S5):

- Is the only user that can edit a user's UCFC/UCAL pair.
- Must enter their password when changing their login; however, this is not necessary when changing the logins of other users.
- Has permission to create and delete a user login.
- Can log out other users from a working session.
- Is able to retrieve parameters associated with all user logins.

Passwords can be changed more than once in a login session. All changes to PSWD take effect immediately. To change passwords you must use the password that you changed to, not the password that you logged in with. When you alter your own login parameters, the old password must be supplied. If the old password is used, even when optional, it is checked.

Normal users are able to retrieve privilege parameters associated with their own login only.

## Dialog Procedure for Entering Input Commands

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The following section presents the dialog procedure for entering input commands.

### Modes of Operation

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There are two basic modes of operation to input commands:

- **Command-Line Mode** — This mode is for experienced users or machine-machine operation. A command must be selected and parameters entered within a single line (a backslash (\) followed by a carriage-return (<cr>) is considered a single line on input).

The input format as shown in the input command entries (Chapter 2) is the form of the command-line mode.

- **Menu/prompt Mode** — This mode is entered by typing a question mark (?) at the command prompt (<). The menu/prompt mode (or human-machine operation) provides three primary tiers of menu structure (called Activity Menus) that allow you to select an activity from the first (and possibly second) level and a command (verb-modifier) from the second (or possibly third) level. Figure 1-1 shows the basic menu/prompt mode structure.

Details of the human-machine interactions and Activity Menus are given in the **Activity Menus** appendix.

```
LOGIN
|
command prompt '<'
|
type a '?'
|
ACTIVITY MENU
|
ACTIVITY = select activity
|
ACTION MENU
|
ACTION = select action
|
Prompts for command parameters
|
Summary display
|
acknowledgment of output
|
return to command prompt
```

Figure 1-1. Menu/prompt Mode Structure

## Message Set 1 Command Mappings

For Release 4.0, Message Set 1 is not supported. Therefore, Table 1-4 can be used to map Message Set 1 commands into their associated Release 4.0 commands.

Table 1-4. Message Set 1 to Release 4.0 Command Mappings

Message Set 1 Commands	Release 4.0 Commands	Message Set 1 Commands	Release 4.0 Commands
ABT-CMD	ABT-CMD	ED-SECU-LINK	ED-SECU-LINK
ACT-ECHO-LINK	ACT-ECHO-LINK	ED-STATE-EQPT	ED-STATE-EQPT
ACT-USER	ACT-USER	ENT-AUTOCMPN-T1	ENT-AUTOCMPN-T1
ALW-LPBK-T1	ALW-LPBK-T1	ENT-EQPT	ENT-EQPT
ALW-LPBK-T3	ALW-LPBK-T3	ENT-TSTPT-T1	ENT-TSTPT-T1
ALW-PMREPT-T1	ALW-PMREPT-T1	EX-EQPT	EX-EQPT
ALW-PMREPT-T3	ALW-PMREPT-T3	INH-LPBK-T1	INH-LPBK-T1
ALW-SW-EQPT	ALW-SW-EQPT	INH-LPBK-T3	INH-LPBK-T3
CANC-ECHO-LINK	CANC-ECHO-LINK	INH-PMREPT-T1	INH-PMREPT-T1
CHG-ACCMD-T1	CHG-ACCMD-T1	INH-PMREPT-T3	INH-PMREPT-T3
CHG-LGN	ED-SECU-USER	INH-SW-EQPT	INH-SW-EQPT
CHG-TACC-T1	CHG-TACC-T1	INIT-REG-T1	INIT-REG-T1
CONN-BDCST-T1	ENT-CONF-T1	INIT-REG-T3	INIT-REG-T3
CONN-CRS-T1	ENT-CRS-T1	INIT-SYS	INIT-SYS
CONN-CRS1-T1	ENT-CRS-T1	LGN-USER	ACT-USER
CONN-PM-T1	CONN-PM-T1	LGT-USER	CANC-USER
CONN-ROLL-T1	ENT-ROLL-T1	OPR-ACO-ALL	OPR-ACO-ALL
CONN-TACC-T1	CONN-TACC-T1	OPR-LPBK-T1	OPR-LPBK-T1
CPY-MEM	CPY-MEM	OPR-LPBK-T3	OPR-LPBK-T3
CPY-TH-T1	CPY-TH-T1	RLS-LPBK-T1	RLS-LPBK-T1
CRTE-EQPT	ENT-EQPT	RLS-LPBK-T3	RLS-LPBK-T3
CRTE-LGN	ENT-SECU-USER	RLS-TSTPT-T1	RLS-TSTPT-T1
DGN-DET-EQPT	DGN-DET-EQPT	RMV-EQPT	RMV-EQPT
DISC-CRS-T1	DLT-CRS-T1	RMV-LINK	RMV-LINK
DISC-CRS1-T1	DLT-CRS-T1	RST-EQPT	RST-EQPT
DISC-EQPT	DLT-EQPT	RST-LINK	RST-LINK
DISC-PM-T1	DISC-PM-T1	RTRV-ALM-ALL	RTRV-ALM-ALL
DISC-TACC	DISC-TACC	RTRV-ALM-EQPT	RTRV-ALM-EQPT
DLT-EQPT	DLT-EQPT	RTRV-ALM-LINK	RTRV-ALM-LINK
DLT-LGN	DLT-SECU-USER	RTRV-ALM-NE	RTRV-ALM-COM
DLT-SECU-AUD	DLT-SECU-AUD	RTRV-ALM-T1	RTRV-ALM-T1
ED-ATTR-EQPT	SET-ATTR-EQPT	RTRV-ALM-T2	RTRV-ALM-T2
ED-ATTR-T1	SET-ATTR-T1	RTRV-ALM-T3	RTRV-ALM-T3
ED-ATTR-T2	SET-ATTR-T2	RTRV-ATTR-EQPT	RTRV-ATTR-EQPT
ED-ATTR-T3	SET-ATTR-T3	RTRV-ATTR-T1	RTRV-ATTR-T1
ED-DATE	ED-DATE	RTRV-ATTR-T2	RTRV-ATTR-T2
ED-PRMTR-EQPT	ED-EQPT	RTRV-ATTR-T3	RTRV-ATTR-T3
ED-PRMTR-LINK	ED-PRMTR-LINK	RTRV-CMD-STAT	RTRV-CMD-STAT
ED-PRMTR-NE	ED-NE	RTRV-COND-EQPT	RTRV-COND-EQPT
ED-PRMTR-T1	ED-T1	RTRV-COND-LINK	RTRV-COND-LINK
ED-PRMTR-T3	ED-T3	RTRV-COND-T1	RTRV-COND-T1

Table continued on next page.

Table 1-4. Message Set 1 to Release 4.0 Command Mappings (Continued)

Message Set 1 Commands	Release 4.0 Commands	Message Set 1 Commands	Release 4.0 Commands
RTRV-COND-T2	RTRV-COND-T2	SET-TH-T3	SET-TH-T3
RTRV-COND-T3	RTRV-COND-T3	STA-SCANPM-T1	STA-SCANPM-T1
RTRV-CRS	RTRV-CRS	STP-SCANPM-T1	STP-SCANPM-T1
RTRV-CRS-T1	RTRV-CRS-T1	SW-DX-EQPT	SW-DX-EQPT
RTRV-DROPCRS-T1	RTRV-DROPCRS-T1	SW-TOPROTN-EQPT	SW-TOPROTN-EQPT
RTRV-ECHO-LINK	RTRV-ECHO-LINK	SW-TOWKG-EQPT	SW-TOWKG-EQPT
RTRV-HDR	RTRV-HDR	TEST-CABLE	TEST-CABLE
RTRV-LPBK-T1	RTRV-LPBK-T1	TEST-TRMSN-T1	TEST-SW-CONTROL
RTRV-LPBK-T3	RTRV-LPBK-T3	TEST-SW-CONTROL	TEST-TRMSN-T1
RTRV-PATH-T1	RTRV-PATH-T1	TEST-UNIT-CABLE	TEST-UNIT-CABLE
RTRV-PM-T1	RTRV-PM-T1	REPT ALM EQPT	REPT ALM EQPT
RTRV-PM-T3	RTRV-PM-T3	REPT ALM LINK	REPT ALM LINK
RTRV-PMCNFGRN-T1	RTRV-PMCNFGRN-T1	REPT ALM NE	REPT ALM COM
RTRV-PMSCHED-T1	RTRV-PMSCHED-T1	REPT ALM T1	REPT ALM T1
RTRV-PMSCHED-T3	RTRV-PMSCHED-T3	REPT ALM T2	REPT ALM T2
RTRV-PRMTR-EQPT	RTRV-EQPT	REPT ALM T3	REPT ALM T3
RTRV-PRMTR-LINK	RTRV-PRMTR-LINK	REPT BKUP	REPT BKUP
RTRV-PRMTR-NE	RTRV-NE	REPT CMPR MEM	REPT CMPR MEM
RTRV-PRMTR-SFTWR	RTRV-PRMTR-SFTWR	REPT DBCHG	REPT DBCHG
RTRV-PRMTR-T1	RTRV-T1	REPT DGNDDET EQPT	REPT DGNDDET EQPT
RTRV-PRMTR-T3	RTRV-T3	REPT DISC TACC	REPT DISC TACC
RTRV-PRVG-USER	RTRV-SECU-USER	REPT DLTCRS T1	REPT DLTCRS T1
RTRV-SCANTH-NE	RTRV-SCANTH-NE	REPT DROPCRS T1	REPT DROPCRS T1
RTRV-SECU-AUD	RTRV-SECU-AUD	REPT EVT T1	REPT EVT T1
RTRV-SECU-LINK	RTRV-SECU-LINK	REPT EVT T3	REPT EVT T3
RTRV-STATE-EQPT	RTRV-STATE-EQPT	REPT EXCPTN SYS	REPT EXCPTN SYS
RTRV-STATE-T1	RTRV-STATE-T1	REPT LOCL IN	REPT LOCL IN
RTRV-SYSID	RTRV-SYSID	REPT PM T1	REPT PM T1
RTRV-TACC-T1	RTRV-TACC-T1	REPT PM T3	REPT PM T3
RTRV-TH-T1	RTRV-TH-T1	REPT RMV EQPT	REPT RMV EQPT
RTRV-TH-T3	RTRV-TH-T3	REPT RMV LINK	REPT RMV LINK
SCHED-PMREPT-T1	SCHED-PMREPT-T1	REPT RST EQPT	REPT RST EQPT
SCHED-PMREPT-T3	SCHED-PMREPT-T3	REPT RST LINK	REPT RST LINK
SET-SCANTH-NE	SET-SCANTH-NE	REPT RSTCRS T1	REPT RSTCRS T1
SET-SID	SET-SID	REPT SW EQPT	REPT SW
SET-TH-T1	SET-TH-T1	REPT TRMSN T1	REPT TRMSN T1

---

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■ ABT-CMD	2-3
■ ACT-ECHO-LINK	2-6
■ ACT-USER	2-9
■ ALW-LPBK-EC1	2-12
■ ALW-LPBK-T1	2-12
■ ALW-LPBK-T3	2-12
■ ALW-LPBK-VT1	2-12
■ ALW-MSG-EC1	2-16
■ ALW-MSG-VT1	2-16
■ ALW-PMREPT-EC1	2-19
■ ALW-PMREPT-T1	2-19
■ ALW-PMREPT-T3	2-19
■ ALW-PMREPT-VT1	2-19
■ ALW-SW-EQPT	2-21
■ CANC-ECHO-LINK	2-24
■ CANC-USER	2-26
■ CHG-ACCMD-EC1	2-29
■ CHG-ACCMD-T1	2-29
■ CHG-ACCMD-VT1	2-29
■ CHG-TACC-EC1	2-37
■ CHG-TACC-T1	2-37
■ CHG-TACC-VT1	2-37
■ CONN-PM-T1	2-45
■ CONN-TACC-EC1	2-49

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■ CONN-TACC-T1	2-49
■ CONN-TACC-VT1	2-49
■ CPY-MEM	2-59
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■ DGN-DET-EQPT	2-68
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■ DLT-EQPT	2-90
■ DLT-SECU-AUD	2-94
■ DLT-SECU-USER	2-97
■ ED-DATE	2-113
■ ED-EC1	2-99
■ ED-EQPT	2-116
■ ED-NE	2-123
■ ED-PORT	2-132
■ ED-PRMTR-LINK	2-138
■ ED-SECU-LINK	2-148
■ ED-SECU-PID	2-151
■ ED-SECU-USER	2-154
■ ED-STATE-EQPT	2-159
■ ED-T1	2-99
■ ED-T3	2-99
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■ ENT-CONF-T1	2-165
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■ ENT-EQPT	2-176
■ ENT-FAN-FILTER	2-183
■ ENT-ROLL-STS1	2-185
■ ENT-ROLL-T1	2-185
■ ENT-ROLL-VT1	2-185
■ ENT-SECU-USER	2-191
■ ENT-TSTPT-EC1	2-196
■ ENT-TSTPT-T1	2-196
■ ENT-TSTPT-VT1	2-196
■ EX-EQPT	2-198
■ INH-LPBK-EC1	2-201
■ INH-LPBK-T1	2-201
■ INH-LPBK-T3	2-201
■ INH-LPBK-VT1	2-201
■ INH-MSG-EC1	2-205
■ INH-MSG-VT1	2-205
■ INH-PMREPT-EC1	2-208
■ INH-PMREPT-T1	2-208
■ INH-PMREPT-T3	2-208
■ INH-PMREPT-VT1	2-208
■ INH-SW-EQPT	2-211
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■ INIT-REG-T1	2-214
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■ LGT-USER	2-225
■ OPR-ACO-ALL	2-228
■ OPR-LPBK-EC1	2-230
■ OPR-LPBK-T1	2-230
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■ RLS-LPBK-T3	2-238
■ RLS-LPBK-VT1	2-238
■ RLS-TSTPT-EC1	2-241
■ RLS-TSTPT-T1	2-241
■ RLS-TSTPT-VT1	2-241
■ RMV-EQPT	2-243
■ RMV-LINK	2-246
■ RST-EQPT	2-248
■ RST-LINK	2-252
■ RTRV-ALM-ALL	2-274
■ RTRV-ALM-COM	2-282
■ RTRV-ALM-EC1	2-267
■ RTRV-ALM-EQPT	2-285
■ RTRV-ALM-LINK	2-292
■ RTRV-ALM-T1	2-267
■ RTRV-ALM-T2	2-267
■ RTRV-ALM-T3	2-267
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■ RTRV-ATTR-T1	2-296
■ RTRV-ATTR-T2	2-296
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■ RTRV-ATTR-VT1	2-296
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■ RTRV-COND-EQPT	2-321
■ RTRV-COND-LINK	2-328
■ RTRV-COND-T1	2-314
■ RTRV-COND-T2	2-314
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■ RTRV-CONF-T1	2-332
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■ RTRV-CRS-T1	2-336
■ RTRV-CRS-VT1	2-336
■ RTRV-DROPCRS-STS1	2-346
■ RTRV-DROPCRS-T1	2-346
■ RTRV-DROPCRS-VT1	2-346
■ RTRV-EC1	2-254
■ RTRV-ECHO-LINK	2-349
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■ RTRV-LPBK-EC1	2-361
■ RTRV-LPBK-T1	2-361
■ RTRV-LPBK-T3	2-361
■ RTRV-LPBK-VT1	2-361
■ RTRV-MSG-EC1	2-366
■ RTRV-MSG-VT1	2-366
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■ RTRV-PATH-STS1	2-377
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## Command Listing

---

## Commands and Messages

# 2

---

This chapter contains the commands and their associated messages. The commands are presented in alphabetical order.

For general information and entry formats, refer to Chapter 1. For information on autonomous messages refer to Chapter 3. For reference information (for example, condition types, state names, etc.) refer to the appendices.



## ABT-CMD

### INPUT FORMAT

---

ABT-CMD: [a] :: [b];

**Command Name:** Abort Command  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command terminates execution of a user-specified abortable command. The command that is aborted returns an error response indicating (through the error code) that execution was aborted.

**Notes:** The following is a list of abortable commands for Release 4.0:

DGN-DET-EQPT	RTRV- {EC1   T1   T3   VT1 }
RTRV-ALM- {EC1   T1   T3   VT1 }	RTRV-ALM-ALL
RTRV-ALM-COM	RTRV-ALM-EQPT
RTRV-ALM-LINK	RTRV-ATTR- {EC1   T1   T2   T3   VT1 }
RTRV-ATTR-EQPT	RTRV-COND- {EC1   T1   T2   T3   VT1 }
RTRV-COND-EQPT	RTRV-COND-LINK
RTRV-CONF- {STS1   T1   VT1 }	RTRV-CRS
RTRV-CRS- {STS1   T1   VT1 }	RTRV-DROPCRS- {STS1   T1   VT1 }
RTRV-ECHO-LINK	RTRV-EQPT
RTRV-HDR	RTRV-LPBK- {EC1   T1   T3   VT1 }
RTRV-MSG- {EC1   VT1 }	RTRV-NE
RTRV-PATH- {STS1   T1   VT1 }	RTRV-PM- {EC1   T1   T3   VT1 }
RTRV-PMCNGRN-T1	RTRV-PMODE- {EC1   VT1 }
RTRV-PMSCHED- {EC1   T1   T3   VT1 }	RTRV-PORT
RTRV-PRMTR-LINK	RTRV-SCANTH-NE
RTRV-SECU-AUD	RTRV-SECU-USER
RTRV-STATE- {EC1   T1   VT1 }	RTRV-STATE-EQPT
RTRV-SYNCN	RTRV-TACC- {EC1   T1   VT1 }
RTRV-TH- {EC1   T1   T3   VT1 }	RTRV-TH-NE
TEST-CABLE	TEST-SW-CONTROL
TEST-TRMSN-T1	TEST-UNIT-CABLE

A command's Output Message Response (that is, the number of lines output) and the time at which the **ABT-CMD** is entered determine whether the command aborts successfully.

This command does not follow the normal system rules for single threading. **ABT-CMD** is executed as soon as it is received (that is, ahead of any commands that were entered before it).

This command terminates abortable commands that are running and issues a completion response. If the command that is running is not abortable, this command issues a completion message without having aborted the command.

## ABT-CMD

In order to enter the **ABT-CMD** command during a large output message response, the cancel key (described in the **Activity Menu** appendix) is used to interrupt the current output message flow.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M b COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M b DENY  
c  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

**b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**c Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

# ACT-ECHO-LINK

## INPUT FORMAT

---

ACT-ECHO-LINK: [a] :b, c: [d] ;

**Command Name:** Activate Echo Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command activates echoing of input commands from the specified link (REPT LOCL IN messages) to another link. Initially, the echo is inactive for all links.

**Notes:** Activating the echo of input commands for CILINKs 1-4 and 2-4 when they are provisioned for TABS or TBOS have no effect. No REPT LOCL IN messages are generated for a TABS or TBOS link.

When the message echo feature is activated for a link or virtual circuit, password parameters that are entered via ACT-USER, ED-SECU-PID, and ENT-SECU-PID on that link or virtual circuit are not suppressed.

This command is executed whether or not a user is logged onto the link that is specified.

Only one link or virtual circuit can have its input commands echoed at one time.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple addressing is not allowed.

Specifies the CILINK for which input commands are echoed. For CILINK-{1,2}-{5,6}, the virtual circuit must also be specified.

## Input Format

ACT-ECHO-LINK: [a]:b,c:[d];

## Input Parameters (Continued)

c       **Virtual Circuit (VIRT\_CIR):**  
          { {1-4}, NOVAL }

**Default:** None for CILINK-{1,2}-{5,6}; NOVAL for CILINK-{1,2}-{1-4}

**Initial System Value:** None

**Addressing Rules:** Multiple addressing is not allowed.

Specifies the virtual circuit on the X.25 link from which input commands are echoed.

d       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

# ACT-ECHO-LINK

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
e
[ "<parsable text string>" ]
;
```

### Output Parameters

---

d        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
SARB	Echo is already activated for the specified link or virtual circuit
SARB	Echo is already activated for another link or virtual circuit

## ACT-USER

### INPUT FORMAT

---

ACT-USER: [a] : b : [c] : : d ;

**Command Name:** Activate User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** M1,P1,PM1,S1,T1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command logs a user into the system through an X.25 link (CILINK 1-5, 1-6, 2-5, or 2-6).

**Notes:** The same user can be logged into more than one link and/or more than one virtual circuit at the same time.

For Snider links, the user can log in only via the `login:` prompt as described in the section titled **Logging In** of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

This command does not follow the normal system rules for single threading. **ACT-USER** is executed as soon as it is received (that is, ahead of any commands that were entered before it).

Valid passwords consist of at least two nonalphanumeric characters with at least one character being a special legal character (# % +). The first character of a password must be a letter.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS> }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the user identification (UID).

# ACT-USER

## Input Format

---

ACT-USER: [a] :b: [c] ::d;

## Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Password (PSWD):**  
         { <6-8 PSWD LEGAL CHARACTERS> }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the password.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* Unauthorized access, use, or modification */
   /* of the DACS IV-2000 system is a criminal */
   /* violation of Federal and State laws */
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
[   "<parsable text string>"]
;
```

### Output Parameters

---

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

# ALW-LPBK-**{EC1|T1|T3|VT1}**

## INPUT FORMAT

---

ALW-LPBK-**{EC1|VT1}** : [a] : b : [c] ;  
ALW-LPBK-**{T1|T3}** : [a] : b : [c] : : [d] ;

**Command Name:** Allow Loopback {EC1|T1|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** No

## Purpose

---

**(EC1|VT1):** This command allows manual (EC1|VT1) near-end loopback operations on SMUX circuit packs (clears the INHEC1LPBK|INHVT1LPBK condition).

**(T1):** This command allows manual DS1 near-end loopback operations on DS1 interface, MUX, or SMUX circuit packs (clears the INHDS1LPBK condition). Also, a MUX circuit pack provisioned to support remote DS1 loopback operations allows requests for far-end DS1 loopback operations (clears the INHDS1FLPBK condition).

**(T3):** This command allows manual DS3 near-end loopback operations on a MUX circuit pack (clears the INHDS3LPBK condition). Also, a MUX circuit pack provisioned to support remote DS3 loopback operations allows requests for far-end DS3 loopback operations (clears the INHDS3FLPBK condition).

## Notes: T1 and T3

When using this command to perform far-end loopback operations, a response of **COMPLD** signifies that the request itself (not the action requested at the far-end) has completed. Under TR-TSY-000009 protocol, confirmation of the loopback operation requested is not sent back to the near-end; verification is done through test equipment.

## Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

ALW-LPBK-**{EC1|VT1}**: [a]:b:[c];  
ALW-LPBK-**{T1|T3}**: [a]:b:[c]::[d];

## Input Parameters (Continued)

---

**b Port (PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }

**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** For a range of interface modules, this command is denied unless all interface modules are compatible with the port type.

**(EC1):** Multiple EC-1 Ports within the same STS1 Interface Module can be specified using restrictive multiple addressing.

**(T1|T3|VT1):** Multiple (DS1|DS3|VT1.5) Ports can be specified using restrictive multiple addressing.

**(EC1):** Specifies the EC-1 Port of an SMUX circuit pack, or all of the EC-1 Ports associated with the specified interface module or range of interface modules.

**(T1):** Specifies the DS1 Port of a DS1 interface, MUX, or SMUX circuit pack or all of the DS1 Ports associated with the specified DS1 interface group or interface module(s).

**(T3):** Specifies the DS3 Port, or all of the DS3 Ports associated with the MUX circuit pack within the specified interface module(s).

**(VT1):** Specifies the VT1.5 Port of an SMUX circuit pack, or all of the VT1.5 Ports associated with the given VT1.5 interface group or interface module(s).

**c Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## ALW-LPBK-{EC1|T1|T3|VT1}

### Input Format

---

ALW-LPBK-{EC1|VT1}: [a] :b: [c] ;  
ALW-LPBK-{T1|T3}: [a] :b: [c] :: [d] ;

### Input Parameters (Continued)

---

d        **Loopback Control (LPBKCON):**  
          **(EC1|VT1):** { <not used> }  
          **(T1|T3):** { NEND, FEND, BOTH }

**Default:** NEND  
          **Initial System Value:** None  
          **Addressing Rules:** None

**(T1):** DS1 loopback control on the specified DS1 interface, MUX, or SMUX circuit pack is allowed.

**(T3):** DS3 loopback control on the specified MUX circuit pack is allowed.

This command is denied when this parameter is **FEND** or **BOTH** and the **PORT** parameter (b) is not associated with a MUX2 circuit pack provisioned for far-end DS1/DS3 loopback operations.

- **NEND** - indicates the DS1 interface or MUX circuit pack is allowed to process manual DS1/DS3 loopback operations. If the MUX circuit pack is provisioned for remote DS1/DS3 loopback operations, this includes requests for DS1/DS3 loopback operations to the far-end.
- **FEND** - indicates the MUX circuit pack provisioned for remote DS1/DS3 loopback is allowed to respond to DS1/DS3 loopback operations from the far-end.
- **BOTH** - indicates both loopback controls are allowed.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Error Code (ERRCDE):**

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	Circuit pack out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAAL	Port already allowed
SABT	Execution aborted due to error in implementation
SNIS	MC is out of service
SNPV	Circuit pack is not provisioned
SNVS	Wrong remote multiplexer type or circuit pack
SNVS	Specified port is already looped back
SOSF	Circuit pack is bad
SROF	Error encountered in implementation (for example, database access error)

# ALW-MSG-{EC1|VT1}

## INPUT FORMAT

---

ALW-MSG-{EC1|VT1}:[a]:b:[c]::[d],[e],[f];

**Command Name:** Allow Message {EC1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command allows threshold crossing alert messages for port(s) specified in the **PORT** parameter (b). This command is used after the port has been inhibited by the **INH-MSG-{EC1|VT1}** command to turn off all threshold crossing alerts. Initially, for all ports and all time periods, threshold crossing alert messages are allowed.

**Notes:** The **ALW-MSG-EC1** command is allowed regardless of the Active Signal Type of the Port.

The **ALW-MSG-VT1** command is denied with the error code **IDNV** if the Active Signal Type of the Port is **EC1**.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Port (PORT):**  
**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified. All of the ports specified must be on provisioned circuit packs, otherwise the command is denied.

Specifies the port, or all of the ports associated with the specified interface modules.

## Input Format

---

ALW-MSG-{EC1|VT1}: [a]:b:[c]::[d], [e], [f];

## Input Parameters (Continued)

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- d**        **Notification Code (NTFCNCDE):**  
          { NA }
- Default:** NA  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies that all threshold crossing alert messages associated with the ports in the **PORT** parameter (b) are allowed.
- e**        **Condition Type (CTYPE):**  
          { ALL }
- Default:** ALL  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies that all threshold crossing alerts associated with the ports specified in the **PORT** parameter (b) are allowed.
- f**        **Time Period (TMPER):**  
          { 15-MIN, 1-DAY, ALL }
- Default:** ALL  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the accumulation Time Period for all monitored parameters for the ports specified in the **PORT** parameter (b).

# ALW-MSG-{EC1VT1}

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
g
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1–10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Active Signal Type of port is EC1 (for <b>ALW-MSG-VT1</b> command)
IDRG	The range of ports specified is not valid
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	The port or range of ports specified must have at least one provisioned port
SROF	UC cannot be accessed

## ALW-PMREPT-**{EC1|T1|T3|VT1}**

### INPUT FORMAT

---

ALW-PMREPT-**{EC1|T1|T3|VT1}** : [a] : b : [c] ;

**Command Name:** Allow Performance Monitoring Report **{EC1|T1|T3|VT1}**  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command resumes performance-monitoring reports that were inhibited by the **INH-PMREPT-**{EC1|T1|T3|VT1}**** command.

**Notes:** This command allows all reports for the ports specified in the **PORT** parameter (b).

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:**  
          **(EC1|VT1):** Multiple ports can be specified.  
          **(T1|T3):** Multiple ports can be specified using restrictive multiple addressing.
- Specifies the port, or all of the ports associated with the specified interface group or module.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	The range of ports specified is not valid
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error
SARB	Status, all resources are busy
SNPV	Interface module is not provisioned
SNPV	All circuit packs in address range are not provisioned
SNPV	Circuit pack is not a MUX1, MUX2, SWIF1, SWIF2, or SMUX

## ALW-SW-EQPT

### INPUT FORMAT

---

ALW-SW-EQPT: [a] :b: [c] :d, , , , , , ;

**Command Name:** Allow Switch Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command allows automatic protection/unprotection switching on a working circuit pack that had been inhibited.

**Notes:** If a circuit pack is protected by giving this command, the counters are increased for purposes of autolock (see the **ED-NE** command).

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Equipment Location (LOC):**  
          { SWCS-{1-31}, SWIO-{1-32}, MUX-{1-32}-{1-31}, SMUX-{1-32}-{1-15},  
          SWIF-{1-32}-{1-8} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs can be specified using restrictive multiple addressing.

Specifies the type and location of the working circuit pack. See the **INH-SW-EQPT** command for more information.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## ALW-SW-EQPT

### Input Format

---

ALW-SW-EQPT: [a]:b:[c]:d,,,,,,,,;

### Input Parameters (Continued)

---

d        **Switch Direction (SWDIR):**  
          { PROTN, WKG }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the direction in which automatic switching is being allowed. If **PROTN** is specified and the circuit pack is in the OOS-MTCE state (protected), or if **WKG** is specified and the circuit pack is in the ACT (not protected) state, this command is denied.

- **PROTN** - indicates switch to protection.
- **WKG** - indicates switch to working.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

When a command is entered via the General Telemetry Processor (GTP), the CTAG output parameter field (c) contains the string TABS and the SWDIR output parameter is set to ALL. For example:

```
ALW SW EQPT::MUX-10-1:TABS:ALL COMPLD
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

**c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Invalid circuit pack or allow switch direction is specified
IDRG	Invalid range specified in command
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAAL	Specified circuit pack is already allowed
SAPS	Specified circuit pack is already in protection state
SAWS	Specified circuit pack is already in working state
SNPV	Specified interface module or circuit pack is not provisioned

# CANC-ECHO-LINK

## INPUT FORMAT

---

CANC-ECHO-LINK: [a] :b, c : [d] ;

**Command Name:** Cancel Echo Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command cancels the echoing of input commands from the specified link (REPT LOCL IN messages) to another link. Initially, the echo is inactive for all links.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Link ID (LINKID):**  
          { CILINK-<sub>{1,2}</sub>-<sub>{1-6}</sub> }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple addressing is not allowed.
- Specifies the CILINK for which echoing of input commands is canceled.
- c       **Virtual Circuit (VIRT\_CIR):**  
          { <sub>{1-4}</sub>, NOVAL }
- Default:** None for CILINK-<sub>{1,2}</sub>-<sub>{5,6}</sub>; NOVAL for CILINK-<sub>{1,2}</sub>-<sub>{1-4}</sub>  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple addressing is not allowed.
- Specifies the virtual circuit on the X.25 link for which the echo of input commands is canceled.
- d       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M d COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M d DENY  
e  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

d        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
SNVS	Echo is already canceled for the specified link

# CANC-USER

## INPUT FORMAT

---

CANC-USER: [a] : [b] : [c] ;

**Command Name:** Cancel User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** M1,P1,PM1,S1,T1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command logs you out of the system. After this command has been executed no other input commands are accepted on a link (or virtual circuit for X.25 links) until another login has been completed.

**Notes:** If you are logged out through the **CANC-USER** command, any active test sessions associated with your UID and link are automatically released if the link association parameter has been set to **Y** (yes) in the **CONN-TACC- {EC1 | T1 | VT1}**, **CHG-TACC- {EC1 | T1 | VT1}**, or **OPR-LPBK- {EC1 | T1 | T3 | VT1}** command. A **REPT DBCHG** message is generated for each test session that is released in this manner.

For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.

This command does not follow the normal system rules for single threading. **CANC-USER** is executed as soon as it is received (that is, ahead of any commands that were entered before it).

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL (the UID logged onto the link from which this command is being input)  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the user identification (UID). Only a user with a UCFC/UCAL of S5 can specify a UID other than their own.

### **Input Format**

---

**CANC-USER:** [a] : [b] : [c] ;

### **Input Parameters (Continued)**

---

**c**            **Correlation Tag (CTAG):**  
              { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## CANC-USER

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   d
[  "<parsable text string>"
;
```

#### Output Parameters

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	User does not exist in the database
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User is not logged in
PIOC	User is not a superuser
PLNA	User is not logged in
SROF	Requested operation failed

## CHG-ACCMD-{EC1IT1IVT1}

### INPUT FORMAT

---

CHG-ACCMD- {EC1 | T1 | VT1} : [a] : b : [c] : [d] ;

**Command Name:** Change Access Mode {EC1IT1IVT1}  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T3  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command changes the test access mode (Test Mode) of a test session.

**Notes:** The following restrictions to Test Mode apply based on mapping:

- If both the input and output of the E-End are *mapped* to the same port (two-way connection without broadcast connections), all Test Modes are allowed.
- If the input of the E-End is IDLE, the only Test Modes allowed are MONE, SPLTE, and LOOPE.
- If the input of the E-End is *mapped* and the output of the E-End is IDLE (one-way connection), the only Test Modes allowed are MONE, SPLTA, SPLTE, and LOOPE.
- If both the input and output of the E-End are *mapped*, but to different ports (separate one-way connections), the only Test Modes allowed are MONE and SPLTA.

The following restriction applies to changing between Test Modes:

- Subject to other restrictions, the Test Mode can be changed between any of the one-way values (MONE, MONF, SPLTA, SPLTB, SPLTE, SPLTF, LOOPE, LOOPF) or between the two-way values (MONEF, SPLTEF), but **cannot** be changed between these two sets. To change between one-way test access to two-way test access, the test session must be released (DISC-TACC) and reestablished.

The Output Mode of ports under test is temporarily modified in the following manner:

- {EC1 | VT1} : For the values SPLTE and LOOPE, the Output Mode of the F-End Output Port, along with any other Output Ports the E-End is transmitting to, is automatically set to IDLE. For the value SPLTEF, the Output Mode of Output Ports the E-End is transmitting to (except the F-End Output Port), is automatically set to IDLE.
- {T1} : For the values SPLTE and LOOPE, the Output Mode of the F-End Output Port, along with any other Output Ports the E-End is transmitting to, is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE. For the value SPLTEF, the Output Mode of the Output Ports the E-End is transmitting to (except the

## CHG-ACCMD-{EC1|VT1}

F-End Output Port), is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE.

- **(EC1|VT1)**: For the values SPLTF and LOOPF, the Output Mode of the E-End Output Port, along with any other Output Ports the F-End is transmitting to, is automatically set to IDLE. For the value SPLTEF, the Output Mode of Output Ports the F-End is transmitting to (except the E-End Output Port), is automatically set to IDLE.
- **(T1)**: For the values SPLTF and LOOPF, the Output Mode of the E-End Output Port, along with any other Output Ports the F-End is transmitting to, is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE. For the value SPLTEF, the Output Mode of the Output Ports the F-End is transmitting to (except the E-End Output Port), is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE.

The Output Mode on all of these ports is restored to the previous value when the Test Mode is changed or when test access is released.

**(T1)**: The following restrictions to Test Mode apply based upon mapping:

- If the E-end DS1 port is in the IDLE state (both the input and output ports) a change of test modes between any of the following is allowed: MONE, SPLTE, LOOPE. But all other test modes are denied with the error code SNVS.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual (AT&T 365-340-700)* for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

a      **Target ID (TID):**  
         { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

CHG-ACCMD- {EC1|T1|VT1} : [a] : b : [c] : [d] ;

## Input Parameters (Continued)

---

**b Tap Port (TAP):**

**(EC1):** EC-1 Port: {1-32}-{1-15}

**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}

**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple addressing is not allowed.

Specifies the Test Access Point, which is represented by the port that is being used as the test port for this test session. The Tap (T1) Port can be a DS1, VT1.5, or EC-1 Port. The Tap (EC-1|VT1.5) Port can be on a EC-1 Port.

**c Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

**d Test Mode (TSTMDE):**

{ MONE, MONF, SPLTA, SPLTB, SPLTE, SPLTF, LOOPE, LOOPF, MONEF, SPLTEF }

**Default:** MONE

**Initial System Value:** None

**Addressing Rules:** None

Specifies the test mode to be used. See the **Notes** section at the beginning of this command for restrictions and for special handling of the Output Mode associated with different Test Modes.

## RESPONSES

---

### Normal Response

---

#### (EC1IVT1):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* TAP:E-PORT,F-PORT,E-SIG,F-SIG,E-OMODE,F-OMODE,EF-STAT,FE-STAT */
"e:f,g,h,i,j,k,l,m"
[ /* WARNING: SIGNAL LABEL MISMATCH */ ]
;
```

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* TAP:E-PORT,F-PORT,E-SIG,F-SIG,E-OMODE,F-OMODE,EF-STAT,FE-STAT */
"e:f,g,h,i,j,k,l,m"
[ /* WARNING:AMI/B8ZS MISMATCH */ ]
;
```

**(T1):** For the MONE, SPLTA, SPLTB, SPLTE, LOOPE, MONEF, and SPLTEF test modes, if the E-End and Tap ports are on asynchronous interfaces and have different line code settings (that is, AMI and B8ZS), a warning notice is sent. For the MONF, SPLTA, SPLTB, SPLTF, LOOPF, MONEF, and SPLTEF test modes, if the Current F-End and Tap ports are on asynchronous interfaces and have different line code settings, a warning notice is sent. If more than one of these conditions exist, only one warning notice is sent. These warning notices appear before the terminating semi-colon.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
n
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
Specifies the Correlation Tag used to associate an input command with its output response.
- e Tap Port (TAP):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}  
Specifies the Test Access Point, which is represented by the Port that is being used as the test port for this test session.
- f E-End Port (E-PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}  
Specifies the E-End Port for the test session.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"e: f, g, h, i, j, k, l, m" (Normal Response)  
n (Error Response)

## Output Parameters (Continued)

---

- g F-End Port (F-PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the F-End Port for the test session. If the E-End Input Port is in the IDLE state, this parameter is omitted.
- h E-End Input Health (E-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the E-End.
- (EC1IVT1): Specifies the input signal health of the EC-1 Port that supports the E-End (EC-1IVT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the E-End (T1) Input Port.
- **DRVN** (driven) - indicates that a valid signal is expected at the Port, the Port is being monitored for incoming failures, and no incoming failures are currently detected.
  - **INC** - is the same as DRVN when there are incoming failures detected.
  - **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
  - **INIT** - is used for an initialized (unset) value. In this case, the Port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN.
- i F-End Input Health (F-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the F-End. If the F-End (EC-1IT1IVT1.5) Port is omitted, this parameter is omitted.
- (EC1IVT1): Specifies the input signal health of the EC-1 Port that supports the F-End (EC-1IVT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the F-End (T1) Input Port.
- The parameter values have the same meaning as those given for the E-SIG parameter (h).

## CHG-ACCMD-{EC1IT1IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "e:f,g,h,i,j,k,l,m" (Normal Response)  
n (Error Response)

### Output Parameters (Continued)

---

j **E-End Output Mode (E-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the E-End.

(T1): The value QRSS is not applicable to the DS1 Ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

k **F-End Output Mode (F-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the F-End. If the F-End (EC-1IT1IVT1.5) Port is omitted, this parameter is omitted.

(T1): The value QRSS is not applicable to the DS1 Ports on the SONET interfaces.

The parameter values have the same meaning as those given for the E-OMODE parameter (j).

l **E to F Special Connection Status (EF-STAT):**  
{ RDLD }

Specifies any special status associated with the E-to-F connection that impacts test access. This parameter is omitted if no special status is associated with the E-to-F connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.

m **F to E Special Connection Status (FE-STAT):**  
{ RDLD, EFONLY }

Specifies any special status associated with the F-to-E connection that impacts test access. This parameter is omitted if no special status is associated with the F-to-E connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.
- **EFONLY** - indicates that there is no F-to-E connection, only an E-to-F connection.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"e:f,g,h,i,j,k,l,m" (Normal Response)  
n (Error Response)

## Output Parameters (Continued)

---

n **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack not equipped
ENRE	Circuit pack not recognized
ERLC	Red-lined circuit
IDMS	Input data missing
IDRG	Input data out of range
IDNV	Input data not valid
IDNV	Even numbered Port specified for MONEF or SPLTEF
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped abruptly before completion
SACC	Ports already cross-connected
SARB	Specified path not available in the switch
SCAT	E-End or F-End port is already under test
SNCC	E-End and F-End not cross-connected
SNIS	UC not in service
SNML	No test access set up in input test port
SNPV	Circuit pack not provisioned
SNPV	PM function is active on PMGR
SNVS	Invalid test mode change
SNVS	Port(s) under test or is a testport or not in valid state
SNVS	Invalid test mode change; with E-End idle, F-End already under test, for two-way test access, or with E-End and F-End both mapped but not to each other

## CHG-ACCMD-{EC1IT1IVT1}

### Error Code Listing (Continued)

---

<b>ERRCDE</b>	<b>Condition</b>
SOSF	UC out of service or failed
SOSF	Circuit pack bad or failed
SROF	Input command failed
SROF	Database access failure in general
SSTP	Execution stopped gracefully before completion

## CHG-TACC-{EC1|T1|VT1}

### INPUT FORMAT

---

CHG-TACC-{EC1|T1|VT1}:[a]:b,[c],[d]:[e]:[f]:[g]:[h];

**Command Name:** Change Test Access {EC1|T1|VT1}  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command changes parameters other than Test Mode associated with a test session.

**Notes:** Test access connections with link association (see the **LASSO** parameter [h]) are released on manual or autonomous log out.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

If test access is active on a port, any subsequent loopback command on that port is denied with the error code **SNVS** until the test access is taken down. However, if the port is only a testport without any active test access on it, loopback is allowed.

If a loopback is active on a port, then any subsequent test access command on that port is denied (**SNVS**) unless the loopback is a far-end LPBKM.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Tap Port (TAP):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple addressing is not allowed.

Specifies the Test Access Point, which is represented by the port that is being used as the test port for this test session. The Tap (T1) Port can be on a DS1 interface, MUX, or SMUX circuit pack. The Tap (EC-1|VT1.5) Port can be on an SMUX circuit pack.

## CHG-TACC-{EC1|T1|VT1}

### Input Format

---

CHG-TACC-{EC1|T1|VT1}: [a]:b, [c], [d]: [e]: [f]: [g]: [h];

### Input Parameters (Continued)

---

c **E-End Port (E-PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15}, NOVAL }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, NOVAL }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** Multiple addressing is not allowed.

Specifies the E-End Input Port that is under test access. This parameter is optional, and if specified, must be the E-End Port that is being tested by the port specified in the **TAP** parameter (b), or the command is denied. The E-End (T1) Port can be on a DS1 interface, MUX, or SMUX circuit pack. The E-End (EC-1|VT1.5) Port can be on an SMUX circuit pack.

d **(Current F-End) Port (CURR-F-PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15}, NOVAL }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, NOVAL }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** Multiple addressing is not allowed.

Specifies the current F-End Port for the test session. The F-End (T1) Port can be on a DS1 interface, MUX, or SMUX circuit pack. The F-End (EC-1|VT1.5) Port can be on an SMUX circuit pack. This parameter is useful if the E-End Input Port is broadcasting to several output ports, to allow switching split accesses between them. If this parameter is given, it must be mapped to the E-End Input Port or the command is denied. If the current Test Mode is MONF, SPLTB, SPLTF, LOOPF, MONEF, or SPLTEF, the current F-End Port cannot be changed.

e **Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

CHG-TACC-{EC1|T1|VT1}: [a]:b, [c], [d]:[e]:[f]:[g]:[h];

## Input Parameters (Continued)

---

- f        **E-End Output Mode (E-OMODE):**  
          **(EC1|VT1):** { NORM, TERM, AIS, CURVAL }  
          **(T1):** { NORM, TERM, AIS, QRSS, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the new Output Mode of the E-End. If the E-End Output Port is IDLE, the value **TERM** cannot be given. If the Test Mode is SPLTF, SPLTEF, or LOOPF, the Output Mode cannot be changed.

**(T1):** If no QRSS source is provisioned or the E-End port is on a SONET interface, **QRSS** cannot be specified.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

- g        **F-End Output Mode (F-OMODE):**  
          **(EC1|VT1):** { NORM, TERM, AIS, CURVAL }  
          **(T1):** { NORM, TERM, AIS, QRSS, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the new Output Mode of the F-End (if any). If the E-End Output Port is IDLE, this parameter cannot be given. If the Test Mode is SPLTE, SPLTEF, or LOOPE, the Output Mode cannot be changed.

**(T1):** If no QRSS source is provisioned or the E-End port is on a SONET interface, **QRSS** cannot be specified.

The parameter values have the same meaning as those given for the **E-OMODE** parameter (f).

- h        **Link Association (LASSO):**  
          { Y, N, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether (**Y** or yes) or not (**N** or no) the test session is to be associated with the link on which this command is given. When a test session is associated with a link, the test session is automatically released (if permitted by the current system state) if the user is logged out on that link, or if the Main Controller (MC) is restored to service. Only the user that initially set up this test session can specify a value for this parameter.

## RESPONSES

---

### Normal Response

---

#### (EC1IVT1):

```
TID YY-MM-DD HH:MM:SS
M e COMPLD
/* TAP:E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"i:j,k,l,m,n,o,p,q"
[ /* WARNING: SIGNAL LABEL MISMATCH */ ]
;
```

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M e COMPLD
/* TAP:E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"i:j,k,l,m,n,o,p,q"
[ /* WARNING: B8ZS/AMI MISMATCH */ ]
;
```

**(T1):** For the MONE, SPLTA, SPLTB, SPLTE, LOOPE, MONEF and SPLTEF test modes, if E-End and Tap Ports are on asynchronous interface and have different line code settings (that is, AMI and B8ZS), a warning notice is sent. For the MONF, SPLTA, SPLTB, SPLTF, LOOPF, MONEF, and SPLTEF test modes, if current F-End and Tap Ports are on asynchronous interface and have different line code settings, a warning notice is sent. If more than one of these conditions exist, only one warning notice is sent. These warning notices appear before the terminating semicolon.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M e DENY
r
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**e Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**i Tap Port (TAP):**  
**(EC1):** EC-1 Port: {1-32}-{1-15}  
**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the Test Access Point, which is represented by the port that is being used as the test port for this test session.

**j E-End Port (E-PORT):**  
**(EC1):** EC-1 Port: {1-32}-{1-15}  
**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the E-End Port for the test session.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M e "i:j,k,l,m,n,o,p,q" (Normal Response)  
r (Error Response)

## Output Parameters (Continued)

---

- k F-End Port (F-PORT):**  
(EC1): EC-1 Port: { {1-32}-{1-15} }  
(T1): DS1 Port: { #<1-38 TRANSID LEGAL CHARACTERS>,  
{1-32}-{1-31}-{1-28} }  
(VT1): VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the F-End Port for the test session. If the E-End Input Port is in the IDLE state, this parameter is omitted.
- l E-End Input Health (E-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the E-End.
- (EC1|VT1): Specifies the input signal health of the EC-1 port that supports the E-End (EC-1|VT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 port that supports the E-End (T1) Input Port.
- **DRVN** (driven) - indicates that a valid signal is expected at the Port, the Port is being monitored for incoming failures, and no incoming failures are currently detected.
  - **INC** - is the same as DRVN when incoming failures are detected.
  - **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
  - **INIT** - is used for an initialized (unset) value. In this case, the Port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN.
- m F-End Input Health (F-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the F-End. If the F-End Port is omitted, this parameter is omitted.
- (EC1|VT1): Specifies the input signal health of the EC-1 port that supports the F-End (EC-1|VT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the F-End (T1) Input Port.
- The parameter values have the same meaning as those given for the E-SIG parameter (l).

# CHG-TACC-{EC1IT1IVT1}

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M e "i:j,k,l,m,n,o,p,q" (Normal Response)  
r (Error Response)

## Output Parameters (Continued)

---

n **E-End Output Mode (E-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the E-End.

(T1): The value QRSS is not applicable to the DS1 ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

o **F-End Output Mode (F-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the F-End. If the F-End Port is omitted, this parameter is omitted.

(T1): The value QRSS is not applicable to the DS1 ports on the SONET interfaces.

The parameter values have the same meaning as those given for the E-OMODE parameter (n).

p **E to F Special Connection Status (EF-STAT):**  
{ RDLD }

Specifies any special status associated with the E-to-F connection that impacts test access. This parameter is omitted if no special status is associated with the E-to-F connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.

q **F to E Special Connection Status (FE-STAT):**  
{ RDLD, EFONLY }

Specifies any special status associated with the F-to-E connection that impacts test access. This parameter is omitted if no special status is associated with the F-to-E connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.
- **EFONLY** - indicates that there is no F-to-E connection, only an E-to-F connection.

**Output Format**

---

TID YY-MM-DD HH:MM:SS  
 M e "i:j,k,l,m,n,o,p,q" (Normal Response)  
 r (Error Response)

**Output Parameters (Continued)**

---

r **Error Code (ERRCDE):**  
 { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack not equipped
ERLC	Red-lined circuit
IDMS	Input data missing
IDRG	Input data out of range
IDNV	Input data not valid
IDNV	Even numbered Port specified for MONEF or SPLTEF
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped abruptly before completion
SACC	Ports already cross-connected
SARB	All resources are busy
SCAT	E-End or F-End port is already under test
SNCC	E-End and F-End not cross-connected
SNIS	UC not in service
SNML	No test access set up in input testport
SNPV	Circuit pack not provisioned
SNPV	PM function is active on PMGR
SNVS	Port(s) under test, is a testport, or not in valid state
SNVS	Invalid change of F-End for MONF, SPLTB, SPLTF, LOOPF, MONEF, or SPLTEF
SNVS	Invalid change of two-way test mode with one test mode being SPLTA
SNVS	Invalid change of output mode of idle E-End or idle F-End to <b>TERM</b> for SPLTF, LOOPF, or SPLTEF
SNVS	Invalid change of output mode of E-End or F-End to <b>QRSS</b> without QRSS input provisioned

## CHG-TACC-{EC1IT1IVT1}

### Error Code Listing (Continued)

---

<b>ERRCDE</b>	<b>Condition</b>
SNVS	Invalid test mode change for two-way test access
SNVS	Invalid test mode change with E-End and F-End both mapped, but not to each other
SOSF	UC out of service or failed
SOSF	Circuit pack bad or failed
SROF	Input command failed
SROF	Database access failure in general
SSTP	Execution stopped gracefully before completion

## CONN-PM-T1

### INPUT FORMAT

---

CONN-PM-T1 : [a] : b, c : [d] : [e] ;

**Command Name:** Connect Performance Monitoring T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command starts camp-on DS1 performance monitoring on the specified DS1 ports.

**Notes:** This command can be used for DS1 ports on DS1, DS3, or STS1 Interface Modules if no SONET cross-connection is up on those ports.

If the Active Signal Type of the port is not T1, this command is denied with the error code IDNV.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Monitored DS1 Port (MONPORT):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple DS1 Ports within the same DS3 equivalent can be specified.

Specifies the DS1 Input Port or group of DS1 Input Ports that are being put under performance monitoring.

c       **Performance Monitored DS1 Port (MONPORT):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple DS1 Ports residing within the same circuit pack can be specified.

Specifies the performance monitoring DS1 Port or group of performance monitoring ports on the PMGR circuit pack.

## CONN-PM-T1

### Input Format

---

CONN-PM-T1: [a]:b,c:[d]:[e];

### Input Parameters (Continued)

---

d        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Special Service Type (SST):**  
          { RDL, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies whether the performance monitoring connection is red-lined.

Any performance monitoring connection that is specified to be red-lined when set up must also have red-lined specified when it is disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non-red-lined) performance monitoring connection is also denied.

- **RDL** - indicates that the connection is red-lined.
- **NOVAL** - indicates that the connection is not red-lined.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

d        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

f        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNC	The framing format of the port specified in the FROM field is not SF or ESF
IDNC	The port specified in the TO field is not of type PMGR
IDNC	Try to camp-on for an unframed format signal (facility)
IDNV	FROM circuit pack is not a SWIF1 circuit pack for a DS1 interface module, or is not a camp-on PMGR circuit pack
IDNV	Active Signal Type is not T1
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PKOR	Bad circuit pack number
PLNA	User is not logged in
SABT	Database access failed
SABT	Failed to set/clear cross-connection
SACC	FROM Port is camped-on already
SACC	TO Port is camped-on already, or is not provisioned as a manual camp-on port

## CONN-PM-T1

### Error Code Listing (Continued)

---

<b>ERRCDE</b>	<b>Condition</b>
SARB	No path is available through the switch to set up the cross-connect
SNPV	Circuit pack not provisioned
SNVS	MC is not in service
SROF	Database cannot be locked or committed
SROF	UC cannot be accessed

## CONN-TACC-{EC1|T1|VT1}

### INPUT FORMAT

---

CONN-TACC-{EC1|T1|VT1}: [a]:b,c, [d]: [e]: : [f]: [g];

**Command Name:** Connect Test Access {EC1|T1|VT1}

**Command Category:** Test access

**User Privilege Code (UCFC/UCAL):** T2

**Abortable:** No

**REPT DBCHG Message:** Yes

### Purpose

---

This command creates a test access connection.

**Notes:** The following restrictions to Test Mode apply based on mapping:

- If both the input and output of the E-End are *mapped* to the same port (two-way connection without broadcast connections), all Test Modes are allowed.
- If the input of the E-End is in the IDLE state, the only Test Modes allowed are MONE, SPLTE, and LOOPE.
- If the input of the E-End is *mapped* and the output of the E-End is in the IDLE state (one-way connection), the only Test Modes allowed are MONE, SPLTA, SPLTE, and LOOPE.
- If both the input and output of the E-End are *mapped*, but to different Ports (separate one-way connections), the only Test Modes allowed are MONE and SPLTA.
- If the E-End is a broadcast leg, the only Test Mode allowed is MONE.

The two-way connections, one-way connections, and separate one-way connections mentioned above refer to *pure* connections (that is, connections without additional broadcast legs, loopback connections, or performance monitoring connections).

The following restrictions to Test Mode apply for red-lined (RDLD) circuits:

- If there is an E-to-F connection and it is RDLD, the following Test Modes cannot be entered with the CONN-TACC-{EC1|T1|VT1} command: SPLTA, SPLTE, SPLTF, LOOPE, LOOPF, SPLTEF.
- If there is an F-to-E connection and it is RDLD, the following Test Modes cannot be entered with the CONN-TACC-{EC1|T1|VT1} command: SPLTB, SPLTE, SPLTF, LOOPE, LOOPF, SPLTEF.

To enter the above modes, a subsequent CHG-ACCMD-{EC1|T1|VT1} must be given.

The following restriction applies to the two-way Test Modes:

- If MONEF or SPLTEF is specified, two Taps are used: the one specified, which must end in an odd-numbered value, and the next Port in sequential order. For example, if the Tap specified is 3-7-1, both this (T1|VT1.5) Port and Port 3-7-2 are taken as Taps for this test session. Both these (T1|VT1.5) Ports must meet

## CONN-TACC-{EC1|T1|VT1}

the requirements for a Tap (as described in the **TAP** parameter [b]). If the Tap specified is 3-7, both this EC-1 Port and Port 3-8 are taken as Taps for this test session. Both these EC-1 Ports must meet the requirements for a Tap (as described in the **TAP** parameter [b]).

The Output Mode of Ports under test is temporarily modified in the following manner:

- (**EC1 | VT1**) : For the values SPLTE and LOOPE, the Output Mode of the F-End Output Port, along with any other Output Ports the E-End is transmitting to, is automatically set to IDLE. For the value SPLTEF, the Output Mode of Output Ports the E-End is transmitting to (except the F-End Output Port), is automatically set to IDLE.
- (**T1**) : For the values SPLTE and LOOPE, the Output Mode of the F-End Output Port, along with any other Output Ports the E-End is transmitting to, is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE. For the value SPLTEF, the Output Mode of the Output Ports the E-End is transmitting to (except the F-End Output Port), is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE.
- (**EC1 | VT1**) : For the values SPLTF and LOOPF, the Output Mode of the E-End Output Port, along with any other Output Ports the F-End is transmitting to, is automatically set to IDLE. For the value SPLTEF, the Output Mode of Output Ports the F-End is transmitting to (except the E-End Output Port), is automatically set to IDLE.
- (**T1**) : For the values SPLTF and LOOPF, the Output Mode of the E-End Output Port, along with any other Output Ports the F-End is transmitting to, is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE. For the value SPLTEF, the Output Mode of the Output Ports the F-End is transmitting to (except the E-End Output Port), is automatically set to QRSS (if the ports are on asynchronous interfaces and a QRSS source has been provisioned for the system) or to IDLE.

The Output Mode on all of these Ports is restored to their previous values when the Test Mode is changed, or when the test session is released.

For the **ENT-ROLL**, **CONN-TACC**, **ENT-CONF**, and **ENT-CRS** commands, these commands are denied when circuit packs are failed and not protected.

Test access is not allowed on a port that is being looped back with the **OPR-LPBK- (EC1 | T1 | T3 | VT1)** command. Test access is also not allowed on a port that is cross-connected to another port that has been looped back.

If test access is active on a port, then any subsequent loopback command on that port is denied with the error code **SNVS** until the test access is taken down. However, if the port is only a testport without any active test access on it, loopback is allowed.

If a loopback is active on a port, then any subsequent test access command on that port is denied (**SNVS**) unless the loopback is a far-end LPBKM.

Test access is not allowed on a port that has a PM connection on it.

The Test Mode SPLTE is the Test Mode required for writing the Test Signal Identification. The Output Mode of the DS1 Port must be set to **NORM** before the DS1 Signal and the Test Signal Identification are observable at the Output DS1 Port.

Test access connections with link association (see the **LASSO** parameter [g]) are released on manual or autonomous log out.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual (AT&T 365-340-700)* for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b       **Tap Port (TAP):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple addressing is not allowed.

Specifies the Test Access Point, which is the port to be used as the testport for this test session. Both the input and output of a port must be in the IDLE-REL state (see the **State Names** appendix), or the command is denied.

**(T1):** The Tap Port can be on a DS1 interface, MUX, or SMUX circuit pack.

**(EC1VT1):** The Tap Port can be on an SMUX circuit pack.

- c       **E-End Port (E-PORT):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple addressing is not allowed.

Specifies the E-End Port for the test session.

**(T1):** The E-End Port can be on a DS1 interface, MUX, or SMUX circuit pack.

**(EC1VT1):** The E-End Port can be on an SMUX circuit pack.

## CONN-TACC-{EC1|T1|VT1}

### Input Format

---

CONN-TACC- {EC1|T1|VT1} : [a] : b, c, [d] : [e] :: [f] : [g] ;

### Input Parameters (Continued)

---

- d        **(Current F-End) Port (CURR-F-PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, NOVAL }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, NOVAL }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** Multiple addressing is not allowed.

Specifies the current F-End Port for the test session.

**(T1):** The F-End Port can be on a DS1 interface, MUX, or SMUX circuit pack.

**(EC1|VT1):** The F-End Port can be on an SMUX circuit pack. The following restrictions apply:

- If this parameter is given, the E-End Input Port must be mapped to the current F-End Output Port. In particular, if the E-End Input Port is in the IDLE state, this parameter must be omitted.
- If the E-End Input Port is mapped to exactly one Output Port, this parameter is optional and, whether it is given or not, this Output Port becomes the current F-End Port.
- If the E-End Input Port is mapped to more than one Output Port (broadcast), and if this parameter is omitted, the current F-End Port defaults to the port, if any, that forms a two-way connection with the E-End Port. If there is no such connection, this parameter must be given.

- e        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- f        **Test Mode (TSTMDE):**  
          { MONE, MONF, SPLTA, SPLTB, SPLTE, SPLTF, LOOPE, LOOPF, MONEF,  
          SPLTEF }

**Default:** MONE

**Initial System Value:** None

**Addressing Rules:** None

Specifies the initial test mode. See the **Notes** section at the beginning of this command for restrictions, and for special handling of the Output Mode associated with different Test Modes.

### Input Format

---

CONN-TACC- {EC1|T1|VT1} : [a] : b, c, [d] : [e] : : [f] : [g] ;

### Input Parameters (Continued)

---

g        **Link Association (LASSO):**  
          { Y, N }

**Default:** Y

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether (**Y** or yes) or not (**N** or no) the test session is to be associated with the link on which this command is given. When a test session is associated with a link, the test session is automatically released (if permitted by the current system state) if the user is logged out on that link, or if the Main Controller (MC) is restored to service.

## RESPONSES

---

### Normal Response

---

#### (EC1IVT1):

```
TID YY-MM-DD HH:MM:SS
M e COMPLD
/* TAP: E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"h:i,j,k,l,m,n,o,p"
[ /* WARNING: SIGNAL LABEL MISMATCH */]
```

i

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M e COMPLD
/* TAP: E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"h:i,j,k,l,m,n,o,p"
[ /* WARNING: AMI/B8ZS MISMATCH */]
```

**(T1):** For the MONE, SPLTA, SPLTB, SPLTE, LOOPE, MONEF and SPLTEF test modes, if E-End and Tap Ports are on asynchronous interface and have different line code settings (that is, AMI and B8ZS), a warning notice is sent. For the MONF, SPLTA, SPLTB, SPLTF, LOOPF, MONEF, and SPLTEF test modes, if current F-End and Tap Ports are on asynchronous interface and have different line code settings, a warning notice is sent. If more than one of these conditions exist, only one warning notice is sent. These warning notices appear before the terminating semicolon.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M e DENY
q
[ "<parsable text string>"]
;
```

### Output Parameters

---

e **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

h **Tap Port (TAP):**  
**(EC1):** EC-1 Port: {1-32}-{1-15}  
**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the Test Access Point, which is represented by the port that is being used as the test port for this test session. It is identical to the port entered in the **TAP** parameter (b) of the input command.

i **E-End Port (E-PORT):**  
**(EC1):** EC-1 Port: {1-32}-{1-15}  
**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the E-End Port for the test session.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M e "h:i,j,k,l,m,n,o,p" (Normal Response)  
q (Error Response)

## Output Parameters (Continued)

---

- j F-End Port (F-PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the F-End Port for the test session. If the E-End Input Port is in the IDLE state, this parameter is omitted.
- k E-End Input Health (E-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the E-End.
- (EC1|VT1): Specifies the input signal health of the EC-1 Port that supports the E-End (EC-1|VT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the E-End DS1 Input Port.
- **DRVN** (driven) - indicates that a valid signal is expected at the Port, the Port is being monitored for incoming failures, and no incoming failures are currently detected.
  - **INC** - is the same as DRVN when incoming failures are detected.
  - **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
  - **INIT** - is used for an initialized (unset) value. In this case, the Port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN.
- l F-End Input Health (F-SIG):**  
{ DRVN, INC, NDRVN, INIT }
- Specifies the Input Signal Health of the F-End. If the F-End Port is omitted, this parameter is omitted.
- (EC1|VT1): Specifies the input signal health of the EC-1 Port that supports the F-End (EC-1|VT1.5) Input Port.
- (T1): Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the F-End DS1 Input Port.
- The parameter values have the same meaning as those given for the E-SIG parameter (k).

# CONN-TACC-{EC1IT1IVT1}

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M e  
"h:i,j,k,l,m,n,o,p" (Normal Response)  
q (Error Response)

## Output Parameters (Continued)

---

m **E-End Output Mode (E-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the E-End.

(T1): The value QRSS is not applicable for the DS1 ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

n **F-End Output Mode (F-OMODE):**  
(EC1IVT1): { NORM, TERM, AIS }  
(T1): { NORM, TERM, AIS, QRSS }

Specifies the Output Mode of the F-End. If the F-End Port is omitted, this parameter is omitted.

(T1): The value QRSS is not applicable for the DS1 ports on the SONET interfaces.

The parameter values have the same meaning as those given for the E-OMODE parameter (m).

o **E to F Special Connection Status (EF-STAT):**  
{ RDLD }

Specifies any special status associated with the E-to-F connection that impacts test access. This parameter is omitted if no special status is associated with the E-to-F connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.

p **F to E Special Connection Status (FE-STAT):**  
{ RDLD, EFONLY }

Specifies any special status associated with the F-to-E connection that impacts test access. This parameter is omitted if no special status is associated with the F-to-E connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.
- **EFONLY** - indicates that there is no F-to-E connection, only an E-to-F connection.

**Output Format**

---

TID YY-MM-DD HH:MM:SS  
 M e  
 "h:i,j,k,l,m,n,o,p" (Normal Response)  
 q (Error Response)

**Output Parameters (Continued)**

---

q **Error Code (ERRCDE):**  
 { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack not equipped
ERLC	Red-lined circuit
IDMS	Input data missing
IDRG	Input data out of range
IDNV	Input data not valid
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped abruptly before completion
SACC	Ports already cross-connected
SACC	DS1 Port (Input or Output) is in the MAP-REL state and Test Mode other than MONE is specified
SAIS	Port under test or is a testport
SARB	Specified path not available in the switch
SCAT	E-End or F-End port is already under test
SNCC	E-End and F-End not cross-connected
SNIS	UC not in service
SNML	No test access set up in input test port
SNPV	Circuit pack not provisioned
SNPV	PM function is active on PMGR
SNVS	Ports not in valid state

## CONN-TACC-{EC1IT1IVT1}

### Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SOSF	UC out of service or failed
SOSF	Circuit pack bad or failed
SROF	Input command failed
SSTP	Execution stopped gracefully before completion

## CPY-MEM

### INPUT FORMAT

---

CPY-MEM: [a] :: [b] : c, d, e : [f] : [g] ;

**Command Name:** Copy Memory  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

Entering this command copies either program data or database from one memory device to another.

**Notes:** This command is denied if the System Identifiers (System Type, System Release, and TID) stored in working memory and the System Identifiers stored in the Database on PRI or SEC do not match. The denial takes the form of an error response and contains free-format text lines as follows:

```
/* This command was denied because the System Identifiers */
/* (System Type, System Release, and TID) stored on the (FROM) MEMORY */
/* TYPE and System Identifiers stored on the (TO) MEMORY TYPE of the */
/* DACS IV-2000 are different. Use the RTRV-SYSID command to */
/* retrieve the System Identifiers for comparison. */
```

The following functions are supported by this command:

From	To	Class	Function
WKG	PRI	DBASE	Copy dirty pages from WKG to PRI (6)(7)(9)
PRI	SEC	DBASE	Make backup copy of database on SEC (1)(4)
PRI	SEC	PROG	Make backup copy of release on SEC (1)(12)
SEC	PRI	DBASE	Read in new database from SEC (2)(3)(11)
SEC	PRI	PROG	Download new release (2)(10)
INIT	PRI - {1, 2}	FORMAT	Initialize and reformat entire PRI (5)(9)
INIT	PRI	JRNL	Initialize the journal file on PRI (2)(5)
INIT	SEC	FORMAT	Initialize and reformat entire SEC (8)(9)

- (1) MC must be in IS state to perform this function.
- (2) MC must be in OOS-MCOND state to perform this function.
- (3) Perform database conversion if necessary.
- (4) Requires up to 6 minutes to complete.
- (5) PRI must be in OOS-MTCE state.
- (6) If MC is in OOS-MCOND, FRCD is required for the BMDE parameter (g).
- (7) If the MC is in the IS state the BMDE parameter (g) is not supported.
- (8) SEC must be removed from service.
- (9) Requires up to 15 minutes to complete.
- (10) Requires up to 11 minutes to complete.
- (11) Requires up to 12.5 minutes to complete.
- (12) Requires up to 8 minutes to complete.

## CPY-MEM

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to correlate an input command with its associated output response.

- c        **FROM Memory Type (FROM):**  
          { WKG, PRI, SEC, INIT }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the memory type of the memory where the data is being transferred from. See the table in the **Notes** section at the beginning of this command for more information.

- **WKG** - is working (system) memory.
- **PRI** - is primary nonvolatile backup (PRI).
- **SEC** - is secondary nonvolatile backup (SEC).
- **INIT** - is used when initializing the primary memory.

- d        **TO Memory Type (TO):**  
          { PRI, PRI-{1,2}, SEC }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** PRI-{1,2} is used only when the **FROM** parameter (c) is INIT.

Specifies the memory where the data is being transferred to. See the table in the **Notes** section at the beginning of this command for more information.

- **PRI** - is primary nonvolatile backup (PRI).
- **SEC** - is secondary nonvolatile backup (SEC).

## Input Format

---

CPY-MEM: [a] :: [b] : c, d, e : [f] : [g] ;

## Input Parameters (Continued)

---

e        **Memory Class (MEMCLASS):**  
          { PROG, DBASE, JRNL, FORMAT }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the class of memory to be copied.

- **PROG** - indicates program data.
- **DBASE** - specifies database.
- **JRNL** - specifies an initialization of the journal file on the given to memory type, PRI only.
- **FORMAT** - is used to initialize and format the entire disk of the given TO memory type (parameter d).

f        **Media Validation (MEDVALD):**  
          { Y, UPGRADE }

**Default:** Y

**Initial System Value:** None

**Addressing Rules:** None

Specifies the mode for validating the memory device.

- **Y (Yes)** - specifies media validation before a memory transfer executes.
- **UPGRADE** - specifies media validation before a software release upgrade occurs.

g        **Backup Mode (BMDE):**  
          { FRCD, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

This parameter is only specified for a **WKG** to **PRI** backup when the MC is OOS-MCOND. If the MC is IS or if any other backup operation is being performed, this parameter must be **NOVAL**.

## CPY-MEM

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
h
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

b **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to correlate an input command with its associated output response.

h **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears indicating the condition that caused it:

ERRCDE	Condition
ENMD	No optical disk in SEC disk drive
ENRI	The SEC is write-protected (not equipped for retrieving specified information)
IDNV	Input data not valid
IISP	Syntac or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SCCF	Secondary cartridge checksum failure
SDNC	Data in input command is not consistent with the provisioned object entity
SMVF	Media validation failed
SNDB	Forced WKG to PRI transfer denied because MC is in OOS-MCOND as a result of being booted (no database)
SNIS	PRI, SEC, or MC is not in service
SNOS	PRI or SEC is not out of service or MC is not in OOS-MCOND state
SNST	Status, execution could not be started
SWFA	Status, working entity failed

## CPY-TH-T1

### INPUT FORMAT

---

CPY-TH-T1 : [a] : b, c : [d] :: [e], [f] ;

**Command Name:** Copy Threshold T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

#### Purpose

---

This command copies all of the threshold values that were set for monitored parameters from one DS1 Port to another DS1 Port or to a range of up to 28 DS1 Ports.

**Notes:** The framing format of the destination ports (parameter c) must be the same as the framing format of the source port (parameter b), otherwise this command is denied. The framing format is specified in the **ED-T1** command.

For copying far-end thresholds, the far-end Network Terminating Equipment (NTE) of the destination ports (parameter c) must be the same as the far-end NTE of the source port (parameter b). Far-end NTE is specified in the **ED-T1** command.

Threshold settings on a DS1 Port in a DS1 Interface can only be copied to another DS1 Port or range of DS1 Ports that are on DS1 Interfaces.

Threshold settings on a DS1 Port in a MUX or SMUX circuit pack can only be copied to another DS1 Port or range of DS1 Ports that are on MUX or SMUX circuit packs.

If a PMGR circuit pack is present in the destination DS1 Port (parameter c) range, this command is denied.

Depending upon the number of ports to which threshold settings are being copied and the number of monitored parameters involved, the time required for this command to complete varies.

Since the T1 thresholds are retained even if the Active Signal Type is not T1, the source port Active Signal Type need not be T1. However, since the T1 thresholds cannot be modified unless the Active Signal Type is T1, the destination port Active Signal Type must be T1; otherwise, the command is denied with the error code SNVS.

#### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

# CPY-TH-T1

## Input Format

---

CPY-TH-T1:[a]:b,c:[d]::[e],[f];

## Input Parameters (Continued)

---

b        **Source DS1 Port (S-DS1):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Only single addressing can be used.

Specifies the port from which to copy threshold values of monitored parameters.

c        **Destination DS1 Port (D-DS1):**  
          { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified. All of the ports specified must be on provisioned circuit packs, otherwise this command is denied. No more than 28 DS1 Ports may be specified, otherwise the command is denied.

Specifies the DS1 Port, or all of the DS1 Ports associated with the specified groups, to which threshold settings are copied.

d        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Location (LOCN):**  
          { NEND, FEND, ALL }

**Default:** ALL, which indicates both NEND and FEND for DS1 Ports provisioned as an ESF format signal and NEND for DS1 Ports provisioned as an SF format signal.

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location where the threshold must be copied.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.

### Input Format

CPY-TH-T1 : [a] : b, c : [d] : : [e], [f] ;

### Input Parameters (Continued)

f           **Time Period (TMPER):**  
              { 15-MIN, 1-HR, 1-DAY, ALL }

**Default:** ALL indicates 15-MIN and 1-DAY or 1-HR and 1-DAY,  
depending on the provisioned short interval length set for the system  
via **ED-NE**

**Initial System Value:** None

**Addressing Rules:** None

Specifies the accumulation time period for the performance monitoring information.

If **15-MIN** or **1-HR** is the value entered for this parameter, the value must agree with the provisioned value of Short Accumulation Period. Otherwise, this command is denied.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   d COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   d DENY
g
[   "<parsable text string>"
;
```

### Output Parameters

---

d       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

g       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Time period and provisioned short interval are different
IDRG	Port ID out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	None of the ports in the specified range are provisioned
SNPV	Source port unit is not provisioned
SNPV	Source or Destination port is on pack which is not provisioned
SNPV	PMGR circuit pack doing camp-on is not provisioned
SNIS	Destination port unit is not in service
SNIS	Protection unit is not in service
SNIS	PMGR circuit pack's unit controller is not in service
SNVS	The Framing Format of the Source DS1 Port and one or more of the Destination DS1 Ports is different
SNVS	Far-End NTE of Source and Destination DS1 Ports is different

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SNVS	Source port is on PMGR circuit pack or INIT circuit pack
SNVS	A PMGR circuit pack is present in the Destination DS1 Port range
SNVS	Destination port's SWIF circuit pack is in fault state
SNVS	Destination port's Active Signal Type is not T1
SNVS	Destination port is on SMUX circuit pack which is not provisioned as a DS1 port.
SNVS	PMGR circuit pack doing camp-on is in fault state.

# DGN-DET-EQPT

## INPUT FORMAT

---

DGN-DET-EQPT: [a]:b:[c]::[d];

**Command Name:** Diagnose Detail Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command runs diagnostics on equipment upon request, and reports details of the diagnostic results.

**Notes:** This command can be aborted when performing diagnostics on a range of circuit packs by using the **ABT-CMD** command. This command cannot be aborted for the main controller (MC) or MC equipment.

When the MC is selected as the **LOC** parameter (b), both control complexes (CCs) are included.

This command can be performed on the MC and MC equipment while the MC is out of service. The MC equipment are: CPU-{0,1}, CC-{0,1}, UI, MTC-{0,1}, SSC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, SCI-{1,2}, and CILINK-{1,2}-{1-6}. For CC-{0,1} the MC can be in any state for diagnostic tests to be run. For all other equipment, the MC must be in service (IS) to perform this command. If the MC is not in service, the test is not run and is denied with the error code **SNIS**.

When the MC is being diagnosed, all commands entered are acknowledged with the response **RL** (retry later).

Entering **DGN-DET-EQPT** for Synchronizer-related equipment locations can cause auto-restoration if the equipment state for the specified equipment location is **OOS-FLT**. The table on the next page list the rules that define the conditions under which auto-restoration occurs.

Equipment Location	Condition	Restored Equipment Location
DPLL-n	State of TB-n is OOS-FEF and the off-normal condition for DPLL-n was not INT prior to diagnostic execution	SYNC-n, DPLL-n, and any other entities under SYNC-n hierarchy which are in OOS-FEF state
TB-n	State of DPLL-n is OOS-FEF	SYNC-n, TB-n, and any other entities under SYNC-n hierarchy which are in OOS-FEF state
SYNC-n	Off-normal condition for DPLL-n was not INT prior to diagnostic execution	SYNC-n, DPLL-n, TB-n, and any other entities under SYNC-n hierarchy which are in OOS-FEF state.
TX-n	TX-n must be in an out-of-service state either OOS, OOS-MTCE, or OOS-FLT	TX-n

**Input Parameters**

- a **Target ID (TID):**  
 { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b **Equipment Location (LOC):**  
 { MC, CPU-{0,1}, UI, MTC-{0,1}, SSC-{0,1}, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CILINK-{1,2}-{1-6}, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, MUX-{1-32}-{1-31}, MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, MUXPS-{1-32}, DS1RY-{1-32}-{1-4}, SYNC-{0,1}, TX-{0,1}, DPLL-{0,1}, TB-{0,1}, SMUX-{1-32}-{1-15}, SMUXP-{1-32} }  
**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs of the same type can be specified. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location.

CLKDR circuit packs are not valid equipment locations for this parameter. Diagnostics cannot be performed on CLKDR circuit packs because CLKDRs are not controller-visible (that is, no interface exists between the CLKDRs circuit packs and the main controller [MC]).

For **MUX- {1-32} - {1-31}** and **SWIF- {1-32} - {1-8}**, any of these slots may contain a PMGR circuit pack.

# DGN-DET-EQPT

## Input Format

---

DGN-DET-EQPT: [a]:b:[c]::[d];

## Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Selected Diagnostic Phases (SEL-PHASES):**  
          { <4 DIGIT HEX NUMBER>, ALL }

**Default:** Default is ALL tests.  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the particular diagnostics phases to be run for the specified equipment. The definition of tests for the various circuit packs are defined in the **Diagnostic Tests** appendix. This parameter is bit-defined, and more than one test can be selected by OR-ing the values together (see the **Diagnostic Tests** appendix).

If no parameter value is specified, H'FFFF is assigned. Any phases of the diagnostic that cannot be run because of equipment states is skipped. The diagnostic test phases are executed in numerical order until either a test fails or all tests pass. After a test fails, no other tests are performed. For details concerning diagnostic phases and hexadecimal conversion procedures, refer to the appendix on **Diagnostic Tests**.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/ *LOC: PHASES, RESULT, EXPECTED, MEASURED */
"e: f, g, h, i"
.
.
.
"e: f, g, h, i"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
j
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- e Equipment Location (LOC):**  
{ MC, CPU-{0,1}, UI, MTC-{0,1}, SSC-{0,1}, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CILINK-{1,2}-{1-6}, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, MUX-{1-32}-{1-31}, MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, MUXPS-{1-32}, DS1RY-{1-32}-{1-4}, SYNC-{0,1}, TX-{0,1}, DPLL-{0,1}, TB-{0,1}, SMUX-{1-32}-{1-15}, SMUXP-{1-32} }
- Specifies the individual circuit pack from the range specified in the LOC parameter (b) of the input command.
- f Actual/Failed Diagnostic Phases (PHASES):**  
{ <4 DIGIT HEX NUMBER> }
- If the result is PASS, this parameter indicates which diagnostic phases were run. Null phases (those for which tests do not exist for this specified circuit pack) are indicated as 1 (a value of H'FFFF appears if all tests were run, refer to the appendix on **Diagnostic Tests** for details). If the result is FAIL, this parameter indicates the phase in which the failure occurred. If the RESULT parameter (g) is TNE, this parameter indicates the phase requested was not run.

# DGN-DET-EQPT

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"e:f,g,h,i" (Error Response)  
j

## Output Parameters (Continued)

---

g **Result (RESULT):**  
{ PASS, FAIL, TRN }

Specifies the results of the diagnostics.

- **PASS** - indicates that all tests that ran passed.
- **FAIL** - indicates that one of the tests failed.
- **TRN** - indicates that the phase requested was not run.

h **Expected Diagnostic Data (EXPECTED):**  
{ <1-40 LEGAL CHARACTERS enclosed in \"> }

This parameter (appears if the result of this command is **FAIL**) indicates the expected values of diagnostic data associated with the phase that failed. The parameter is enclosed in escaped quotes (\"). This parameter is currently omitted, but may be used in future releases.

i **Measured Diagnostic Data (MEASURED):**  
{ <1-40 LEGAL CHARACTERS enclosed in \"> }

This parameter (appears if the result of this command is **FAIL**) provides an explanation for failures that involve clock or data signals received from another circuit pack. For most failures, this parameter is omitted. The parameter is enclosed in escaped quotes (\").

j **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack is absent or blank
ENEQ	For interface circuit packs, the circuit pack is in AVAIL state
ENEQ	DS1RY or protection DS1RY circuit pack is absent
ENHS	For TB or TX entities, DPLL is not present
ENRE	Wrong circuit pack code name
IDNV	Diagnostic phases are specified but no tests are valid for the given circuit pack
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	DS1RY or MUXPS circuit pack is in ACT state

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SARB	PRI or SEC circuit pack is busy with system disk access
SNIS	Interface module or protection interface module is in OOS state
SNIS	For the control complex (CC) and CC circuit packs (CPU, MTC, and SSC), the circuit pack is not active and CC is out of service
SNIS	For the ECI or DS3PM circuit packs, the circuit pack is in OOS state
SNIS	For the UC circuit pack, the UC is in OOS state
SNIS	Main controller (MC) is not in service (for circuit packs besides MC and MC equipment)
SNOS	CILINK ( <b>CILINK</b> -{1, 2}-{1-6}) or TX ( <b>TX</b> -{0, 1}) circuit pack is not out-of-service-maintenance
SNPV	For UC resident circuit packs, interface module is not provisioned
SNPV	For SYNC entities, packs are in the AVAIL state
SNVS	For the SSC circuit pack, the MC is in service and the CC is active
SNVS	For TX entities, DPLL is in the OOS-FLT state
SNVS	Status, not in a valid state
SPFA	Protection DS1RY circuit pack is in FLT or TSTF state
SPFA	DS1IP or MUXP circuit pack is in FLT, TSTF, or ABS state
SROF	SYNC entities cannot be accessed
SSTP	Response to the <b>ABT-CMD</b> command

# DISC-PM-T1

## INPUT FORMAT

---

DISC-PM-T1: [a]:b,c:[d]:[e];

**Command Name:** Disconnect Performance Monitoring T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command stops camp-on performance monitoring of the DS1 Port(s) specified in the **DS1** parameter (b).

**Notes:** This command can be used for DS1 ports on DS1, DS3, or STS1 Interface Modules if the Active Signal Type is **T1**.

If the connection from the Monitored DS1 Port (parameter b) to the Performance Monitoring DS1 Port (parameter c) is a red-lined circuit, you must supply the appropriate value for the **SS $\pi$**  parameter (e), otherwise this command is denied with the error code **ERLC**.

If the connection from the Monitored DS1 Port (parameter b) to the Performance Monitoring DS1 Port (parameter c) is not a red-lined circuit and you indicated that it was with the **SS $\pi$**  parameter (e), this command is denied with the error code **IDNV**.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Monitored DS1 Port (MONPORT):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple DS1 Ports within the same DS3 equivalent can be specified.

Specifies the DS1 Input Port or group of DS1 Input Ports that is currently under camp-on monitored.

## Input Format

DISC-PM-T1 : [a] : b, c : [d] : [e] ;

## Input Parameters (Continued)

c        **Performance Monitored DS1 Port (MONPORT):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple DS1 Ports residing within the same circuit pack can be specified. If this parameter is provided and it disagrees with the camp-on configuration, the command is denied.

Specifies the performance monitoring DS1 Port or group of performance monitoring ports.

d        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Special Service Type (SST):**  
          { RDLD, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether the performance monitoring connection is red-lined.

Any camp-on connection that is specified to be red-lined when set up must also have red-lined specified when it is disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non-red-lined) performance monitoring connection is denied.

- **RDLD** - indicates the performance monitoring connection is red-lined.
- **NOVAL** - indicates that the connection is not red-lined.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

d        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

f        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ERLC	Red-lined circuit
IDNV	Not a red-lined circuit
IDRG	DS1 Port out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Database access failed
SABT	Failed to set/clear cross-connection
SNCC	FROM port is not currently camped-on
SNPV	Circuit pack is not provisioned
SNVS	MC is not in service
SROF	Database cannot be locked or committed
SROF	UC cannot be accessed

## DISC-TACC

### INPUT FORMAT

---

DISC-TACC: [a] :b: [c] ;

**Command Name:** Disconnect Test Access  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T2  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command disconnects a DS1, VT1.5, or EC-1 test session, or all test sessions associated with a user and with any link, and restores the original cross-connections.

**Notes:** When **ALL** is specified for **TAP** parameter (b), any test sessions set up by a user that are associated with this **or any other** link are disconnected. Test sessions that are not associated with any link (see the **RTRV-TACC-T1**, **RTRV-TACC-VT1**, and **RTRV-TACC-EC1** commands) are not affected.

Disconnecting test access has the following effect on Output Mode:

- If, at the time of disconnect, the Test Mode is **SPLTE**, **SPLTEF**, or **LOOPE**, the Output Modes of all ports that the E-End is transmitting to are restored to the values that they had before this Test Mode was entered.
- If, at the time of disconnect, the Test Mode is **SPLTF**, **SPLTEF**, or **LOOPF**, the Output Modes of all ports that the F-End is transmitting to are restored to the values that they had before this Test Mode was entered.
- In all other cases, the Output Modes of the ports under test are not affected.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

# DISC-TACC

## Input Format

---

DISC-TACC: [a] :b: [c] ;

## Input Parameters (Continued)

---

- b        **Tap Port (TAP):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, ALL }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, ALL }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, ALL }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Test Access Point, which is represented by the DS1, VT1.5, or EC-1 Port that is being used as the test port for this test session. If this port is not an active TAP, the command is denied.

- **ALL** - indicates all current test sessions that are associated with a user that gave the command, and with any link are disconnected.

If some of the test sessions implicated by specifying **ALL** cannot be released (but at least one can), the command completes with the termination report code of **PRTL** (partial) instead of **COMPLD** (completed). An example of a test session that cannot be released is a test session occurring on a unit controller that is out of service. If this happens, a **RTRV-TACC-T1**, **RTRV-TACC-VT1**, or **RTRV-TACC-EC1** command must be given to determine which test sessions were unable to be released. Individual **DISC-TACC** commands can be given (but are denied) to determine the reason for denial.

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

In the case of partial completion (see the **TAP** parameter [b]), the termination report code **COMPLD** is replaced by **PRTL**.

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* TAP: E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"m:n,o,p,q,r,s,t,u"
.
.
.
"m:n,o,p,q,r,s,t,u"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
v
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- m**        **Tap Port (TAP):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the Test Access Point, which is represented by the DS1, VT1.5, or EC-1 Port that is being used as the test port for this test session.
- n**        **E-End Port (E-PORT):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the E-End DS1, VT1.5, or EC-1 Port for the test session.
- o**        **F-End Port (F-PORT):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the F-End DS1, VT1.5, or EC-1 Port for the test session. If the E-End Input Port is in the IDLE state, this parameter is omitted.

# DISC-TACC

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "m:n,o,p,q,r,s,t,u" (Normal Response)  
v (Error Response)

## Output Parameters (Continued)

---

p **E-End Input Health (E-SIG):**  
{ DRVN, INC, NDRVN, INIT }

Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the E-End Input Port.

- **DRVN** (driven) - indicates that a valid signal is expected at the Port, the Port is being monitored for incoming failures, and no incoming failures are currently detected.
- **INC** - is the same as **DRVN** when incoming failures are detected.
- **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
- **INIT** - is used for an initialized (unset) value. In this case, the Port is considered **NDRVN** until a valid signal is detected, at which time it becomes **DRVN**.

q **F-End Input Health (F-SIG):**  
{ DRVN, INC, NDRVN, INIT }

Specifies the input signal health of the DS1, DS3, or EC-1 Port that supports the F-End Input Port. The parameter values have the same meaning as those given for the **E-SIG** parameter (p). If the F-End Port is omitted, this parameter is omitted.

r **E-End Output Mode (E-OMODE):**  
(T1): { NORM, TERM, AIS, QRSS }  
(EC1IVT1): { NORM, TERM, AIS }

Specifies the Output Mode of the E-End.

(T1): The value **QRSS** is only applicable to DS1 ports on asynchronous interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is **IDLE** for an idle output port.
- **TERM** - is the **IDLE** signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

s **F-End Output Mode (F-OMODE):**  
(T1): { NORM, TERM, AIS, QRSS }  
(EC1IVT1): { NORM, TERM, AIS }

Specifies the Output Mode of the F-End. The parameter values have the same meaning as those given for the **E-OMODE** parameter (r). If the F-End Port is omitted, this parameter is omitted.

(T1): The value **QRSS** is only applicable to DS1 ports on asynchronous interfaces.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "m:n,o,p,q,r,s,t,u" (Normal Response)  
v (Error Response)

## Output Parameters (Continued)

---

t **E to F Special Connection Status (EF-STAT):**  
{ RDLD }

Specifies any special status associated with the E-to-F connection that impacts test access. This parameter is omitted if no special status is associated with the E-to-F connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.

u **F to E Special Connection Status (FE-STAT):**  
{ RDLD, EFONLY }

Specifies any special status associated with the F-to-E connection that impacts test access. This parameter is omitted if no special status is associated with the F-to-E connection, or if there is no F-End.

- **RDLD** - indicates that the E to F connection is red-lined.
- **EFONLY** - indicates that there is no F-to-E connection, only an E-to-F connection.

v **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack not equipped
ERLC	Red-lined circuit
IDMS	Input data missing
IDRG	Input data out of range
IDNV	Input data not valid
IITA	Invalid Target Identifier
IISP	Syntax or punctuation error in entering input command
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped abruptly before completion
SACC	Ports already cross-connected
SCAT	E-End or F-End port is already under test
SNCC	E-End and F-End not cross-connected
SNIS	UC not in service

## DISC-TACC

### Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SNML	No test access set up in input test port
SNPV	Circuit pack is not provisioned
SNPV	PM function is active on PMGR
SNVS	Port under test or is a testport
SNVS	Ports not in valid state
SNVS	MC is not in service
SOSF	UC out of service or failed
SOSF	Circuit pack bad or failed
SROF	Input command failed
SSTP	Execution stopped gracefully before completion

## DLT-CONF-**{STS1|T1|VT1}**}

### INPUT FORMAT

---

DLT-CONF-**{STS1|T1|VT1}** : [a] : b, c : [d] : : : <e>;

**Command Name:** Delete Conference **{STS1|T1|VT1}**  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command disconnects a leg from a two-leg data conference.

**(T1):** The DS1 Ports can be on a DS1, DS3, or STS1 Interface Module.

**Notes:** This command takes down connections set up using **ENT-CRS- (STS1 | T1 | VT1)**, **ENT-CONF- (STS1 | T1 | VT1)**, and **ENT-ROLL- (STS1 | T1 | VT1)**.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **FROM Port (FROM):**  
**(STS1):** STS-1 Port: {1-32}-{1-15}  
**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the FROM port.

## DLT-CONF-**{STS1|T1|VT1}**

### Input Format

---

DLT-CONF-**{STS1|T1|VT1}** : [a] : b, c : [d] : : : <e> ;

### Input Parameters (Continued)

---

c        **TO Port (TO):**

**(STS1):** STS-1 Port: {1-32}-{1-15}

**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}

**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple EC-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the TO port.

d        **Correlation Tag (CTAG):**

      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Inclusive (INCL):**

      INCL = { Y, N }

**Default:** N

**Initial System Value:** None

**Addressing Rules:** None

Specifies the disconnection of red-lined (Special Service Protection, SSP) facilities. This parameter must be **Y** if the circuit is marked as red-lined, or the command is denied.

Any connections that are specified to be red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non red-lined) circuit is denied. Multipoint circuits must use red-lined consistently for all ports in the circuit. If the initial connection from an Input Port is specified as red-lined, all subsequent connections from the same Input Port must also be red-lined. Conversely, if the initial connection is not red-lined, none of the others can be either.

- **Y** (yes) - indicates the cross-connection was marked as red-lined when it was created.
- **N** (no) - indicates the cross-connection was a normal connection when it was created.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M   d COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M   d DENY  
f  
[   "<parsable text string>"]  
;
```

### Output Parameters

---

d        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

f        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ERLC	Red-lined circuit
IDNV	Not a red-lined circuit
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	All resources are busy
SNCC	Specified ports are not cross-connected
SNIS	Interface module specified in the FROM or TO Port is not in service
SNPV	Circuit pack specified in the FROM or TO Port is not provisioned
SNVS	More than one SWCS circuit pack is bad
SNVS	FROM or TO Port is provisioned as QRSS Port, is under test, is a testport, or is in loopback
SOSF	Circuit pack specified in the FROM to TO Port is bad or failed (including corresponding SWIO or SWIF circuit packs)
SOSF	If UC for FROM is all right, TO Port is bad or failed

# DLT-CRS-{STS1|T1|VT1}

## INPUT FORMAT

---

DLT-CRS- {STS1|T1|VT1} : [a] : b, c : [d] : : [e] : <f>;

**Command Name:** Delete Cross Connect {STS1|T1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command takes down a two-way or one-way cross-connect between two ports (designated FROM and TO).

**(T1):** The ports can be on a DS1, DS3, or STS1 Interface Module.

**Notes:** All cross-connections in the DACS IV-2000 are constructed from one-way connections. This command can take down any two-way or one-way connection, whether it was set up using **ENT-CONF-** (STS1|T1|VT1), **ENT-CRS-** (STS1|T1|VT1), or **ENT-ROLL-** (STS1|T1|VT1).

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **FROM Port (FROM):**  
          **(STS1):** STS-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:**  
**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.  
**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.  
**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the FROM Port.

## Input Format

---

DLT-CRS- {STS1 | T1 | VT1} : [a] : b, c : [d] : : [e] : <f> ;

## Input Parameters (Continued)

---

c        **TO Port (TO):**

**(STS1):** STS-1 Port: {1-32}-{1-15}

**(T1):** DS1 Port: {1-32}-{1-31}-{1-28}

**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple EC-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the TO Port.

d        **Correlation Tag (CTAG):**

      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Cross-Connect Type (CCT):**

      { 1WAY, 2WAY }

**Default:** 2WAY

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Cross-Connect Type.

- **1WAY** - indicates a one-way cross-connection.
- **2WAY** - indicates a two-way cross-connection.

## DLT-CRS-{STS1|T1|VT1}

### Input Format

---

DLT-CRS- {STS1 | T1 | VT1} : [a] : b, c : [d] : : [e] : <f> ;

### Input Parameters (Continued)

---

f           **Inclusive (INCL):**  
              INCL = { Y, N }

**Default: N**

**Initial System Value: None**

**Addressing Rules: None**

Specifies the disconnection of red-lined (Special Service Protection, SSP) facilities. This parameter must be **Y** if the circuit is marked as red-lined, or the command is denied.

Any connections that are specified to be red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non red-lined) circuit is denied. Multipoint circuits must use red-lined consistently for all ports in the circuit. If the initial connection from an Input Port is specified as red-lined, all subsequent connections from the same Input Port must also be red-lined. Conversely, if the initial connection is not red-lined, none of the others can be either.

- **Y (yes)** - indicates the cross-connection was marked as red-lined when it was created.
- **N (no)** - indicates the cross-connection was a normal connection when it was created.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
g
[ "<parsable text string>" ]
;
```

### Output Parameters

---

d       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

g       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ERLC	Red-lined circuit
IDNV	Not a red-lined circuit
IDNV	FROM and TO Ports are the same
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	All resources are busy
SNCC	Specified ports are not cross-connected
SNIS	Interface module specified in the FROM or TO Port is not in service
SNPV	Circuit pack specified in the FROM or TO Port is not provisioned
SNVS	FROM or TO Port is provisioned as QRSS Port, is under test, is a testport, or is in loopback
SOSF	Circuit pack specified in the FROM to TO Port is bad or failed (including corresponding SWIO or SWIF circuit packs)
SOSF	If UC for FROM is all right, TO Port is bad or failed

# DLT-EQPT

## INPUT FORMAT

---

DLT-EQPT: [a] :b: [c] , , , , , , ;

**Command Name:** Delete Equipment  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command deletes circuit packs or interface modules that have been created in the system database but not yet provisioned. This command moves circuit packs from the POS, PNDG, EQPD, or PROV state to the AVAIL state.

**Notes:** A circuit pack or interface module can only be deleted if all its associated circuit packs or interface modules in the provisioning sequence have been deleted. The provisioning sequences (the order in which different equipment types must be provisioned and deprovisioned) are described in the **ENT-EQPT** command listing.

This command does not actually delete or reinitialize information associated with the circuit pack in the database. However, you can no longer retrieve this information. When an **ENT-EQPT** is issued, the information associated with the specified circuit pack or interface module in the database is initialized.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

          Specifies the Target ID of the DACS IV-2000.

## Input Format

---

DLT-EQPT: [a]:b:[c],,,,,,;

## Input Parameters (Continued)

---

- b        **Equipment Location (LOC):**  
          { SWIO-{1-32}, CLKDR-{1-32}-{1-4}, DS3PM-{1-32}, MUX-{1-32}-{1-31},  
          MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
          DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15},  
          SMUXP-{1-32}, DPLL-{0,1}, TB-{0,1}, TX-{0,1}, UNIT-{1-32} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Restrictive multiple addressing can be specified for SWIO, CLKDR, MUX, SWIF, DS1IF, DS1RY, and SMUX. For circuit packs and interface modules that are deleted in provisioning groups, specifying any member or members of that group deletes the entire group. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location.

In the DACS IV-2000, SWIO, CLKDR, DPLL, TBS3 (TB), and DS1TX (TX) circuit packs are provisioned in groups of two (two SWIOs, two CLKDRs, two DPLLs, two TBs, or two TXs) due to the architectural relationships between them.

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC */
"d"
.
.
.
"d"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
e
["<parsable text string>"]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
 { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Equipment Location (LOC):**  
 { SWIO-{1-32}, CLKDR-{1-32}-{1-4}, DS3PM-{1-32}, MUX-{1-32}-{1-31},  
 MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, UNIT-{1-32}, DS1IF-{1-32}-{1A-8B},  
 DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15},  
 SMUXP-{1-32}, DPLL-{0,1}, TB-{0,1}, TX-{0,1} }
- Specifies the individual circuit pack from the range or provisioning groups specified in the input command.
- e Error Code (ERRCDE):**  
 { <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | <b>ERRCDE</b> | <b>Condition</b>   |
|---------------|--|
| EHNS          | Equipment hierarchy is not satisfied                             |
| ENEQ          | Illegal circuit pack type for the specified interface module     |
| ENRE          | Unexpected slot type   |
| IDRG          | Illegal range for the specified circuit pack or interface module |
| IIISP         | Syntax or punctuation error in entering input command            |
| IITA          | Invalid Target Identifier  |
| PICC          | User does not have proper privilege code to execute this command |

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
PLNA	User is not logged in
SNAS	Slot is not assigned or provisioned
SNIS	UC is not in service
SNPV	Unit ID not provisioned
SNVS	Loopback up on interface circuit pack
SNVS	Equipment entity has cross-connect
SNVS	Equipment entity has no cross-connect but DS1 port output has QRSS
SNVS	For synchronizer equipment, the specified entity is supplying timing reference or timing to CLKGN circuit packs

# DLT-SECU-AUD

## INPUT FORMAT

---

DLT-SECU-AUD: [a] : : [b] , , , , , , , ;

**Command Name:** Delete Security Audit  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command deletes all recorded security-related events stored in the security audit database. This command is restricted to a user whose UCFC/UCAL is set to S5.

**Notes:** After all security audit records are deleted from the security audit database, the DLT-SECU-AUD command that initiated the deletion is placed in the security audit database.

For further information, see the RTRV-SECU-AUD command listing.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
   /* STATUS, DATE, TIME, LINKID, UID, COMMAND */
   "c,d,e,f,g,h"
   .
   .
   .
   "c,d,e,f,g,h"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
   i
  [ "<parsable text string>" ]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Status (STATUS):**  
{ COMPLD, DENY, AUTO }
- Specifies the status of the recorded security event.
- **COMPLD** - indicates that the command successfully completed.
  - **DENY** - indicates that the command was denied.
  - **AUTO** - indicates the message is due to an autonomous DACS IV-2000 action.
- d Date (DATE):**  
{ {00-99}{01-12}{01-31} }
- Specifies the date the security-related event was detected.
- e Time (TIME):**  
{ {00-23}{00-59}{00-59} }
- Specifies the time the security-related event was detected.
- f Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Specifies the CILINK that the security-related event was initiated over.
- g User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS> }
- Specifies the user identification that initiated the security-related event.

# DLT-SECU-AUD

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M b (Normal Response)  
"c,d,e,f,g,h" (Error Response)  
i

## Output Parameters (Continued)

---

- h Command (COMMAND):**  
{ <see below> }
- Specifies the command verb and modifiers entered causing the recorded security event. This parameter specifies either an input command or autonomous message.
- i Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IITA   | Invalid Target Identifier  |
| PICC   | You do not have the proper privilege code to execute the command |
| PLNA   | Privilege login is not active                                    |

## DLT-SECU-USER

### INPUT FORMAT

---

DLT-SECU-USER : [a] : b : [c] , , , , , , ;

**Command Name:** Delete Security User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command deletes a UID from the system.

**Notes:** For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.

This command **must not** be used if the user to be deleted has set up any test sessions (with the **CONN-TACC- {EC1 | T1 | VT1}** command). If a user with test sessions set up is deleted, the login name associated with the test sessions printed in subsequent test access and loopback messages is unreliable.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b        **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS> }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the user identification name to be deleted.
- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.

# DLT-SECU-USER

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	UID does not exist in the database
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PIOC	User is not a superuser
PLNA	User is not logged in
SARB	User is still logged on
SROF	Database failure

## ED-{EC1|T1|T3|VT1}

### INPUT FORMAT

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,,,,,,,,;
ED-T1:[a]:b:[c]:::<d g h j k l>,,,,,,,,;
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,,,,,,,,;
ED-VT1:[a]:b:[c]:::<g j>,,,,,,,,;
```

**Command Name:** Edit {EC1|T1|T3|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

**(EC1):** This command modifies the provisioning information (parameter values stored in the system database) associated with an EC-1 Port of an SMUX circuit pack within the system.

**(T1):** This command modifies the provisioning information (parameter values stored in the system database) associated with DS1 Ports.

**(T3):** This command modifies the provisioning information (parameter values stored in the system database) associated with a DS3 Port of a DS3 interface circuit pack within the system.

**(VT1):** This command modifies the provisioning information (parameter values stored in the system database) associated with VT1.5 signals within an STS-1 signal.

**Notes:** This command is denied if the specified port(s) is already mapped.

- **Additional Notes For EC1** - When **INIT** is specified as the **ISTAT** parameter (h), only the Loss of Signal (LOS) and Out of Frame (OOF) conditions are checked.

When the **ISTAT** parameter (h) is changed from **DRVN** to **INIT** or **NDRVN**, the system reports active STS-1 alarm condition(s) on an SMUX circuit pack as cleared, and clears the alarm indicators.

An STS-1 Loss of Signal (LOS) or Out of Frame (OOF) condition on an SMUX circuit pack that is mapped and has **ISTAT** parameter (h) set to **NDRVN** or **INIT** is not reported by the system but, as is true for the **ISTAT** set to **DRVN**, the SMUX circuit pack inserts Alarm Indication Signal (AIS) into the switch fabric.

If an STS-1(cc-SPE) cross-connect is set up, all of the information contained within the STS-1 path overhead (for example, received path trace, signal label, etc.) is transmitted transparently through the system.

If the Active Signal Type is **EC1**: (i) **ED-EC1** command is allowed on the two-level EC-1 port and all parameters can be edited, and (ii) **ED-{VT1|T1}** are not allowed for the corresponding 3-level tributary ports.

If Active Signal Type is **VT1**: (i) **ED-EC1** command is allowed on the two-level EC-1 port and all parameters except the **OMODE** parameter (j) can be edited, (ii) **ED-VT1** is allowed on the corresponding 3-level tributaries and all parameters can be edited, and (iii) **ED-T1** is not allowed for the same 3-level tributary port.

## ED-{EC1IT1IT3IVT1}

If the Active Signal Type is T1: (i) ED-EC1 command is allowed on the two-level EC-1 port and all parameters except the OMODE parameter (j) can be edited, (ii) ED-VT1 is allowed on the corresponding 3-level tributaries and all parameters except the OMODE parameter can be edited, and (iii) ED-T1 is allowed for the same 3-level tributary port and all parameters can be edited.

For the TRC parameter (i), space characters are not illegal but are ignored. Comment sequences within a transmit path trace string are removed.

- **Additional Notes For T1** - The states of the input and output sides of a DS1 Port must both be unmapped before the Input Status of that Port can be changed to QRSS.

This command is denied when circuit packs are protected or failed unless the ISTAT parameter (h) is the only parameter being modified.

A DS1 Loss of Signal (LOS) condition on a DS1 Port that is mapped while the ISTAT parameter (h) is set to NDRVN or INIT is not reported by the system. Instead, the DS1 interface circuit pack or module inserts DS1 Alarm Indication Signal (AIS) into the switch fabric.

Editing the DS1 Signal Format and F-End NTE is denied when the addressed DS1 Port is being SCAN monitored. If this denial is received, the scan performance monitoring operation must be stopped (STP-SCANPM-T1) before editing the parameters is allowed. After editing the desired parameters, scan monitoring can be restarted (STA-SCANPM-T1).

When addressing DS1s within DS3 Ports, the following special restrictions apply:

- The command is denied if the LINECDE parameter (l) is specified.
- If the FORMAT is SF or ESF or UNFR and the BER parameter (f) is specified, the command is allowed.
- The command is denied if the ISTAT parameter (h) is set to INIT or QRSS.

- **Additional Notes For T3** - A DS3 Loss of Signal (LOS) or Out of Frame (OOF) condition on a MUX circuit pack that is mapped and has the ISTAT parameter (h) set to NDRVN or INIT is not reported by the system. Instead, the MUX circuit pack inserts DS1 Alarm Indication Signal (AIS) into the switch fabric.

The DS3X-TR, DS3X-RV, DS2X-TR, and DS2X-RV parameters will not affect system behavior unless the MUX2 is provisioned for the same Remote Multiplexer Communications protocol (SBIT, TR9, FEAC) as the far-end multiplexer.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual (AT&T 365-340-700)* for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

- a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,,,,,,,,;
ED-T1:[a]:b:[c]:::<d g h j k l>,,,,,,,,;
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,,,,,,,,;
ED-VT1:[a]:b:[c]:::<g j>,,,,,,,,;
```

## Input Parameters (Continued)

---

- b        **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { UNIT-{1-32}, {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31} }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. All of the ports specified must be on provisioned circuit packs, otherwise this command is denied.

Specifies the port.

**(EC1IT3):** Specifies the (EC-1IDS3) Port, or all of the (EC-1IDS3) Ports associated with the specified interface modules.

**(T1IVT1):** Specifies the (DS1IVT1.5) Port.

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Bit Error Rate Threshold (BER):**  
          **T1IT3):** BER = { 3-9, CURVAL }  
          **(EC1IVT1):** { <not used> }

**Default:** CURVAL

**Initial System Value:** 3

**Addressing Rules:** None

Specifies the Bit Error Rate threshold for the specified port. The domain corresponds to BERs of  $10^{-3}$  through  $10^{-9}$ .

**(T1):** This parameter is used for DS1 Ports and is calculated (and settable) for DS1s within DS3s and DS1s within VT1.5s.

**(T3):** If the **BERM** parameter (f) is set to **PTY**, this parameter can not be set to 3. Otherwise, this command is denied with the error code **IDNV**.

## ED-{EC1IT1IT3IVT1}

### Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,;;;;;  
ED-T1:[a]:b:[c]:::<d g h j k l>,;;;;;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,;;;;;  
ED-VT1:[a]:b:[c]:::<g j>,;;;;;
```

### Input Parameters (Continued)

---

- e        **Line Bit Error Rate Threshold (BERL):**  
          **(EC1):** BERL = { 3, 5–9, CURVAL }  
          **(T1IT3IVT1):** { <not used> }

**Default:** CURVAL  
          **Initial System Value:** 3  
          **Addressing Rules:** None

Specifies the Line Bit Error Rate threshold for the EC-1 Port. The domain corresponds to BERs of  $10^{-5}$  through  $10^{-9}$  for Soft BER, and  $10^{-3}$  for Hard BER.

- f        **Bit Error Rate Metric (BERM):**  
          **(T3):** BERM = { BPV, PTY, CP-BITS, FMA-BITS, FMN-BITS, CURVAL }  
          **(EC1IT1IVT1):** { <not used> }

**Default:** CURVAL  
          **Initial System Value:** BPV  
          **Addressing Rules:** None

This parameter specifies the metric for calculating Bit Error Rates on the DS3 Port. These values are also valid for performance monitoring, with the exception that **BPV** should not be chosen. If **BPV** is chosen for this parameter for performance monitoring, this command reports threshold crossing events. However, the events are not stored in the DS3 performance monitoring registers and the **RTRV-PM-T3** command is denied. The primitive chosen in this parameter is the same one used for performance monitoring. However, if the primitive chosen in this parameter is **CP-BITS**, only CBIT Parity can be selected in **FORMAT** parameter (h). Also, when choosing **PTY**, a Bit Error Rate Threshold of  $10^{-3}$  cannot be used. It must be  $10^{-4}$  or lower. **PTY** refers to P-bits, which is the Line Parity, while **CP-BITS** are the Path Parity.

- **BPV** - indicates BiPolar Violations.
- **PTY** - indicates Parity.
- **CP-BITS** - indicates a copy of the parity bits.
- **FMA-BITS** - indicates F&M bit adjusted.
- **FMN-BITS** - indicates F&M bit non-adjusted.

## Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,;;;;;  
ED-T1:[a]:b:[c]:::<d g h j k l>,;;;;;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,;;;;;  
ED-VT1:[a]:b:[c]:::<g j>,;;;;;
```

## Input Parameters (Continued)

---

g

### Input Status (ISTAT):

(EC1IT3): ISTAT = { INIT, DRVN, NDRVN, CURVAL }

(T1): ISTAT = { INIT, DRVN, NDRVN, QRSS, CURVAL }

(VT1): ISTAT = { DRVN, NDRVN, CURVAL }

**Default:** CURVAL

**Initial System Value:**

(EC1IT3IVT1): DRVN

(T1): INIT for DS1 Ports or DRVN for DS1s within DS3s

**Addressing Rules:** None

Specifies the Input Signal Status.

(EC1): Specifies the Input Signal Status of the EC-1 Port. When this parameter is changed from **DRVN** to **INIT** or **NDRVN**, the system reports active EC-1 alarm condition(s) on the SMUX circuit pack as cleared, and clears the alarm indicators.

(T1): Specifies the Input Signal Status of the DS1 signal. When this parameter is changed from **DRVN** to **INIT** or **NDRVN**, the system reports active DS1 alarm condition(s) on the DS1 Port as cleared, and clears the alarm indicators. For DS1s within VT1.5s, **INIT** is not valid, and the DS1 Input Status is independent of the VT1.5 Input Status within which the DS1 exists.

(T3): Specifies the Input Signal Status of the DS3 Port. When changing this parameter from **DRVN** to **INIT** or **NDRVN**, the system reports active DS3 alarm condition(s) on a MUX as cleared, and clears the alarm indicators.

(VT1): Specifies the Input Signal Status of the VT1.5 signal. When this parameter is changed from **DRVN** to **NDRVN**, the system reports active VT1.5 alarm condition(s) on the EC-1 Port as cleared, and clears the alarm indicators.

The value of this parameter for a T1 or VT1.5 tributary does not change when the input status of the parent EC-1 facility changes. The only indication of the parent's status is reflected by the fact that in the **RTRV-T1** or **RTRV-VT1** commands, the **ISTAT** parameter (k) of the tributary is marked with an asterisk (that is, **DRVN\***, **NDRVN\***) when the parent EC-1 facility is **INIT** or **NDRVN**.

- **INIT** - is used for an initialized (unset) value (in this case, the port is considered not driven until a valid signal is detected, at which time it becomes **DRVN**).

(T1IT3): When this value is specified, only the Loss of Signal (LOS) and Out of Frame (OOF) conditions are checked (that is, Bit Error Rate threshold violations are not considered).

(T1): If a DS1 signal within a DS3 or STS-1 signal is specified as this value, this command is denied.

- **DRVN** (driven) - indicates that a valid signal is expected at the port, and the port is being monitored for failures.

## ED-{EC1IT1IT3IVT1}

### Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,;;;;;  
ED-T1:[a]:b:[c]:::<d g h j k l>,;;;;;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,;;;;;  
ED-VT1:[a]:b:[c]:::<g j>,;;;;;
```

### Input Parameters (Continued)

---

- **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
- **QRSS** - is used to indicate that the DS1 signal is provisioned as the QRSS source for the system. Only one Input Port can be designated as the QRSS Port at any given time. Attempting to specify QRSS for more than one port is denied.

The Input Status of the QRSS Port can not be changed to any other value unless there are no ports with Output Mode of QRSS (that is, you are not allowed to remove the QRSS source from the system while one or more Output Ports are transmitting QRSS).

If a DS1 signal within a DS3 or STS-1 signal is specified as QRSS, this command is denied with an error code of **IDNV**. This value is not allowed for a range command (with more than one DS1 Port specified in the **PORT** parameter [b]).

h **Format (FORMAT):**

**(EC1IVT1):** { <not used> }

**(T1):** DS1 Signal Format: **FMT** = { **ESF**, **SF**, **UNFR**, **CURVAL** }

**(T3):** DS3 Format: **DS3FORMAT** = { **ASYNC**, **CBIT**, **CURVAL** }

**Default:** **CURVAL**

**Initial System Value:**

**(T1):** **UNFR**

**(T3):** **ASYNC**

**Addressing Rules:** None

Specifies the signal type.

**(T1):** Specifies the DS1 signal type for both DS1s terminating at DS1 Ports, and DS1 tributaries terminating at MUX Ports. If the **FENDNTE** parameter (l) is set to **ANSI**, this parameter must be set to **ESF**; otherwise, this command is denied with the error code **IDNV**.

- **ESF** - Extended Super Frame
- **SF** - Super Frame
- **UNFR** - Unframed

**(T3):** Specifies the line format of a DS3 Port, either **ASYNC** or **CBIT**. When DS3 performance monitoring is used with a General Telemetry Processor (GTP), **CBIT** must be specified if a DS3PM circuit pack is provisioned in the DS3 interface module associated with the DS3 Port. When this parameter is set to **ASYNC** mode and you try to access far-end data, the DACS IV-2000 generates a *not available* output response message. If the **BERM** parameter (f) is set to **CP-BITS**, this parameter must be set to **CBIT**; otherwise, this command is denied with the error code **IDNV**.

## Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,,,,,,;  
ED-T1:[a]:b:[c]:::<d g h j k l>,,,,,,;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,,,,,,;  
ED-VT1:[a]:b:[c]:::<g j>,,,,,,;
```

## Input Parameters (Continued)

---

- i       **Transmit Path Trace (TRC):**  
          **(EC1):** TRC = { <1-62 PATH TRACE CHARACTERS>, NOVAL, CURVAL }  
          **(T1IT3IVT1):** { <not used> }

**Default:** CURVAL  
          **Initial System Value:** NOVAL  
          **Addressing Rules:** None

Specifies the 62-byte Common Language Location Identifier (CLLI) string used to allow the intended receiving Path Terminating Equipment (PTE) to verify its continued connection to the DACS IV-2000.

- **NOVAL** - fills the string with null bytes (00 hex).

- j       **Output Mode (OMODE):**  
          **(EC1IVT1):** OMODE = { NORM, TERM, AIS, CURVAL }  
          **(T1):** OMODE = { NORM, TERM, AIS, QRSS, CURVAL }  
          **(T3):** { <not used> }

**Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies what is transmitted from the Output Port. Changing the Output Mode of a Port is not allowed when there is a loopback up on the Port. If the Port's output side is unmapped, then the value **TERM** is not valid. For T1, the Output Mode of any Port (other than the QRSS source) can be set to **QRSS** provided that an Input Port has been designated as the QRSS Port (with the exception of SONET interface ports).

- **NORM** (normal) - is cross-connected data if mapped or an IDLE signal if not mapped. If the DS1 Port is currently under protection, you cannot specify this value.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

## ED-{EC1IT1IT3IVT1}

### Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,;;;;;  
ED-T1:[a]:b:[c]:::<d g h j k l>,;;;;;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,;;;;;  
ED-VT1:[a]:b:[c]:::<g j>,;;;;;
```

### Input Parameters (Continued)

---

k        **DS1 Code Type (LINECDE):**  
          (T1): LINECDE = { AMI, B8ZS, INIT, CURVAL }  
          (EC1IT3IVT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** INIT  
          **Addressing Rules:** None

Specifies the code type for a DS1 Port terminating on a DS1 interface circuit pack, either AMI or B8ZS. This parameter is used for DS1 Ports. If a circuit pack is inserted with the parameter set to **INIT**, the parameter is updated based upon information read from the pack. If **INIT** is specified with a circuit pack present, the parameter is also updated in this manner. If the circuit pack is present and a value is specified other than the one on the circuit pack, the value specified overrides the value on the circuit pack.

The DS1 Code Type can be selected by using this command or by setting a DIP switch on the DS1 interface circuit pack. Refer to the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) for instructions on setting DIP switches on a circuit pack.

l        **Far-End Notification (FENDNTE):**  
          (T1): FENDNTE = { ANSI, NOT-ANSI, CURVAL }  
          (EC1IT3IVT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** NOT-ANSI  
          **Addressing Rules:** None

Specifies whether far-end NTE supporting ANSI standards is associated with the DS1. This command is denied if **ANSI** is specified and the DS1 Signal Format is not **ESF**. To provision for ANSI, both **ESF** and **ANSI** must be specified even if the **FORMAT** parameter (h) is already provisioned for **ESF**.

- **ANSI** - specifies that far-end performance monitoring is performed.
- **NOT-ANSI** specifies that far-end does not support ANSI standards and does not perform far-end performance monitoring.

## Input Format

---

```
ED-EC1:[a]:b:[c]::;<e g i j s t>,;;;;;  
ED-T1:[a]:b:[c]::;<d g h j k l>,;;;;;  
ED-T3:[a]:b:[c]::;<d f g h m n o p q r>,;;;;;  
ED-VT1:[a]:b:[c]::;<g j>,;;;;;
```

## Input Parameters (Continued)

---

m        **DS3 Idle Signal (IDLE):**  
          (T3): IDLE = { ON, OFF, CURVAL }  
          (EC1IT1IVT1): { <not used> }

**Default:** CURVAL

**Initial System Value:** OFF

**Addressing Rules:** None

Specifies the value of the DS3 IDLE Signal.

- **ON** - indicates the DS3 IDLE Signal is transmitted if all 28 DS1 tributaries are unmapped, IDLE-REL.
- **OFF** - indicates that a DS3 signal (composed of 28 DS1 signals) is transmitted.

n        **Remote Multiplex Communications (RMTMUXC):**  
          (T3): RMTMUXC = { SBIT, FEAC, TR9, NONE, CURVAL }  
          (EC1IT1IVT1): { <not used> }

**Default:** CURVAL

**Initial System Value:** NONE

**Addressing Rules:** None

Specifies the type of far-end multiplexer the MUX2 circuit pack is provisioned to communicate with. This command is denied if a value is entered for this parameter and the DS3 Port is not associated with a MUX circuit pack capable of remote multiplex communications.

- **SBIT** - indicates DS3 stuff bit protocol communication (such as that used for the DDM-1000).
- **FEAC** - indicates use of the Far-End Alarm and Control channel for DS1/DS3 loopback operations and reporting alarm/status.
- **TR9** - indicates use of the DS2 C-Bits for DS1 loopback operations.
- **NONE** - indicates the MUX2 is provisioned for none of the listed types.

## ED-{EC1|T1|T3|VT1}

### Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>,,,,,,;
ED-T1:[a]:b:[c]:::<d g h j k l>,,,,,,;
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>,,,,,,;
ED-VT1:[a]:b:[c]:::<g j>,,,,,,;
```

### Input Parameters (Continued)

---

- o **DS3X-Transmit (XPOL):**  
(T3): XPOL = { 1, 0, ALM1, ALM0, CURVAL }  
(EC1|T1|VT1): { <not used> }

**Default:** CURVAL  
**Initial System Value:** ALM0  
**Addressing Rules:** None

Specifies the DS3 X-Bits transmitted to the far-end from a MUX2 circuit pack. This parameter is used to indicate a near-end DS3 yellow alarm condition. A DS3 yellow alarm condition is defined as AIS, LOS, or OOF condition.

- **0** - indicates the DS3 X-bits are fixed as zeros.
- **1** - indicates the DS3 X-bits are fixed as ones (regardless of active DS3 alarm condition).
- **ALM0** - indicates the DS3 X-Bits are zeros for an active DS3 alarm condition (the X-Bits are ones for no condition).
- **ALM1** - indicates the DS3 X-Bits are ones for an active DS3 alarm condition (the X-Bits are zeros for no condition).

- p **DS3X-Receive (XBITRCV):**  
(T3): XBITRCV = { ALM0, ALM1, IGNORE, CURVAL }  
(EC1|T1|VT1): { <not used> }

**Default:** CURVAL  
**Initial System Value:** IGNORE  
**Addressing Rules:** None

Specifies how the DS3 X-Bits received from the far-end into a MUX2 circuit pack are interpreted. This parameter is used to indicate a far-end DS3 yellow alarm condition. A DS3 yellow alarm condition is defined as an AIS, LOS or OOF condition.

- **ALM0** - indicates the DS3 X-Bits are zeros for an active DS3 alarm condition (the X-Bits are ones for no condition).
- **ALM1** - indicates the DS3 X-Bits are ones for an active DS3 alarm condition (the X-Bits are zeros for no condition).
- **IGNORE** - indicates the DS3 X-Bits are ignored.

## Input Format

---

```
ED-EC1:[a]:b:[c]:::<e g i j s t>, , , , , ;  
ED-T1:[a]:b:[c]:::<d g h j k l>, , , , , ;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>, , , , , ;  
ED-VT1:[a]:b:[c]:::<g j>, , , , , ;
```

## Input Parameters (Continued)

---

q        **DS2X-Transmit (DS2XTR):**  
          (T3): DS2XTR = { 1, 0, ALM0, ALM1, CURVAL }  
          (EC1IT1IVT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** ALM0  
          **Addressing Rules:** None

Specifies the DS2 X-Bits transmitted to the far-end from a MUX2 circuit pack. This parameter is used to indicate a near-end DS2 OOF condition.

- 0 - indicates the DS2 X-Bits are fixed as zeros.
- 1 - indicates the DS2 X-Bits are fixed as ones (regardless of active DS2 OOF condition).
- ALM0 - indicates the DS2 X-Bits are zeros for an active DS2 OOF condition (the X-Bits are ones for no condition).
- ALM1 - indicates the DS2 X-Bits are ones for an active DS2 OOF condition (the X-Bits are zeros for no condition).

r        **DS2X-Receive (DS2XRCV):**  
          (T3): DS2XRCV = { ALM0, ALM1, IGNORE, CURVAL }  
          (EC1IT1IVT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** IGNORE  
          **Addressing Rules:** None

Specifies how the DS2 X-Bits received from the far-end into a MUX2 circuit pack are interpreted. This parameter is used to indicate a far-end DS2 OOF condition.

- ALM0 - indicates the DS2 X-Bits are zeros for an active DS2 OOF condition (the X-Bits are ones for no condition).
- ALM1 - indicates the DS2 X-Bits are ones for an active DS2 OOF condition (the X-Bits are zeros for no condition).
- IGNORE - indicates the DS2 X-Bits are ignored.

## ED-{EC1|T1|T3|VT1}

### Input Format

---

ED-EC1:[a]:b:[c]:::<e g i j s t>, , , , , ;  
ED-T1:[a]:b:[c]:::<d g h j k l>, , , , , ;  
ED-T3:[a]:b:[c]:::<d f g h m n o p q r>, , , , , ;  
ED-VT1:[a]:b:[c]:::<g j>, , , , , ;

### Input Parameters (Continued)

---

s        **SONET Condition Onset Soak Time (SOAKON):**  
          (EC1): SOAKON = { {1–30}, CURVAL }  
          (T1|T3|VT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** 2  
          **Addressing Rules:** None

This is a user-provisionable period of time (measured in seconds) that a SONET facility has an alarm condition active, before the SMUX circuit pack sends an indication to the unit controller (UC). Soak (onset) time is set on a per STS-1 signal basis and applies to all VT1.5 tributaries of a given STS-1 signal. Soak (onset) time is not applied to SMUX equipment alarm conditions.

t        **SONET Condition Clear Soak Time (SOAKCLR):**  
          (EC1): SOAKCLR = { {1–20}, CURVAL }  
          (T1|T3|VT1): { <not used> }

**Default:** CURVAL  
          **Initial System Value:** 10  
          **Addressing Rules:** None

This is a user-provisionable period of time (measured in seconds) that a SONET facility is no longer in the failure state, before the SMUX circuit pack sends an indication to the unit controller (UC) to clear the alarm condition(s). Soak (clear) time is set on a per STS-1 signal basis and applies to all VT1.5 tributaries of a given STS-1 signal. Soak (clear) time is not applied to SMUX equipment alarm conditions.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
u  
[ "<parsable text string>"]  
;
```

If the **ED-T1** command is attempted on a port currently being scan monitored to change its framing format or Far-end NTE parameters, the command is denied and the following free-format text line is output along with the error response:

```
/* This command is denied because the port is being scan monitored. */
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**u**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENRE	Circuit pack is not in a DS3 Interface Module
IDNV	Any of the input parameters is invalid
IDNV	BER is 3 and BER Metric is <b>PTY</b> or BER Metric is <b>CP-BITS</b> and DS3 format is other than <b>CBIT</b>
IDNV	DS3 Idle change requested and circuit pack is not <b>MUX2</b> circuit pack
IDNV	<b>QRSS</b> or <b>INIT</b> specified for input status of a DS1 in DS3
IDNV	Far-end NTE of <b>ANSI</b> specified but signal format other than <b>ESF</b> specified
IDRG	Specified circuit pack is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

## ED-{EC1IT1IT3IVT1}

### Error Code Listing (Continued)

---

<b>ERRCDE</b>	<b>Condition</b>
SAAS	Port is already provisioned for QRSS
SABT	The command could not be sent to the UC
SDNC	Any of the ports addressed are not provisioned as EC-1
SNCC	Editing <b>OMODE</b> from <b>NORM</b> to <b>TERM</b> and port is not cross-connected
SNIS	The UC is not in service
SNIS	Any of the ports addressed are not in-service
SNPV	The port or interface module is not provisioned
SNPV	Any of the ports addressed are not provisioned
SNPV	DS2 X-bit parameters cannot be edited unless TR9 is specified
SNVS	The MUX slot has PMGR circuit pack
SNVS	The circuit pack is bad
SNVS	The circuit pack is PMGR1
SNVS	DS3 Idle signal to <b>ON</b> is requested and MUX2 circuit pack is provisioned for TR9 and has an active request for far-end loopback
SNVS	Any of the ports addressed are cross-connected and the <b>EC1MAP</b> parameter is not <b>CURVAL</b>
SNVS	Circuit pack hardware ID is <b>INIT</b> or it is a PMGR1 circuit pack
SNVS	Circuit pack is present and bad or failed
SNVS	Port is currently part of a scan performance monitoring group
SNVS	Port is currently being camped-on and signal format of <b>UNFR</b> is entered
SNVS	Attempted to change protected Port to <b>NORM</b> state
SROF	One port fails in a interface module wide provisioning or SMUX bus-error due to loss of N-rate sync

## ED-DATE

### INPUT FORMAT

---

ED-DATE: [a] : : [b] : [c] , [d] , , , , , , ;

**Command Name:** Edit Date  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command changes the system date and time clock.

**Notes:** This command is not denied if the specified new value of a parameter is the same as the current value. The command is completed with no action taken.

This command must be executed every time the MC is reset (due to a power cycle) so that the time and date can be updated in the ECI circuit pack time-of-day clock (TODC). It must be executed in order to retire a minor (MN) alarm associated with a TODC failure/mismatch.

### Input Parameters

---

- a      **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- c      **Date (DATE):**  
          { {00-39,86-99}{01-12}{01-31}, CURVAL }
- Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the current date as YYMMDD, where YY is the last two digits of the year, MM is the month, and DD is the day of the month. The values of the year are interpreted by the DACS IV-2000 as follows: {00-39} map to years 2000-2039, {86-99} map to years 1986-1999.

## ED-DATE

### Input Format

---

ED-DATE: [a]::[b]:[c],[d],,,,,,,,,;

### Input Parameters (Continued)

---

d        **Time (TIME):**  
          { {00-23}{00-59}{00-59}, CURVAL }  
          **Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the current time of day as HHMMSS, where HH is the hour, MM is the minutes, and SS is the seconds.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
e
[  "<parsable text string>"]
;
```

### Output Parameters

---

**b**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	New date was entered incorrectly
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

# ED-EQPT

## INPUT FORMAT

---

ED-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n>,,,,,,,,;

**Command Name:** Edit Equipment  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command modifies the provisioning information (parameter values stored in the system database) associated with equipment.

**Notes:** All of the circuit packs specified must be provisioned, otherwise this command is denied.

This command is allowed when the MC is in the OOS-MCOND state. The system must be in the OOS-MCOND state in order to change MTC circuit packs.

All MTC circuit packs must be the same version and are changed when this command is given with a LOC parameter (b) value of **MTC**.

When an LBO value is entered with the current hardware ID set to PMGR (**AKM66**), this command is denied with the error code **SNVS**. In addition, the denial takes the form of an error response and contains the following free-format text line:

```
/* <Cannot enter LBO option with a current hardware id of PMGR (AKM66).> */
```

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Equipment Location (LOC):**  
{ UI, MTC-{0,1}, SCI-{1,2}, SSC-{0,1}, PRI-{1,2}, SEC, CLKGN-{0,1},  
SWCS-{1-32}, SWIO-{1-32}, DS3PM-{1-32}, MUX-{1-32}-{1-31},  
MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
DS1IP-{1-32}-{PA,PB}, SMUX-{1-32}-{1-15}, SMUXP-{1-32}, TX-{0,1},  
TB-{0,1}, DPLL-{0,1} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs can be specified using restrictive multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of circuit pack and its location. If **TX** is specified and **PCODE** parameter (d) is not being changed, both circuit packs (sides 0 and 1) are addressed, due to the architectural relationship between them.

### Input Format

---

ED-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n>, , , , , , , , ;

### Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Provisioned Code Name (PCODE):**  
          { AKM46, AKM47, AKM49, AKM50, AKM52, AKM55, AKM66, AKM68, AKM70,  
          AKM84, AKM85, AWP9, AWP14, AWP15, AWR2C, AWR4, AWR5, AWR6, AWR7,  
          AWR10, AWR11, AWS1, AWS1B, AWS9, AWS8, AWS5, AWS3, ERB5, ERB6, INIT,  
          CURVAL, NOVAL }

**Default:** NOVAL for DS3PM, CURVAL for all other equipment  
**Initial System Value:** INIT  
**Addressing Rules:** None

Specifies the Code Name for the circuit pack that occupies the specified location. If a circuit pack is inserted with the parameter set to `INIT`, this parameter is updated based upon information read from the circuit pack. If `INIT` is specified with the circuit pack present, this parameter is also updated in this manner. If a value is specified that is inconsistent with the circuit pack that occupies the specified location, this command is denied.

This provisionable parameter corresponds to a fixed setting in hardware (that is, the value cannot be overwritten through software). For this parameter, it is not permissible to change the provisioned value so that it differs from the hardware value (if the values differ, an alarm is generated). It is permissible, however, to assign the provisioned value the same as the hardware value, or to `INIT` (which does this automatically), which retires any alarm caused by a mismatch.

A blank (bus extender) circuit protection pack (BXA or BXB) has no on-board code name. Inserting a blank circuit pack with the Code Name set to `INIT` does not change the provisioned value.

This command is denied if the following Code Names are specified and the interface module is not equipped: AKM59B (UC2), AKM50 (SWIF2), AKM66 (PMGR1), AKM68 (MUX2), AKM70 (MUXP2).

All cross-connections, test access connections, and loopbacks must be disconnected before changing the Code Name from AKM50 (SWIF2), or AKM68 (MUX2) to AKM66 (PMGR1).

For the DS3PM circuit pack, the only valid value to be used for this parameter is `NOVAL`. Refer to the **Acronyms** appendix for an explanation of Code Names.

## ED-EQPT

### Input Format

---

ED-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n>,,,,,,,,,;

### Input Parameters (Continued)

---

e **Line Build-Out (LBO):**

LBO = { INIT, OUT, IN, CURVAL, NOVAL }

**Default:** CURVAL for MUX and SMUX, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Line Build-Out (LBO) setting for the circuit pack that occupies the specified location. If **INIT** is specified with the circuit pack present, this parameter is updated based upon information read from the circuit pack. If **INIT** is specified with no circuit pack present or while the associated UC is not in service, the value is held at **INIT**, and eventually updated when the UC is in service and the circuit pack is inserted.

This provisionable parameter corresponds to a fixed setting in hardware (that is, the value cannot be overwritten through software). For this parameter, it is not permissible to change the provisioned value so that it differs from the hardware value (if the values differ, an alarm is generated). It is permissible, however, to assign the provisioned value the same as the hardware value, or to **INIT** (which does this automatically), which retires any alarm caused by a mismatch.

If the circuit pack is present and a value is specified other than the one on the circuit pack, this command is denied. If a value is specified that is inconsistent with the circuit pack that occupies the specified location (for instance, if **IN** is given for a DS1IF circuit pack), this command is denied.

LBO is used for MUX and SMUX circuit packs only.

NOVAL is not valid for MUX and SMUX circuit packs.

Refer to Chapter 5 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) for additional information on LBO settings.

- **IN** - indicates that LBO is being used.
- **OUT** - indicates that LBO is not being used.

## Input Format

---

ED-EQPT: [a]:b:[c]::[d]:<e f g h i j k l m n>,,,,,,,,;

## Input Parameters (Continued)

---

f        **Equalizer (EQL):**

EQL = { INIT, 20, 40, 60, 80, 100, CURVAL, NOVAL }

**Default:** CURVAL for DS1IF, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Equalizer (EQL) setting for the circuit pack that occupies this location.

EQL is only used for DS1IF circuit packs. The EQL value can be provisioned by software or by DIP switches on the DS1IF circuit pack. Generally, software overrides the value on the DS1IF circuit pack if there is a conflict. However, some DIP switch settings are invalid. Of the eight possible DIP switch settings, three are invalid. If the EQL switches are set to any of the invalid combinations, the DS1IF circuit pack is treated as a *bad* circuit pack by the system, regardless of whether the DS1IF circuit pack was provisioned by software or DIP switches. The numeric value specifies the EQL setting in terms of the maximum percentage of the rated cable length that is supported by the setting. Refer to Chapter 5 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) for additional information on EQL settings and maximum cable lengths supported by the different values of the EQL setting.

If **INIT** is specified with a circuit pack present, this parameter is updated based upon information read from the circuit pack. If **INIT** is specified with no circuit pack present or while the associated UC is not in service, the value is held at **INIT**, and eventually updated when the UC is in service and the circuit pack is inserted.

If the circuit pack is present and a value is specified other than the one on the circuit pack, the value specified overrides the value on the circuit pack. If a value is specified that is inconsistent with the circuit pack that occupies the specified location, this command is denied.

**NOVAL** is not valid for DS1IF circuit packs.

g        **Multipoint Address (MULPTADD):**

MULPTADD = { 0-63, INIT, NOVAL, CURVAL }

**Default:** CURVAL for DS3PM, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the multipoint address used for a DS3PM circuit pack. The value **INIT** resets the address to the initial value of (Unit Number -1). This parameter is only allowed if the **LOC** parameter (b) is **DS3PM**, and is not allowed in a range command (that is, only one DS3PM circuit pack can be specified). If the **LOC** parameter is not **DS3PM**, the value of this parameter must be **NOVAL**.

## ED-EQPT

### Input Format

---

ED-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n>,,,,,,,,;

### Input Parameters (Continued)

---

**h Function (FNCT):**

FNCT = { PM, PM-SCAN, CURVAL, NOVAL }

**Default:** CURVAL if the PCODE parameter (d) is AKM66 or CURVAL, NOVAL for all other code names

**Initial System Value:** None

**Addressing Rules:** None

Specifies the function of the PMGR1 circuit pack. This parameter is only allowed if the PCODE parameter (d) is AKM66 or CURVAL. If the PCODE parameter is not AKM66 or CURVAL, the value of this parameter must be NOVAL.

- **PM** - specifies Camp-On Performance Monitoring functions are performed.
- **PM-SCAN** - specifies Scan DS1 Performance Monitoring functions are performed.

**i Primary Timing Reference (SYNCPRI):**

SYNCPRI = { 1, 2, CURVAL, NOVAL }

**Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies which TX Port the Primary Synchronization Reference is connected to. Specifying a given TX Port addresses the same port on both TX circuit packs due to the architectural relationship. If the LOC parameter (b) is not TX, this parameter must be set to NOVAL. If a value of 1 is entered for this parameter, the SYNCSEC parameter (j) must be set to 2; if a value of 2 is entered for this parameter, the SYNCSEC parameter (j) must be set to 1. Otherwise, this command is denied.

**j Secondary Timing Reference (SYNCSEC):**

SYNCSEC = { 1, 2, CURVAL, NOVAL }

**Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies which TX Port the Secondary Synchronization Reference is connected to. Specifying a given TX Port addresses the same port on both TX circuit packs due to the architectural relationship. If the LOC parameter (b) is not TX, this parameter must be set to NOVAL. If a value of 1 is entered for this parameter, the SYNCPRI parameter (i) must be set to 2; if a value of 2 is entered for this parameter, the SYNCPRI parameter (i) must be set to 1. Otherwise, this command is denied.

## Input Format

---

ED-EQPT: [a]:b:[c]::[d]:<e f g h i j k l m n>,,,,,,,,;

## Input Parameters (Continued)

---

- k**      **TLI Port 1 Framing Format (TLIP1FF):**  
          TLIP1FF = { ESF, SF, CURVAL, NOVAL }  
  
                  **Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the DS1 Framing Format for the specified Timing Link Interface Port on the TX circuit pack. If the LOC parameter (b) is not TX- { 0 , 1 }, this parameter must be NOVAL.
- l**      **TLI Port 2 Framing Format (TLIP2FF):**  
          TLIP2FF = { ESF, SF, CURVAL, NOVAL }  
  
                  **Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the DS1 Framing Format for the specified Timing Link Interface Port on the TX circuit pack. If the LOC parameter (b) is not TX- { 0 , 1 }, this parameter must be NOVAL.
- m**      **TLI Port 1 Line Code (TLIP1LC):**  
          TLIP1LC = { AMI, B8ZS, CURVAL, NOVAL }  
  
                  **Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the DS1 Code Type for the specified Timing Link Interface Port on the TX circuit pack. If the LOC parameter (b) is not TX- { 0 , 1 }, this parameter must be NOVAL.
- n**      **TLI Port 2 Line Code (TLIP2LC):**  
          TLIP2LC = { AMI, B8ZS, CURVAL, NOVAL }  
  
                  **Default:** CURVAL for TX-{0,1}, NOVAL for all other equipment  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies the DS1 Code Type for the specified Timing Link Interface Port on the TX circuit pack. If the LOC parameter (b) is not TX- { 0 , 1 }, this parameter must be set to NOVAL.

## ED-EQPT

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   o
[  "<parsable text string>" ]
;
```

#### Output Parameters

---

- c     **Correlation Tag (CTAG):**  
      { <1 -10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

- o     **Error Code (ERRCDE):**  
      { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENEQ	Circuit pack not equipped
ENEQ	Unit Type does not match Equipment Location
ENRE	Circuit pack not recognized
ENRE	Incorrect LBO entered
IDNV	Input data not valid
IDRG	Illegal range for specified circuit pack
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAAS	Slot is already assigned
SABT	Execution aborted due to error in implementation
SACC	Circuit pack is already cross-connected
SNAS	Specified circuit pack is not assigned
SNIS	Circuit pack is not in-service
SNPV	Circuit pack is not provisioned
SNVS	Circuit pack is not in a valid state

## ED-NE

### INPUT FORMAT

---

ED-NE: [a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

**Command Name:** Edit Network Element  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** PM5,S3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command modifies the provisioning information (parameter values stored in the system database) associated with the DACS IV-2000 network element.

**Notes:** This command is not denied because the specified new value of a parameter is the same as the current value. The command is completed with no action taken.

PSET#1 indicates CB149 parameters and PSET#2 indicates TR820 parameters.

A warning message is generated if the UC cannot communicate with the MUX2 circuit pack.

This command is not denied if the CLEI, CLLI, FIC, or Equipment Type is modified. The command updates the circuit packs it can; the other circuit packs are updated when they can be updated. If an update cannot be made to a circuit pack because the UC is not in-service or because the circuit pack is bad, a warning message is displayed with the normal completion response. If an update cannot be made to a MUX2 circuit pack that is being protected, but the protection circuit pack can be updated, the warning message is not displayed. If an effected slot is in the PNDG state, the warning message is not displayed.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1 -18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b        **Correlation Tag (CTAG):**  
          { <1 -10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## ED-NE

### Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

### Input Parameters (Continued)

---

**c**      **New Target ID (NEWTID):**

NEWTID = { <1 -18 TID LEGAL CHARACTERS>, CURVAL }

**Default:** CURVAL

**Initial System Value:** null

**Addressing Rules:** None

Specifies the NEW Target ID of the DACS IV-2000.

**d**      **Alarm Delay (ALMDLY):**

ALMDLY = { {1-30}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 10

**Addressing Rules:** None

Specifies the Alarm Delay (in seconds) for software detected alarm conditions associated with all equipment and non-SONET facilities terminated on a DS1IF or MUX circuit pack. The alarm delay duration effects audible and visible office alarm outputs, major (MJ) and minor (MN) LED indicators on the status panel, autonomous messages, and AS&C alarm points. The alarm delay does **not** effect LEDs on circuit packs with existing alarms (until those alarms clear), does **not** affect output in response to manually input commands, and does **not** affect AS&C status points.

**e**      **Clear Delay (CLRDLY):**

CLRDLY = { {1-20}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 10

**Addressing Rules:** None

Specifies the delay (in seconds) that must be satisfied before non-SONET facility alarm conditions are cleared. This parameter does not affect equipment alarms.

**f**      **Autolock Number of Switches (NUMSW):**

NUMSW = { {1-10}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 4

**Addressing Rules:** None

Specifies the number of *auto-restorations* (transition from the protection state to the unprotection state) that can occur in a given Autolock Switching Interval (see the **SWINTVL** parameter [g]) before an autolock occurs on a protectable circuit pack.

## Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

## Input Parameters (Continued)

---

- g Autolock Switching Interval (SWINTVL):**  
SWINTVL = { {1-60}, CURVAL }  
**Default:** CURVAL  
**Initial System Value:** 10  
**Addressing Rules:** None

Specifies the interval in minutes in which the value given by Autolock Number of Switches (see the **NUMSW** parameter [f]) of *auto-restorations* (transition from the protection state to the unprotection state) can take place before autolock occurs on a circuit pack.

- h Autolock Release Time (RLSTM):**  
RLSTM = { {1-24}, CURVAL }  
**Default:** CURVAL  
**Initial System Value:** 24  
**Addressing Rules:** None

Specifies the duration (in hours) between times when the system automatically releases all autolocks.

- i Automatic Secondary Disk Drive Backup (BKUP):**  
BKUP = { ON, OFF, CURVAL }  
**Default:** CURVAL  
**Initial System Value:** OFF  
**Addressing Rules:** None

Specifies whether automatic PRI to SEC database backup is enabled. When SEC backup is enabled, only the database information is copied from the PRI to the SEC.

- j Time of Day (TMDAY):**  
TMDAY = { {0000-2359}, CURVAL }  
**Default:** CURVAL  
**Initial System Value:** 0130  
**Addressing Rules:** None

Specifies the time of day the automatic PRI to SEC database backup is to occur. The time of day is represented by use of a 24-hour clock that runs from 00:00 to 23:59. The colon is removed when the time is entered; the number representing the time must be entered as a four-digit number.

## ED-NE

### Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

### Input Parameters (Continued)

---

**k Day of Week (DAYWK):**

DAYWK = { Su, Mo, Tu, We, Th, Fr, Sa, CURVAL }

**Default:** CURVAL

**Initial System Value:** Su

**Addressing Rules:** Multiple days can be specified.

Specifies the day of the week the automatic PRI to SEC database backup is to occur. The following abbreviations correspond to the days of the week: **Su**-Sunday, **Mo**-Monday, **Tu**-Tuesday, **We**-Wednesday, **Th**-Thursday, **Fr**-Friday, and **Sa**-Saturday. The abbreviations are given in rank order. A range of days can be specified (using double ampersands [&&]) if the beginning day comes before the ending day as given by the rank order.

**l Common Language Equipment ID Code (CLEI):**

CLEI = { #<1 -10 TRANSID LEGAL CHARACTERS>, CURVAL, NOVAL }

**Default:** CURVAL

**Initial System Value:** DACSIV

**Addressing Rules:** None

Specifies the network element level Common Language Equipment Identification (CLEI) code.

**m Common Language Location ID Code (CLLI):**

CLLI = { #<1 -11 TRANSID LEGAL CHARACTERS>, CURVAL, NOVAL }

**Default:** CURVAL

**Initial System Value:** NOVAL

**Addressing Rules:** None

Specifies the network element level Common Language Location Identification (CLLI).

**n Frame ID Code (FIC):**

FIC = { #<1 -10 TRANSID LEGAL CHARACTERS>, CURVAL, NOVAL }

**Default:** CURVAL

**Initial System Value:** NOVAL

**Addressing Rules:** None

Specifies the network element level Frame Identification Code (FIC).

## Input Format

---

ED-NE: [a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

## Input Parameters (Continued)

---

- o       **Equipment Type (EQTYPE):**  
          EQTYPE = { CPE, NET, CURVAL }

**Default:** CURVAL

**Initial System Value:** NET

**Addressing Rules:** None

Specifies the type of equipment. This parameter is used to set the value of the carrier/response (CR) flag in the message that is sent in the data channel of the C-bit parity signal.

- **CPE** - is Customer Premise Equipment (sets value to 0).
- **NET** - is Network Equipment (sets value to 1).

- p       **Failure Type (FAILTYPE):**  
          FAILTYPE = { FAC, EQPT, BOTH, NONE, CURVAL }

**Default:** CURVAL

**Initial System Value:** NONE

**Addressing Rules:** None

Specifies the method of counting failures. The total number of EC-1/VT1.5/DS1 failures is used in conjunction with the **FAILTHRES** parameter (q) to activate/deactivate the critical alarm. If the total count becomes greater than or equal to the **FAILTHRES** value, a critical alarm is activated.

- **FAC** - indicates that the DACS IV-2000 counts failures based on facility failures only.
- **EQPT** - indicates the DACS IV-2000 counts failures based on equipment failures only.
- **BOTH** - indicates the DACS IV-2000 counts failures based on both equipment and facility failures.

- q       **Failure Threshold (FAILTHRES):** EC-1  
          FAILTHRES = { {0-500}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 6

**Addressing Rules:** None

Specifies the number of EC-1/VT1.5/DS1 failures that constitute a critical alarm. If the value entered is 0, no critical alarm is ever triggered. If the value entered is greater than 0, whenever the total number of EC-1/VT1.5/DS1 failures becomes greater than or equal to the specified value, a critical alarm is activated.

## ED-NE

### Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

### Input Parameters (Continued)

---

**r**      **Number of Cyclic Redundancy Code 6 Errors (CRCERR):**

CRCERR = { {1-19200}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 92

**Addressing Rules:** None

Specifies number of CRC-6 errors in a minute to count as a Degraded Minute (DM).

**s**      **DS1 Short Accumulation Period (SHACCUM):**

SHACCUM = { 15-MIN, 1-HR, CURVAL }

**Default:** CURVAL

**Initial System Value:** 15-MIN

**Addressing Rules:** None

Specifies the Short Accumulation Period of performance monitoring parameters. Daily accumulation is always performed. A system reset (that is, **INIT-SYS:::9**, or pushing the RESET button) must be performed for a change in this parameter to take effect. Unless a reset is performed, the old parameter value is in effect and is still displayed by the **RTRV-NE** command. This parameter is a DS1 Performance Monitoring parameter.

**t**      **DS3 Performance Monitoring Type (PMTYPE):**

PMTYPE = { PSET#1, PSET#2, NONE, CURVAL }

**Default:** CURVAL

**Initial System Value:** NONE

**Addressing Rules:** None

Specifies the type of performance monitoring parameters that the frame monitors. A system reset (that is, **INIT-SYS:::9**, or pushing the RESET button) must be performed for a change in this parameter to take effect. Unless a reset is performed, the old parameter value is in effect and is still displayed by the **RTRV-NE** command.

**u**      **DS3 Accumulation Period (ACCUM):**

ACCUM = { 15-MIN, 1-HR, CURVAL }

**Default:** 15-MIN, if PSET#1 or PSET#2 is specified for the **PMTYPE** parameter (t); CURVAL, if CURVAL is specified for **PMTYPE**

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Accumulation Period of performance monitoring parameters. Daily accumulation is always performed. If **NONE** is specified for the **PMTYPE** parameter (t), this parameter is ignored. A system reset (that is, **INIT-SYS:::9**, or pushing the RESET button) must be performed for a change in this parameter to take effect. Unless a reset is performed, the old parameter value is in effect and is still displayed by the **RTRV-NE** command. If **PSET#1** is specified for **PMTYPE** parameter (t), the only valid value for this parameter is **15-MIN**.

## Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

## Input Parameters (Continued)

---

v       **Database Change Feature (DBCHG):**  
          DBCHG = { OFF, ON, CURVAL }

**Default:** CURVAL  
          **Initial System Value:** ON  
          **Addressing Rules:** None

Specifies whether the database change feature is turned on or off.

- **OFF** - indicates the feature is turned off. This means that no REPT DBCHG messages are generated which report database changes due to manual command input.
- **ON** - indicates the feature is turned on. This means that REPT DBCHG messages are generated which report database changes due to manual command input; they are sent to the links/users provisioned to receive these messages.

w       **Manual Protection ID (MANPROT):**  
          MANPROT = { CKTLED-ON, CKTLED-OFF, CURVAL }

**Default:** CURVAL  
          **Initial System Value:** CKTLED-ON  
          **Addressing Rules:** None

Specifies whether the system's protection identification feature is enabled.

- **CKTLED-ON** - indicates that the alarm LED for SWIF, SWCS, SWIO, SMUX, and MUX circuit packs illuminate as long as that circuit pack is in a protected condition, whether due to manual or autonomous action. In the case of a SWIO circuit pack, its associated, protected, CLKDR circuit pack also has its alarm LED illuminated.
- **CKTLED-OFF** - disables this feature.

x       **Link Number (LINKNUM):**  
          LINKNUM = { ON, OFF, CURVAL }

**Default:** CURVAL  
          **Initial System Value:** OFF  
          **Addressing Rules:** None

Specifies whether the message headers contain the CILINK number associated with the message.

- **ON** - indicates that the link number appears in the message header.
- **OFF** - indicates that the link number does not appear in the message header.

## ED-NE

### Input Format

---

ED-NE:[a]::[b]::[c]:<d e f g h i j k l m n o p q r s t u v w x y z aa>,,,,,,,,;

### Input Parameters (Continued)

---

y        **Backup Alarm Feature (BKUPALM):**  
          BKUPALM= { ON, OFF, CURVAL }

**Default:** CURVAL

**Initial System Value:** OFF

**Addressing Rules:** None

Specifies whether the feature to alarm for a failure of a backup to secondary memory is activated.

- **OFF** - indicates that no alarm is raised for a failure of a backup to secondary memory.
- **ON** - indicates that an alarm is raised for a failure of a backup to secondary memory.

z        **Automatic Carriage Return (AUTORET):**  
          AUTORET = { ON, OFF, CURVAL }

**Default:** CURVAL

**Initial System Value:** ON

**Addressing Rules:** None

Specifies whether an automatic carriage return is sent every 15 minutes.

- **ON** - indicates that the automatic carriage return is sent every 15 minutes.
- **OFF** - indicates that the automatic carriage return is not sent every 15 minutes.

aa       **Equipment Power (EQPWR):**  
          EQPWR= { SPLX, DPLX, CURVAL }

**Default:** CURVAL

**Initial System Value:** SPLX

**Addressing Rules:** None

Specifies the way the system is powered by the office battery plan. That is, the system has or does not have separate red and blue power feeds.

- **SPLX** (simplex power feeders) - indicates the system is powered by a single battery distribution feeder board (BDFB). That is, the system does not have separate red and blue power feeds.
- **DPLX** (duplex power feeders) - indicates the system is powered by two BDFBs, (the BDFBs can be powered by one or two battery plants). That is, the system has separate red and blue power feeds.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
[  /* WARNING: SOME PACKS HAVE NOT BEEN UPDATED WITH NEW TRANSID VALUES YET */
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
   ab
[  "<parsable text string>"
;
```

### Output Parameters

---

**b**        **Correlation Tag (CTAG):**  
          { <1 -10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**ab**       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENMD	Automatic SEC Backup parameter is turned <i>on</i> but the SEC drive is not restored or there is not a SEC in the SEC drive
IDNV	Critical alarm already exists
IITA	Invalid Target Identifier
IISP	Syntax or punctuation error in entering input command
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	All resources are busy
SNVS	SWCS, SWIO, MUX, SWIF, or DS1IF circuit pack is protected and an attempt is made to modify the <b>MANPROT</b> parameter (x)

# ED-PORT

## INPUT FORMAT

---

ED-PORT: [a]:b:[c]::<d e>,,,,,;

**Command Name:** Edit Port  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command modifies the STS-1 or VT1.5 signal format information associated with the port(s) on a synchronous interface module.

**Notes:** When the signal type is changed from EC-1 to VT1.5, the DACS IV-2000 saves the EC-1 signal type port parameter settings (provisioning and performance monitoring information for that port) for future use. Similarly, when the signal type is changed from VT1.5 to EC-1, the DACS IV-2000 saves the VT1.5 signal type port parameter settings (provisioning and performance monitoring information for that port) for future use. Also, if the port was VT1.5(DS1) (that is, VT1.5 with the **VTMAP** parameter (e) set to **ASYM**), the DS1 parameter settings are also saved for future use.

When the VT1.5 Format or EC-1 Format is set for a port with this command, all of the associated provisioning and performance monitoring information (SONET Condition Onset Soak Time, BER Threshold, Performance Monitoring parameter thresholds, etc.) are restored from the last time the port was configured with the same signal type.

If both the **EC1MAP** (d) and **VTMAP** (e) parameters are omitted in the input, this command is denied with the error code **IDNV**.

If both the **EC1MAP** (d) and **VTMAP** (e) parameters are specified in the input, this command is denied with the error code **IDNV**.

If only the **EC1MAP** parameter (d) is specified, and the **PORT** parameter (b) is:

- **PORT = x-y** — set x-y as clear channel with specified **EC1MAP**
- **PORT = UNIT-x** — set all EC-1 ports in **UNIT-x** as clear channel with specified **EC1MAP**
- **PORT = x-y-z** — denied with the error code **IDNV**
- **PORT = VT1GRP-x-y** — denied with the error code **IDNV**

If only **VTMAP** parameter (e) is specified, and the **PORT** parameter (b) is:

- **PORT = x-y** — denied with the error code **IDNV**
- **PORT = UNIT-x** — set all VT1.5 ports in **UNIT-x** as VT1.5 ports with specified **VTMAP**
- **PORT = x-y-z** — set x-y-z as VT1.5 port with specified **VTMAP**
- **PORT = VT1GRP-x-y** — set all VT1.5 ports in **VT1GRP-x-y** as VT1.5 ports with specified **VTMAP**

If the provisioned value of the EC-1 signal format (**EC1MAP**) does not match the received EC-1 format (**RCVECMAP** in the **RTRV-PORT** command), a Signal Label Match Failure (SLMF) alarm is generated. The value **UNSPEC** is a wild card; it matches any other value.

If a VT1.5, EC-1, or DS1 port (on a SONET interface) is in the loopback-inhibited state, the **ED-PORT** command to change from one port type to another is denied with the error code **SAIN**. The port must be manually set to the allowed-loopback state.

### Input Parameters

- a      **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b      **Port (PORT):**  
          { {1-32}-{1-15}, UNIT-{1-32}, {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15} }
- Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. All of the ports specified must be on provisioned circuit packs, otherwise this command is denied.

Specifies one or more port(s) on an SMUX circuit pack or all of the ports associated with the specified synchronous interface modules. If a range of ports is specified, the command is executed port by port. If a port is encountered for which the command cannot be completed, the command execution is stopped.

- c      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## ED-PORT

### Input Format

---

ED-PORT: [a]:b:[c]::<d e>,,,,,,,,;

### Input Parameters (Continued)

---

d      **EC-1 Format (EC1MAP):**  
         EC1MAP = { UNSPEC, ASYN, SYNC, VTFLOAT, VTLOCK, NOVAL }

**Default:** NOVAL if the **PORT** parameter (b) is UNIT or a VT1.5 Port

**Initial System Value:** VTFLOAT

**Addressing Rules:** None

Specifies the line format of an EC-1 Port. Either this parameter or the **VTMAP** parameter (e) must be specified, but not both.

If this parameter is specified, the port(s) are provisioned as EC-1 Port(s) with the particular EC-1 Format specified provided that all of the tributaries are not cross-connected. In this case, a 3-level port addressing (for example, 15-2-2) or VT1GRP-level port addressing (for example, VT1GRP-15-2) is not allowed. In addition, the Active Signal Type parameters (see the **RTRV-PORT** command) for the EC-1 port and all of its tributaries are set to EC1.

- **UNSPEC** - indicates an equipped synchronous payload envelope (SPE) of unspecified format.
- **ASYN** - indicates a DS3 mapped to STS-1 asynchronous.
- **SYNC** - indicates STS-1 synchronous mapping for DS3 Byte Observable Synt-ran.
- **VTFLOAT** - indicates floating virtual tributary (VT) mode.
- **VTLOCK** - indicates locked VT mode (cannot transport asynchronously mapped SPE).

## Input Format

---

ED-PORT: [a]:b:[c]::<d e>,,,,,,,,;

## Input Parameters (Continued)

---

e        **VT1.5 Format (VTMAP):**  
          VTMAP = { UNSPEC, ASYN, BIT, BYTE, NOVAL }

**Default:** NOVAL if the **EC1MAP** parameter (d) is not NOVAL

**Initial System Value:** ASYN

**Addressing Rules:** None

Specifies the VT1.5 type within an incoming STS-1 signal. Either this parameter or the **EC1MAP** parameter (d) must be specified, but not both.

If this parameter is specified, the port(s) are provisioned as VT1.5 port(s) with the particular VT1.5 Format specified. If this parameter is **ASYN**, the Active Signal Type parameter value (see the **RTRV-PORT** command) is set to **T1**. If this parameter is not **ASYN**, the Active Signal Type parameter is set to **VT1**. The Active Signal Type parameter for the parent EC-1 Port is set to **VT1/T1** and the EC-1 Format of the parent EC-1 port is changed to **VTFLOAT**. In addition, the other VT1.5 Ports on the same SMUX circuit pack that are **not** specified in the range of this command and that are not cross-connected are set to the initial system value (**UNSPEC**) and the Active Signal Type parameter is set to **VT1**.

- **UNSPEC** - indicates equipped of unspecified format.
- **ASYN** - indicates asynchronous DS1 mapping.
- **BIT** - indicates Bit Synchronous DS1 mapping.
- **BYTE** - indicates Byte Synchronous DS1 mapping.

## ED-PORT

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
f
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

**c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**f Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENRE	Circuit pack is not in a STS1 Interface Module
IDNV	Any of the input parameters is invalid
IDRG	Specified port is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	The command can not be sent to the UC
SAIN	Port is in loopback-inhibited state
SDNC	Any of the ports addressed are not provisioned as EC-1/VT1.5 facilities
SNIS	The UC is not in service
SNIS	Any of the ports addressed are not in-service

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SNPV	The port or interface module is not provisioned
SNPV	Any of the ports addressed are not provisioned
SNVS	The circuit pack is bad or failed
SNVS	Any of the ports addressed are cross-connected
SROF	One port fails in the specified range in the input LOC parameter (b)
SROF	SUMX bus-error due to loss of N-rate sync

# ED-PRMTR-LINK

## INPUT FORMAT

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

**Note:** The above single-line message is presented as two lines for ease of reading.

**Command Name:** Edit Parameter Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

## Purpose

---

This command modifies the provisioning information associated with administrative interface links (CILINKs).

The CILINK(s) must be in the Out of Service (OOS-MTCE) state for this command to execute or the command is denied.

**Notes:** CILINKs 1-4 and 2-4 are initially configured as TABS links, but they can be reprovisioned as TABS, TBOS, or Snider.

When CILINK 1-4 or 2-4 is provisioned as Snider, no `BOOT IN PROGRESS` messages are output on that CILINK.

XON/XOFF (that is, DC3/DC1) are interpreted as flow control characters only if the DACS IV-2000 is transmitting characters at the time the characters are received.

## Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple addressing is not permitted.
- Specifies the administrative or data link.

## Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

## Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Protocol Type (PTYPE):**  
          { SNIDER, TABS, TBOS, X.25, CURVAL }

**Default:** None for CILINKs 1-4 and 2-4; CURVAL for all other CILINKs  
**Initial System Value:** SNIDER for CILINKs 1-1, 1-2, 1-3, 2-1, 2-2, 2-3, TABS for CILINKs 1-4 and 2-4, and X.25 for CILINKs 1-5, 1-6, 2-5 and 2-6.  
**Addressing Rules:** None

Specifies the type of protocol supported on the specified CILINK. If the value given is not supported for the specified CILINK, this command is denied. CURVAL is not allowed for CILINKs 1-4 and 2-4.

- e        **Baud Rate (BAUD):**  
          { 300, 1200, 2400, 4800, 9600, CURVAL, NOVAL }

**Default:** CURVAL  
**Initial System Value:** CILINKs 1-1, 1-3, 2-1, and 2-3 are set to 9600 baud, CILINKs 1-2 and 2-2 are set to 2400 baud, CILINKs 1-4 and 2-4 are set to 2400 baud (TABS/TBOS) or 9600 baud (Snider), and CILINKs 1-5, 1-6, 2-5, and 2-6 are set to 9600 baud.  
**Addressing Rules:** None

Specifies the transmission rate for the specified CILINK.

The baud rate can only be changed by you for Snider links. The only value allowed for TABS and TBOS links is 2400 (or CURVAL). There is no user-specified baud rate for X.25 links. The baud rate for CILINKs 1-5, 1-6, 2-5, and 2-6 is based upon external timing. Therefore, this parameter for these CILINKs only has an effect if an external loop-back jumper is installed. If you try to change the baud rate for X.25 links, this command is denied. The value NOVAL is used only on CILINKs 1-5, 1-6, 2-5 and 2-6.

When the PTYPE parameter (d) is changed from TABS or TBOS to SNIDER for CILINK 1-4 or 2-4, the default bad rate is 9600. When the PTYPE parameter (d) is changed from SNIDER to TABS or TBOS for CILINK 1-4 or 2-4, the default baud rate is 2400.

## ED-PRMTR-LINK

### Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

### Input Parameters (Continued)

---

f        **Message Screening (SCREEN):**  
         { INPUT, AUTO, ALL, DBAUTO, DBALL, CURVAL }

**Default:** CURVAL

**Initial System Value:** ALL

**Addressing Rules:** None

Specifies what output messages are displayed by the specified link if no user is logged on to the link or virtual circuit.

This parameter is not used for TABS or TBOS links. Any attempt to assign a value to TABS or TBOS links results in this command being denied.

- **INPUT** - specifies that the link receives responses to its own commands.
- **AUTO** - specifies that the link receives responses to its own commands and autonomous messages except REPT DBCHG messages due to manual command input.
- **ALL** - specifies that the link receives responses to its own commands, autonomous messages except REPT DBCHG messages due to manual command input, and responses to commands from other links.
- **DBAUTO** - specifies that the link receives responses to its own commands and autonomous messages including REPT DBCHG messages due to manual command input.
- **DBALL** - specifies that the link receives responses to its own commands, autonomous messages including REPT DBCHG messages due to manual command input, and responses to commands from other links.

## Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

## Input Parameters (Continued)

---

- g        **Dialog Mode (DMODE):**  
          { MENU, COMMAND, CURVAL }  
**Telemetry Set (TLMTRY):**  
          { SUMMARY, DETAILED, EXTENDED, CURVAL }

**Default:** CURVAL

**Initial System Value:** MENU for Snider links, COMMAND for X.25 links, and EXTENDED for the TABS link

**Addressing Rules:** None

This parameter depends on how the CILINK is provisioned (that is, what value was selected for the **PTYPE** parameter [d]). For CILINKs with Snider or X.25 protocol, this parameter specifies the dialog mode for the link.

- **MENU** - supports full dialog/prompt procedure, and the input command is echoed in the output message.
- **COMMAND** - enters the dialog/prompt procedure when a question mark, and only the CTAG from the input command is echoed in the output message.

For CILINKs with TABS protocol, this parameter specifies the telemetry set to be used. Detailed descriptions of the different telemetry sets are contained in the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

- h        **Poll Timing (POLL):**  
          { {10-60}, CURVAL, NOVAL }

**Default:** CURVAL for TABS/TBOS link, NOVAL for all other links

**Initial System Value:** 20 for TABS link, 2 for TBOS link, None for all other links

**Addressing Rules:** None

Specifies how often (in seconds) the system expects a poll request from the telemetry remote. This parameter is only settable for a TABS link. For a TBOS link the value for this parameter is fixed at 2 seconds. For Snider and X.25 links, this parameter must be **NOVAL**. When CILINK 1-4 or 2-4 is provisioned as a Snider link, this parameter must be **NOVAL**.

## ED-PRMTR-LINK

### Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

### Input Parameters (Continued)

---

i        **Flow Control (FLOW):**  
         { DC3, ACK, CURVAL }

**Default:** CURVAL

**Initial System Value:** DC3

**Addressing Rules:** None

Specifies the method of flow control for output messages. These protocols only apply to Snider links. If the **PTYPE** parameter (d) is not **SNIDER**, this parameter must be **CURVAL**.

- **DC3** - suspends sending output characters when a DC3 (cntrl-S) character is received. Sending of output characters resumes at the point of suspension when a DC1 (cntrl-Q) or <break> is received.

The use of DC3 (cntrl-S) stops the DACS IV-2000 output on the administrative link it was received over for 30 seconds. After 30 seconds of stopped output, the transmission of output autonomously starts and another DC3 (cntrl-S) can not be recognized until the pending output has been completely transmitted.

- **ACK** - sends an ENQ (cntrl-E) character before each message or message segment and waits for an ACK (cntrl-F) character before sending that output message.

j        **Link Window Size K (K):**  
         { {2-7}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 7

**Addressing Rules:** None

Specifies the maximum number of outstanding I frames. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

k        **Counter N2 (N2):**  
         { {2-15}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 7

**Addressing Rules:** None

Specifies the maximum number of attempts to obtain an appropriate response to a transmitted X.25 frame (link layer), including the initial transmission following the expiration of Timer T1. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

## Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

## Input Parameters (Continued)

---

l       **Timer T1 (T1):**  
          { {2-20}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 3  
**Addressing Rules:** None

Specifies the link layer acknowledgment timer. If Timer T1 (seconds) expires, the DACS IV-2000 initiates the retransmission of a link level frame. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

m       **Timer T3 (T3):**  
          { {4-120}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 26  
**Addressing Rules:** None

Specifies the disconnect (or idle channel) timer. It defines the time the DCE waits to be assured that the link is in a nonactive state. If Timer T3 (seconds) expires, the channel is assumed idle and the link is removed. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

n       **Network Window Size W (W):**  
          { {1-7}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 2  
**Addressing Rules:** None

Specifies the maximum number of unacknowledged packets. The same window size is used for both ends of a call. This parameter can be negotiated at call setup. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

o       **Packet Size P (P):**  
          { 128, 256, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 128  
**Addressing Rules:** None

Specifies the network level packet size in octets. This parameter can be negotiated at call setup. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

## ED-PRMTR-LINK

### Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

### Input Parameters (Continued)

---

p       **Timer T20 (T20):**  
          { {30–180}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 180  
**Addressing Rules:** None

Specifies the Restart Request response timer. If Timer 20 (seconds) expires, the Restart Request packet is retransmitted and Timer T20 is restarted up to a maximum of Counter R20 times. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

q       **Timer T22 (T22):**  
          { {30–180}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 180  
**Addressing Rules:** None

Specifies the Reset Request response timer. If Timer T22 (seconds) expires, the Reset Request packet is retransmitted and Timer T22 is restarted up to a maximum of Counter R22 times. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

r       **Timer T23 (T23):**  
          { {30–180}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 180  
**Addressing Rules:** None

Specifies the disconnect (or idle channel) timer (packet layer). If Timer T23 (seconds) expires, the Clear Request packet is retransmitted and Timer T23 is restarted up to a maximum of Counter R23 times. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

s       **Timer T25 (T25):**  
          { {30–200}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 200  
**Addressing Rules:** None

Specifies the Data Packet Acknowledgment timer. If Timer T25 (seconds) expires, all unacknowledged Data Packets are retransmitted and Timer T25 is restarted up to a maximum of Counter R25 times. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

## Input Format

---

ED-PRMTR-LINK: [a] :b: [c] : [d], [e], [f], [g], [h], [i] : [j], [k], [l], [m], [n], [o], [p],  
[q], [r], [s], [t], [u], [v], [w], [x], [y] ;

## Input Parameters (Continued)

---

t       **Timer T26 (T26):**  
          { {30–180}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 180  
**Addressing Rules:** None

Specifies an Interrupt Response timer. If Timer T26 (seconds) expires, the Reset Request packet is transmitted. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

u       **Counter R20 (R20):**  
          { {1–10}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 1  
**Addressing Rules:** None

Specifies the Restart Request retransmission counter. If Counter R20 expires, the link is removed from service. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

v       **Counter R22 (R22):**  
          { {1–10}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 1  
**Addressing Rules:** None

Specifies the Clear Request retransmission counter. If Counter R22 expires, a Clear Request packet is transmitted. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

w       **Counter R23 (R23):**  
          { {1–3}, CURVAL }

**Default:** CURVAL  
**Initial System Value:** 1  
**Addressing Rules:** None

Specifies the data packet retransmission counter. If Counter R23 expires, the virtual circuit is cleared. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

## ED-PRMTR-LINK

### Input Format

---

ED-PRMTR-LINK: [a]:b:[c]:[d],[e],[f],[g],[h],[i]:[j],[k],[l],[m],[n],[o],[p],[q],[r],[s],[t],[u],[v],[w],[x],[y];

### Input Parameters (Continued)

---

x        **Counter R25 (R25):**  
          { {0-3}, CURVAL }

**Default:** CURVAL  
          **Initial System Value:** 0  
          **Addressing Rules:** None

If Counter R25 expires, a Reset Request packet is transmitted. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

y        **D Bit (D-BIT):**  
          { ON, OFF, CURVAL }

**Default:** CURVAL  
          **Initial System Value:** ON  
          **Addressing Rules:** None

Specifies whether remote DTE acknowledgment in the network is supported. This parameter can only be specified for an X.25 link. Any attempt to assign a value to a non-X.25 link results in the command being denied.

- **ON** - indicates the D-bit is set.
- **OFF** - indicates the D-bit is not set.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

If any parameter is given that conflicts with other parameters of the CILINK, this command is denied.

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
z  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**z**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data not valid
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	Invalid protocol input
SNOS	CILINK not out of service
SROF	Requested operation failed

# ED-SECU-LINK

## INPUT FORMAT

---

ED-SECU-LINK: [a]:b:[c]:[d]:[e],[f],[g],,,,,,;

**Command Name:** Edit Security Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command edits the security parameters associated with a CILINK.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b       **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple CILINKs can be specified.  
  
          Specifies the CILINK whose security parameters are edited.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

ED-SECU-LINK: [a]:b:[c]:[d]:[e],[f],[g],,,,,,;

## Input Parameters (Continued)

---

d        **Inactivity (INACTV):**  
          { {0-60}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 15

**Addressing Rules:** None

Specifies the Inactivity Interval (in minutes) allowed on a login session before that login session is automatically logged-off. Activity is defined as an input command received due to that login session.

If 0 is specified for this parameter, the inactivity timer is shut-off (that is, an infinite length of inactivity can occur without the current login session being logged-off).

e        **Number Lock-Out (NUMBER):**  
          { {1-10}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 5

**Addressing Rules:** None

Specifies the number of Invalid Session Setup Attempts in a given interval (see the **INTRVL** parameter [f]) that are allowed before the channel is locked-out, for the given length of time specified in by the **TM** parameter (g).

f        **Interval Lock-Out (INTRVL):**  
          { {0-90}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 30

**Addressing Rules:** None

Specifies the interval (in minutes) that Number of Invalid Session Setup attempts specified by the **NUMBER** parameter (e) can occur before that channel is locked-out. The channel is locked-out for the given length of time specified by the **TM** parameter (g). If this parameter is set to 0, the lock-out feature for the specified CILINK(s) is disabled.

g        **Time Lock-Out (TM):**  
          { {1-30}, CURVAL }

**Default:** CURVAL

**Initial System Value:** 10

**Addressing Rules:** None

Specifies the interval (in minutes) that a channel is locked-out.

# ED-SECU-LINK

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
h
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**h**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Input data is invalid
IITA	Invalid Target Identifier
IISP	Syntax or punctuation error in entering input command
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SROF	Requested operation failed

## ED-SECU-PID

### INPUT FORMAT

---

ED-SECU-PID: [a]:b:[c]::d,e,,,,,,,,;

**Command Name:** Edit Security Password Id  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command modifies a password.

**Notes:** The system supports a maximum of 512 unique UIDs.

Valid passwords consist of at least two nonalphabetic characters with at least one character being a special legal character (# % +). The first character of a password must be a letter (a-z or A-Z).

### Input Parameters

---

a      **Target ID (TID):**  
         { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b      **User ID (UID):**  
         { <1-10 UID LEGAL CHARACTERS> }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the User Identification (UID) name. Only a user with a UCFC/UCAL of S5 can specify a UID of another user (that is, for everyone but a user with a UCFC/UCAL of S5, the only legal value for this parameter is their own UID).

c      **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## ED-SECU-PID

### Input Format

---

ED-SECU-PID: [a]:b:[c]::d,e,,,,,,,,;

### Input Parameters (Continued)

---

d        **Old Password (OLDPSWD):**  
         { <6-8 PSWD LEGAL CHARACTERS> }

**Default:** None  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the old password replaced by a new one. The value given must match the current password for the UID specified or the command is denied. This parameter is not required for a user with a UCFC/UCAL of S5 if changing the password of another user. However, a user with a UCFC/UCAL of S5 must enter this parameter if changing their own password, otherwise the command is denied.

e        **New Password (NEWPSWD):**  
         { <6-8 PSWD LEGAL CHARACTERS> }

**Default:** None  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the new password.

## RESPONSES

---

### Normal Response

---

The new password is not echoed.

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**f**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	UID does not exist in the database
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PIOC	User is not a superuser (old password is not the same as user password, UCFC/UCAL is not equal to current value, or UCPL is not equal to current value)
PIOC	User is trying to change another user's login and is not a superuser
PIPW	The string <b>ALL</b> is present in the UID field
PIPW	Superuser is changing own login but password does not match
PIPW	Superuser did not enter the correct password of the user they are changing
PIPW	Password or user's name is illegal
PLNA	User is not logged in
SROF	Database failure

# ED-SECU-USER

## INPUT FORMAT

---

ED-SECU-USER:[a]:[b]:[c]::[d],[e],[f]:<g h i j k>, , , , , , , , ;

**Command Name:** Edit Security User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command changes parameter values associated with a user ID (UID).

**Notes:** All changes to parameters take effect as soon as this command is completed.

Valid passwords consist of at least two nonalphabetic characters with at least one character being a special legal character (# % +). The first character of a password must be a letter (a-z or A-Z).

Only users with a User Privilege Code of S5 can change parameters of a user other than themselves. All other users can only change parameters for themselves. For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.

If the **SCREEN** parameter (h) is set to **DBALL** and the **DMODE** parameter (i) is set to **MENU** and the **ECHO** parameter (k) is set to **ON**, the specified UID potentially can receive three copies of the same input command.

If the **ECHO** parameter (k) is set to **ON** for a UID and the **SCREEN** parameter (h) is set to **INPUT** for that UID, the value of **SCREEN** overrides the value of **ECHO** and no **REPT LOCL IN** messages are sent to that UID.

### Input Parameters

---

a      **Target ID (TID):**  
         { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
         **Default:** NOVAL  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

ED-SECU-USER:[a]:[b]:[c]:[d],[e],[f]:<g h i j k>,,,,,,,,;

## Input Parameters (Continued)

---

**b Old User ID (OLDUID):**  
{ <1-10 UID LEGAL CHARACTERS>, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the old user identification (UID) name. Only users with a UCFC/UCAL of S5 can change parameters of a user other than themselves. This parameter must be entered by a superuser when changing parameters of another user. Otherwise, this command is denied.

**c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

**d New User ID (NEWUID):**  
{ <1-10 UID LEGAL CHARACTERS>, CURVAL }

**Default:** CURVAL, the old UID

**Initial System Value:** None

**Addressing Rules:** None

Specifies the new user identification (UID) name.

**e Password (PSWD):**  
{ <6-8 PSWD LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the password of the old UID. This parameter validates the identity of the old UID. A superuser does not need to enter this parameter to be able to change parameter values associated with other users.

## ED-SECU-USER

### Input Format

---

ED-SECU-USER: [a] : [b] : [c] : : [d] , [e] , , [f] : <g h i j k> , , , , , , , ;

### Input Parameters (Continued)

---

f        **User Community Functional Category/User Community Authorization Level**  
          (UCFC/UCAL):  
          { P{1-5}, M{1-5}, T{1-5}, S{1-5}, PM{1-5}, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** Multiple UCFC/UCALs can be specified using single ampersands [&] (described in the section titled **Grouping of Parameter Arguments** in Chapter 1) with the exception that up to five UCFC/UCALs can be specified (not the standard limit of four used for other parameters).

Specifies the User Privilege Code (User Community Functional Category and User Community Authorization Level [UCFC/UCAL] pair).

g        **User Community Priority Level (UCPL):**  
          UCPL = { 1-5, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the User Community Priority Level. Input commands from users with higher priority are executed before commands from users with lower priority.

h        **Message Screening (SCREEN):**  
          SCREEN = { INPUT, AUTO, ALL, DBAUTO, DBALL, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies what output messages are associated with a UID.

- **INPUT** - specifies that the UID receives responses to its own commands.
- **AUTO** - specifies that the UID receives responses to its own commands and autonomous messages except REPT DBCHG messages due to manual command input.
- **ALL** - specifies that the UID receives responses to its own commands, autonomous messages except REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.
- **DBAUTO** - specifies that the UID receives responses to its own commands and autonomous messages including REPT DBCHG messages due to manual command input.
- **DBALL** - specifies that the UID receives responses to its own commands, autonomous messages including REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.

## Input Format

---

ED-SECU-USER:[a]:[b]:[c]::[d],[e],[f]:<g h i j k>, , , , , , , , ;

## Input Parameters (Continued)

---

i        **Dialog Mode (DMODE):**  
          DMODE = { MENU, COMMAND, CURVAL }  
  
          **Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the dialog mode for the UID.

- **MENU** - indicates that the UID uses the full dialog/prompt procedure.
- **COMMAND** - indicates that the dialog/prompt procedure is only entered through a question mark.

j        **User Type (UTYPE):**  
          UTYPE = { HUMAN, MACHINE, CURVAL }  
  
          **Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the User Type.

- **HUMAN** - specifies that the UID receives command verification warnings (refer to the **Command Verification** appendix for more information).
- **MACHINE** - specifies that the UID does not receive command verification warnings.

k        **Message Echo (ECHO):**  
          ECHO = { ON, OFF, CURVAL }  
  
          **Default:** CURVAL  
          **Initial System Value:** OFF  
          **Addressing Rules:** None

Specifies whether REPT LOCL IN messages are received by the UID.

- **ON** - indicates REPT LOCL IN messages are received by the UID.
- **OFF** - indicates REPT LOCL IN messages are not received by the UID.

## ED-SECU-USER

### RESPONSES

---

#### Normal Response

---

Passwords are not echoed.

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
1
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**l**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	UID does not exist in the database
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PICC	Last superuser is trying to remove own login
PIOC	User is not a superuser (old password is not the same as user password, UCFC/UCAL is not equal to current value, or UCPL is not equal to current value)
PIOC	User is trying to change another user's login and is not a superuser
PIPW	The string <b>ALL</b> is present in the UID field
PIPW	Superuser is changing own login but password does not match
PIPW	Superuser did not enter the correct password of the user they are changing
PIPW	Password or user's name is illegal
PIUI	UID already exists in the database
PLNA	User is not logged in
SROF	Database failure

## ED-STATE-EQPT

### INPUT FORMAT

---

ED-STATE-EQPT: [a] :b: [c] :d, , , , , , ;

**Command Name:** Edit State Equipment  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command edits the maintenance state of equipment in ways other than through a remove, restore, switch, or other maintenance command. The only present application in the DACS IV-2000 is to move the MC from the IS (in-service) state to the OOS-MCOND (maintenance condition) state.

**Notes:** Most system functions are not allowed when the MC is not in service. Certain functions, however, can be performed with the MC out of service, or require the MC to be out of service. These functions are described in the section titled **Allowable Commands for Various Main Controller States** in Chapter 1, and in the individual command listing for each function.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Equipment Location (LOC):**  
          { MC }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type of equipment whose state is to be set.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## ED-STATE-EQPT

### Input Format

---

ED-STATE-EQPT: [a]:b:[c]:d,,,,,,,,;

### Input Parameters (Continued)

---

d        **New Equipment State (NEWSTATE):**  
          { OOS-MCOND }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the new state of the given equipment. Definitions of states for circuit packs, along with their meanings, are listed in the **State Names** appendix.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is in out of service state

# ENT-AUTOCMPN-T1

## INPUT FORMAT

---

ENT-AUTOCMPN-T1: [a]:b:[c]:[d],,,,,,;

**Command Name:** Enter Automatic Camp On T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually provisions which PMGR port(s) are used as automatic camp-on monitoring ports when a DS1 facility being scanned shows degraded service. This command also is used to release a port from being designated for this particular camp-on use.

**Notes:** If the specified PMGR port (PORT parameter [b]) is already provisioned for automatic camp-on monitoring and the ASNPT parameter (d) is set to Y (yes), this command completes with no action taken.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Monitoring DS1 Port (PORT):**  
          { {1-32}-{1-31}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple DS1 ports can be specified.

Specifies the DS1 port(s) that are used as the Monitoring Ports in the automatic Camp-on Performance Monitoring feature.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

---

ENT-AUTOCMPN-T1: [a]:b:[c]:[d],,,,,,;

### Input Parameters (Continued)

---

d        **Assign Port (ASNPT):**  
          { Y, N }

**Default:** Y

**Initial System Value:** None

**Addressing Rules:** None

Specifies if the DS1 port(s) are used as a monitoring port in the automatic Camp-on Performance Monitoring feature.

- **Y (Yes)** - indicates the specified DS1 port(s) are used as automatic camp-on ports.
- **N (No)** - releases the specified DS1 port(s) as automatic camp-on ports.

# ENT-AUTOCMPN-T1

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
e
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c     **Correlation Tag (CTAG):**  
      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e     **Error Code (ERRCDE):**  
      { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDRG	Input data out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution aborted due to error in implementation
SNIS	UC is not in service
SNPV	No provisionable ports found
SNPV	Circuit pack is not provisioned
SNVS	Current port state is not amenable for auto camp-on change
SNVS	Port is not PMGR1 circuit pack port

## ENT-CONF-**{STS1|T1|VT1}**

### INPUT FORMAT

---

ENT-CONF-**{STS1|T1|VT1}**: [a]:b,c:[d]:: <e>:, [f],,,,,,;

**Command Name:** Enter Conference **{STS1|T1|VT1}**  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command forms a one-way cross-connect between an Input Port (designated FROM) that can already be cross-connected to one or more Output Ports, and another Output Port (designated ADDTO). This connection creates broadcast (bridge) connections. In the present release of software, no more than two Output Ports can be cross-connected to one Input Port in this manner.

**(T1):** Any of the FROM or ADDTO ports can be on an asynchronous (DS1 or DS3) or synchronous (STS1) interface module.

**Notes:** All cross-connections in the DACS IV-2000 are constructed from one-way connections. Therefore, any connections that are set up by this command can be taken down using **DLT-CRS-**{STS1|T1|VT1}****. This command can be used to put up the first connection to an Input Port, as well as adding additional connections.

For the **ENT-ROLL**, **CONN-TACC**, **ENT-CONF**, and **ENT-CRS** commands, these commands are denied when circuit packs are failed and not protected.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a      **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## ENT-CONF-**{STS1|T1|VT1}**}

### Input Format

ENT-CONF-**{STS1|T1|VT1}**:[a]:b,c:[d]:::<e>:, [f],,,,,,,,,;

### Input Parameters (Continued)

**b FROM Port (FROM):**

**(STS1):** STS-1 Port: { {1-32}-{1-15} }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 nterface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the FROM Input Port.

**c ADDTO Port (ADDTO):**

**(STS1):** STS-1 Port: { {1-32}-{1-15} }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the ADDTO Output Port.

**d Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

ENT-CONF-**{STS1|T1|VT1}**: [a]:b,c:[d]::;<e>:, [f],,,,,,,,,;

## Input Parameters (Continued)

---

- e       **Output Mode (OMODE):**  
          **(STS1|VT1):** OMODE = { NORM, TERM, AIS }  
          **(T1):** OMODE = { NORM, TERM, AIS, QRSS }

**Default:** NORM

**Initial System Value:** None

**Addressing Rules:** None

Specifies what is transmitted from the ADDTO Port.

**(T1):** The value **QRSS** is not valid for the DS1 Ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

- f       **Special Service Type (SST):**  
          { RDLD, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether the circuit is red-lined (Special Service Protection or SSP facilities). If the FROM Port is already connected, this parameter must be the same as for the present connections to this FROM Port.

Any connections that are specified to be red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non-red-lined) circuit is denied. Multipoint circuits must use red-lined consistently for all ports in the circuit. If the initial connection from an Input Port is specified as red-lined, all subsequent connections from the same Input Port must also be red-lined. Conversely, if the initial connection is not red-lined, none of the others can be either.

- **RDLD** - indicates the created cross-connection is red-lined.
- **NOVAL** - indicates the created cross-connection is not red-lined.

## RESPONSES

---

### Normal Response

---

#### (STS1IVT1):

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: FROM INPUT UNDRIVEN */]
[ /* WARNING: SIGNAL LABEL MISMATCH */]
;
```

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: FROM INPUT UNDRIVEN */]
[ /* WARNING: AMI/B8ZS MISMATCH */]
;
```

If the FROM Port is undriven, a warning notice is sent out to inform you that the input is not being monitored (the warning notice appears before the terminating semicolon).

(T1): If the FROM and ADDTO DS1 Ports have different Code Type settings (that is, AMI and B8ZS), a warning notice appears before the terminating semicolon. The Code Type setting is not applicable to DS1 Ports on the SONET interfaces.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
g
{ "<parsable text string>" }
;
```

### Output Parameters

---

d **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

g **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ERLC	Red-lined circuit
IDNV	Not a red-lined circuit
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SACC	ADDTO Port is mapped (Out)
SACC	FROM Port is already connected to two legs (maximum)
SARB	Specified path not available in the switch
SNIS	Interface module specified in the FROM or ADDTO Port is not in service
SNPV	Circuit pack specified in the FROM or ADDTO Port is not provisioned
SNVS	More than one switch center is bad
SNVS	FROM or ADDTO Port is provisioned as a QRSS Port, is under test or is a testport, or is in Loopback
SOSF	Circuit pack specified in the FROM or ADDTO Port is bad or failed (including corresponding SWIO or SWIF circuit packs)
SOSF	If UC for the FROM Port is all right, ADDTO Port is bad or failed

# ENT-CRS-{STS1|T1|VT1}

## INPUT FORMAT

---

ENT-CRS- {STS1|T1|VT1}: [a]:b,c:[d]::[e]:<f g>:, [h],,,,,,;

**Command Name:** Enter Cross Connect {STS1|T1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

## Purpose

---

**(STS1|VT1):** This command forms a one-way or two-way cross-connect between two (STS-1|VT1.5) Ports (designated FROM and TO) on an STS1 Interface Module.

**(T1):** This command forms a one-way or two-way cross-connect between two DS1 Ports (designated FROM and TO) on a DS1, DS3, or STS1 Interface Module. Both (FROM and TO) ports can be on asynchronous (DS1 or DS3) interface or synchronous (STS1) interface modules, or one port can be on an asynchronous interface module and the other on a synchronous interface module. The cross-connect between an asynchronous and a synchronous interface module is called a *Gateway Cross-connect*.

**Notes:** All cross-connections in the DACS IV-2000 are constructed from one-way connections. Entering two ENT-CRS- (STS1|T1|VT1) commands with the CCT parameter (e) set to 1WAY for the same two (STS-1|T1|VT1.5) Ports, with the FROM and TO Ports reversed, is the equivalent of entering a single ENT-CRS- (STS1|T1|VT1) command with the CCT parameter set to 2WAY. The resulting two-way cross connect can be disconnected using a single DLT-CRS- (STS1|T1|VT1) command with the CCT parameter set to 2WAY.

For the ENT-ROLL, CONN-TACC, ENT-CONF, and ENT-CRS commands, these commands are denied when circuit packs are failed and not protected.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

## Input Parameters

---

a      **Target ID (TID):**  
        { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

ENT-CRS-{STS1|T1|VT1}: [a]:b, c: [d]:: [e]: <f g>:, [h],,,,,,,,,;

## Input Parameters (Continued)

---

**b FROM Port (FROM):**

**(STS1):** STS-1 Port: { {1-32}-{1-15} }  
**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the FROM Port.

**c TO Port (TO):**

**(STS1):** STS-1 Port: { {1-32}-{1-15} }  
**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.

**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.

**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the TO Port.

**d Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

# ENT-CRS-{STS1|T1|VT1}

## Input Format

---

ENT-CRS- {STS1|T1|VT1} : [a] : b, c : [d] : : [e] : <f g> : , [h] , , , , , , , , ;

## Input Parameters (Continued)

---

e        **Cross-Connect Type (CCT):**  
          { 1WAY, 2WAY }

**Default:** 2WAY  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies the Cross-Connect Type.

- **1WAY** - indicates a one-way connection.
- **2WAY** - indicates a two-way connection.

f        **FROM Output Mode (FOMODE):**  
          (STS1|VT1): FOMODE = { NORM, TERM, AIS, NOVAL }  
          (T1): FOMODE = { NORM, TERM, AIS, QRSS, NOVAL }

**Default:** NORM for two-way cross-connections, NOVAL for one-way  
                  cross-connections  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies what is transmitted from the FROM Output Port. This parameter must be **NOVAL** for one-way cross-connections.

(T1): the value **QRSS** is not valid for the DS1 Ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

g        **TO Output Mode (TOMODE):**  
          (STS1|VT1): TOMODE = { NORM, TERM, AIS }  
          (T1): TOMODE = { NORM, TERM, AIS, QRSS }

**Default:** NORM  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies what is transmitted from the TO Output Port. The parameter values are the same as those given in the **FOMODE** parameter (f).

(T1): the value **QRSS** is not valid for the DS1 Ports on the SONET interfaces.

### Input Format

ENT-CRS-{STS1|T1|VT1}: [a]:b,c:[d]::[e]:<f g>:, [h],,,,,,,,,;

### Input Parameters (Continued)

h        **Special Service Type (SST):**  
          { RDL, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether the circuit is red-lined (Special Service Protection or SSP facilities).

Any connections that are specified to be red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non-red-lined) circuit is denied. Multipoint circuits must use red-lined consistently for all ports in the circuit. If the initial connection from an Input Port is specified as red-lined, all subsequent connections from the same Input Port must also be red-lined. Conversely, if the initial connection is not red-lined, none of the others can be either.

- **RDL** - indicates the created cross-connection is red-lined.
- **NOVAL** - indicates the created cross-connection is not red-lined.

## RESPONSES

---

### Normal Response

---

#### (STS1IVT1):

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: FROM INPUT UNDRIVEN */]
[ /* WARNING: TO INPUT UNDRIVEN */]
[ /* WARNING: SIGNAL LABEL MISMATCH */]
;
```

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: FROM INPUT UNDRIVEN */]
[ /* WARNING: TO INPUT UNDRIVEN */]
[ /* WARNING: AMI/B8ZS MISMATCH */]
;
```

If the FROM or TO input is undriven, a warning notice is sent out to inform you that the input is not being monitored (one or both of the warning messages appear before the terminating semicolon).

(T1): If the FROM and TO Ports have different Code Type settings (that is, AMI and B8ZS), a warning notice is sent before the terminating semicolon. The Code Type setting is not applicable to DS1 Ports on SONET interfaces.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
i
[ "<parsable text string>"]
;
```

### Output Parameters

---

d **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

i **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	FROM and TO Ports are the same
IDRG	UNIT IDs of the FROM and TO Ports are different
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
PLNA	User is not logged in
SABT	Error occurred in hardware when trying to set up cross-connect
SACC	FROM Port is mapped (In) and TO Port is mapped (Out)
SACC	FROM Port is mapped (In, Out) and TO Port is mapped (In,Out)
SARB	Specified path not available in the switch
SNIS	Interface module specified in the FROM or TO Port is not in service
SNPV	Circuit pack specified in the FROM or TO Port is not provisioned
SNVS	FROM or TO Port is in Loopback, is provisioned as a QRSS Port, is under test, or is a testport
SNVS	More than one SWCS circuit pack is bad
SOSF	If UC for FROM Port is all right, TO Port is bad or failed
SOSF	Circuit pack specified in the FROM to TO Port is bad or failed (including corresponding SWIO or SWIF circuit packs)

# ENT-EQPT

## INPUT FORMAT

---

ENT-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n o p>,,,,,;

**Command Name:** Enter Equipment  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually provisions equipment into the system database. For all equipment except the interface modules, this command moves the circuit pack from the AVAIL state to the PNDG, EQPD, or PROV state depending on what has already been provisioned in the system. For interface modules, this command moves interface modules from the AVAIL state to the PROV state.

**Notes:** The SYNC circuit packs must be manually provisioned.

When a interface module is first provisioned (with this command), the UC associated with that interface module is in the OOS-MTCE state. No alarm, however, is associated with that UC. Once a UC has been restored (with the `RST-EQPT` command), there is an alarm whenever the UC is removed from service.

When a DS3PM circuit pack is first provisioned (with this command), it is in the OOS-MTCE state, but no is alarm associated with that DS3PM circuit pack. Once a DS3PM circuit pack is restored at least once (with the `RST-EQPT` command), there is an alarm whenever that DS3PM circuit pack is removed from service.

A DS3PM circuit pack can not be installed in an STS1 Interface Module.

The table on the following page shows the provisioning sequence for the DACS IV-2000. For a circuit pack or interface module (UNIT) in the left-hand column to be provisioned, the supporting circuit packs or interface modules in the right-hand column must have already been provisioned first. Conversely, in order to deprovision a circuit pack or interface module in the right-hand column, all of the circuit packs and interface modules that it supports from the left-hand columns must have been already deprovisioned (with the exception that for deprovisioning an interface module, the associated UC must first be removed from service).

**DACS IV-2000 Provisioning Hierarchy**

Entity	Number of Circuit Packs Required	Supporting Entity
CC (1)	8	none
PRI (2)	1	none
SEC	2	none
SYNC (3)	6	none
CLKGN	2	none or SYNC (4)
ECI (2)	2	CC
SWCS	32	CLKGN
SWIO (5)	2	CLKGN
UNIT (7)	1	none
DS3PM	1	UNIT
CLKDR (5)	2 or 4 (6)	UNIT, SWIO
PMGR	1	CLKDR
MUXP	1	CLKDR
MUX	1	MUXP
SMUXP	1	CLKDR
SMUX	1	SMUXP
DS1RY	1	UNIT
SWIF	1	CLKDR
DS1IP	1	SWIF-P, DS1RY
DS1IF	2	SWIF, DS1IP (8)

**Notes:**

1. Must be provisioned as a group (CPU, MTC, SSC, UI, SCI). If both controller sides are not provisioned, an alarm is raised.
2. If both ECIs or PRIs are not provisioned, an alarm is raised.
3. SYNC is provisioned as a group (DPLL, DS1TX [TX], and TBS3 [TB]). If all circuit packs on both SYNC sides are not present, alarms are raised.
4. SYNC is required if CLKGN3 circuit packs are present (to support SONET)
5. Must be provisioned in pairs.
6. Depending on the type of interface module
7. DS1 Interface Module requires supporting DS1 Interface-Protection Module.
8. The supporting DS1IP circuit pack can be in another DS1 Interface Module.

**Input Parameters**

a **Target ID (TID):**  
 { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

# ENT-EQPT

## Input Format

---

ENT-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n o p>,,,,,,,,; ;

## Input Parameters (Continued)

---

- b        **Equipment Location (LOC):**  
          { UNIT-{1-32}, DS3PM-{1-32}, DPLL-{0,1}, TB-{0,1}, TX-{0,1}, SWIO-{1-32},  
          CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, SWIF-{1-32}-{1-8,P},  
          DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4},  
          SMUX-{1-32}-{1-15}, SMUXP-{1-32} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Restrictive multiple addressing can be specified for SWIO, CLKDR, MUX, SWIF, DS1IF, DS1RY, and SMUX. In the DACS IV-2000, SWIO, CLKDR, DPLL, TB, and TX circuit packs are provisioned in groups of two (two SWIOs, two CLKDRs, two DPLLs, two TBs, or two TXs) due to the architectural relationships between them. For circuit packs and interface modules that are entered in provisioning groups, specifying any member or members of that group enters the entire group. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location. When entering a DS3PM circuit pack, the TABS terminating resistor must be checked to ensure that it is in the proper place. Refer to the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) for details.

The location that is assigned to an interface module (UNIT) or DS3PM with this command is used in other commands to refer to all other circuit packs associated with a given interface module or DS3PM circuit pack. Because of the assignment of the SWLOC (e), CABLEID (f), and PROTLOC (g) parameters that are performed in this command, the location number is not restricted in any way by the system architecture, and can be treated as a purely administrative address. However, it is recommended that for the DS3PM circuit pack, the location of the interface module is also used for the DS3PM circuit pack (that is, if there is a DS3PM circuit pack associated with UNIT-7, it should be designated DS3PM-7).

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

ENT-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n o p>,,,,,,,,;

## Input Parameters (Continued)

---

d           **Unit Type (UTYPE):**  
              { 32DS3, 16DS3, DS1, DS1P, 16STS1, NOVAL }

**Default:** None for UNIT, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the type of interface module. **NOVAL** is not allowed for an equipment location of **UNIT**. For all other equipment locations, this parameter must be **NOVAL**.

- **32DS3** - indicates a DS3 Interface-32 Module.
- **16DS3** - indicates a DS3 Interface-16 Module.
- **DS1** - indicates a DS1 Interface Module.
- **DS1P** - indicates a DS1 Interface-Protection Module.
- **16STS1** - indicates an STS1 Interface Module.

e           **Switch Connection Equipment Location (SWLOC):**  
              SWLOC = { SWIO-{1-32}, NOVAL }

**Default:** None for UNIT, NOVAL all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the lowest-numbered SWIO circuit pack that provides service connections to the specified interface module. If the **UTYPE** parameter (d) is **32DS3**, **16DS3**, or **16STS1**, the value for this parameter must be odd. **NOVAL** is not allowed for an equipment location of **UNIT**. For all other equipment locations, this parameter must be **NOVAL**.

f           **Control Cable ID (CABLEID):**  
              CABLEID = { J{1-32}, NOVAL }

**Default:** None for DS3PM and UNIT, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Control Cable ID associated with the specified interface module or DS3PM circuit pack. **NOVAL** is not allowed for an equipment location of **DS3PM** or **UNIT**. For all other equipment locations, this parameter must be **NOVAL**.

g           **Protection Equipment Location (PROTLOC):**  
              PROTLOC = { UNIT-{1-32}, NOVAL }

**Default:** None for DS1 Unit Type, NOVAL for all other Unit Types

**Initial System Value:** None

**Addressing Rules:** None

Specifies the DS1 Interface-Protection Module that provides the protection for the specified DS1 Interface Module (if it is a DS1 Interface Module). **NOVAL** is not allowed for a unit type of **DS1**. For all other unit types, **NOVAL** is the only valid value.

## ENT-EQPT

### Input Format

---

ENT-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n o p>,,,,,,,,;

### Input Parameters (Continued)

---

**h Telemetry Display Number (TELDISP):**

TELDISP = { {0-31}, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the telemetry display to be used on the AS&C telemetry link for the specified interface module. If the **UTYPE** parameter (d) is **DS1** or **DS1P**, the domain for this parameter is 0-31, and the default (if this parameter is omitted) is the UNIT number (the last information unit of the **LOC** parameter [b]) minus 1. If **UTYPE** is **16DS3**, **32DS3**, or **16STS1**, the domain for this parameter is 0-15, and there is no default (this parameter **must** be specified for these unit types). **NOVAL** is not allowed for an equipment location of **UNIT**. For all other equipment locations, this parameter must be **NOVAL**.

**i DS3PM Multipoint Address (MULPTADD):**

MULPTADD = { {0-31}, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Layer 2 (multipoint) address used on the TABS link associated with a DS3PM circuit pack. The default value is the DS3PM number specified in the **LOC** parameter (b) minus 1. If the **LOC** parameter (b) is not **DS3PM**, this parameter must be given as **NOVAL**.

**j Code Name (CODE):**

CODE = { AWP9, AWP15, AWS3, AWS5, AWS8, AWS9, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Identifies the Code Name for the circuit pack type being used to implement the function specified by the **LOC** parameter (b). If the **LOC** parameter is not **DPLL**, **TB**, or **TX**, this parameter must be given as **NOVAL**.

**k Primary Timing Reference (SYNCPRI):**

SYNCPRI = { 1, 2, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the TX port to which the Primary Synchronization Reference is connected. If the **LOC** parameter (b) is not **TX**, this parameter must be given as **NOVAL**. If a value of 1 is entered for this parameter, then the **SYNCSEC** parameter (l) must be set to 2; if a value of 2 is entered for this parameter, then the **SYNCSEC** parameter (l) must be set to 1. Otherwise, this command is denied.

## Input Format

---

ENT-EQPT:[a]:b:[c]::[d]:<e f g h i j k l m n o p>,,,,,,,,;

## Input Parameters (Continued)

---

**l Secondary Timing Reference (SYNCSEC):**

SYNCSEC = { 1, 2, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the TX port to which the Secondary Synchronization Reference is connected. If the LOC parameter (b) is not TX, this parameter must be given as NOVAL. If a value of 1 is entered for this parameter, then the SYNCPRI parameter (k) must be set to 2; if a value of 2 is entered for this parameter, then the SYNCPRI parameter (k) must be set to 1. Otherwise, this command is denied.

**m TLI Port 1 Framing Format (TLIP1FF):**

TLIP1FF = { ESF, SF, NOVAL }

**Default:** None for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the DS1 Framing Format to be assigned to this Timing Link Interface Port. If the LOC parameter (b) is not TX- { 0 , 1 } , this parameter must be given as NOVAL.

**n TLI Port 2 Framing Format (TLIP2FF):**

TLIP2FF = { ESF, SF, NOVAL }

**Default:** None for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the DS1 Framing Format to be assigned to this Timing Link Interface Port. If the LOC parameter (b) is not TX- { 0 , 1 } , this parameter must be given as NOVAL.

**o TLI Port 1 Line Code (TLIP1LC):**

TLIP1LC = { AMI, B8ZS, NOVAL }

**Default:** None for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the DS1 Code Type to be assigned to this Timing Link Interface Port. If the LOC parameter (b) is not TX- { 0 , 1 } , this parameter must be given as NOVAL.

**p TLI Port 2 Line Code (TLIP2LC):**

TLIP2LC = { AMI, B8ZS, NOVAL }

**Default:** None for TX-{0,1}, NOVAL for all other equipment

**Initial System Value:** None

**Addressing Rules:** None

Specifies the DS1 Framing Format to be assigned to this Timing Link Interface Port. If the LOC parameter (b) is not TX- { 0 , 1 } , this parameter must be given as NOVAL.

# ENT-EQPT

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
q
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c      **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

q      **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
EHNS	Equipment hierarchy not satisfied
ENEQ	Illegal circuit pack type for specified interface module
ENRE	Unexpected slot type
ENRE	For the specified interface module, the MTC circuit pack is present and it must be MTC2
IDRG	Illegal range for equipment
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAAS	Specified SWIO circuit pack or LAN node or Telemetry link point is already assigned
SAPV	The interface module is already provisioned
SARB	The DS1 interface-protection module is assigned to another DS1 interface module
SNPV	Interface module ID is not provisioned
SNPV	The DS1 interface-protection module is not yet provisioned for DS1 interface module

## ENT-FAN-FILTER

### INPUT FORMAT

---

ENT-FAN-FILTER: [a] :: [b] :: [c] , , , , , , , ;

**Command Name:** Enter Fan Filter  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command notifies the system that periodic maintenance has been performed on the Switch Bay fan air filter (the fan air filter is in front of the Switch Bay's cooling fan).

**Notes:** When the Switch Bay fan air filter replacement is required, the system issues a series of REPT FAN FILTER messages as a notification that air filter maintenance must be performed. Issuing the **ENT-FAN-FILTER** command terminates the issuance of the current generation of REPT FAN FILTER messages, and sets the next date of notification for three months (nominally) from the current date.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

c       **Report Mode (REPTMODE):**  
          { ON, OFF }  
  
          **Default:** ON  
          **Initial System Value:** ON  
          **Addressing Rules:** None

Specifies whether REPT FAN FILTER messages are enabled or disabled.

- **ON** - indicates REPT FAN FILTER messages are enabled.
- **OFF** - indicates REPT FAN FILTER messages are disabled.

# ENT-FAN-FILTER

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
d
[ "<parsable text string>"
;
```

### Output Parameters

---

b **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

## ENT-ROLL-**{STS1|T1|VT1}**

### INPUT FORMAT

ENT-ROLL-**{STS1|T1|VT1}** : [a] : b, c : [d] : e : [f] : [g] : [h] , , , , , , ;

**Command Name:** Enter Rollover **{STS1|T1|VT1}**  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

This command performs either of the following two functions:

- Rolls over a one-way cross-connect between an Input Port (designated FROM) and an Output Port (designated TO), so that the FROM Input Port is replaced by a new Input Port (designated NEWFROM).
- Rolls over a two-way cross-connect between a port designated FROM and another port designated TO, so that the FROM Port is replaced by a new port designated NEWFROM.

**(T1):** Any of the FROM, TO, or NEWFROM DS1 Ports can be on an asynchronous (DS1 or DS3) or synchronous (STS1) interface module.

**Notes:** All cross-connections in the DACS IV-2000 are constructed from one-way connections. Therefore, any connections that are set up by this command can be taken down using the **DLT-CRS-**{STS1|T1|VT1}**** command.

For the **ENT-ROLL**, **CONN-TACC**, **ENT-CONF**, and **ENT-CRS** commands, these commands are denied when circuit packs are failed and not protected.

This command only completes if the NEWFROM Port has a valid signal (that is, no alarm conditions are present). In addition, if the signal at the NEWFROM Port is a tributary of a higher-level signal (that is, DS3, VT1.5, or STS-1), that parent is also checked for alarm conditions. If alarm conditions are present on the higher-level signal (that is, the parent of the signal at the NEWFROM Port), the command is denied.

Use of the **ENT-ROLL-**{STS1|T1|VT1}**** command does not automatically take down a broadcast path left up after a roll command. Any broadcast path left up as a result of this command must be taken down using the **DLT-CRS-**{STS1|T1|VT1}**** or **DLT-CONF-**{STS1|T1|VT1}**** command.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

# ENT-ROLL-{STS1IT1IVT1}

## Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b       **FROM Port (FROM):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:**  
**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.  
**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.  
**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the FROM Input Port for a one-way roll, or the FROM Port for a two-way roll.

- c       **TO Port (TO):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:**  
**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.  
**(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.  
**(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.

Specifies the TO Output Port for a one-way roll, or the TO Port for a two-way roll.

- d       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

ENT-ROLL- {STS1|T1|VT1} : [a] : b, c : [d] : e : [f] : [g] : [h] , , , , , , , , ;

### Input Parameters (Continued)

- e        **NEWFROM Port (NEWFROM):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Default:** None  
                  **Initial System Value:** None  
                  **Addressing Rules:**  
                  **(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.  
                  **(T1):** Multiple DS1 Ports within the same DS3 or STS-1 equivalent can be specified.  
                  **(VT1):** Multiple VT1.5 Ports within the same STS-1 equivalent can be specified.
- Specifies the NEWFROM Input Port for a one-way roll, or the NEWFROM Port for a two-way roll.
- f        **Special Service Type (SST):**  
          { RDLD, NOVAL }
- Default:** NOVAL  
                  **Initial System Value:** None  
                  **Addressing Rules:** None
- Specifies whether the circuit is red-lined (Special Service Protection or SSP facilities). Any connections that are specified to be red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To ensure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non-red-lined) circuit is denied.
- **RDLD** - indicates the created cross-connection is red-lined.
  - **NOVAL** - indicates the created cross-connection is not red-lined.

## ENT-ROLL-**{STS1|T1|VT1}**}

### Input Format

---

ENT-ROLL-**{STS1|T1|VT1}** : [a] : b, c : [d] : e : [f] : [g] : [h] , , , , , , , ;

### Input Parameters (Continued)

---

- g        **TO Output Mode (TOMODE):**  
          **(STS1|VT1):** { NORM, TERM, AIS, CURVAL }  
          **(T1):** { NORM, TERM, AIS, QRSS, CURVAL }

**Default:** CURVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies what is transmitted from the TO Output Port.

**(T1):** The value QRSS is not valid for the DS1 Ports on the SONET interfaces.

- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

- h        **Roll Type (ROLL):**  
          { ONEWAY, TWOWAY }

**Default:** ONEWAY

**Initial System Value:** None

**Addressing Rules:** None

Specifies one-way (**ONEWAY**) or two-way (**TWOWAY**) roll.

## RESPONSES

---

### Normal Response

---

**(T1):**

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: NEW FROM INPUT UNDRIVEN */]
[ /* WARNING: AMI/B8ZS MISMATCH */]
;
```

**(STS1IVT1):**

```
TID YY-MM-DD HH:MM:SS
M d COMPLD
[ /* WARNING: NEW FROM INPUT UNDRIVEN */]
;
```

If the NEWFROM input is undriven, a warning notice is sent out to inform you that the input is not being monitored (the warning message appears before the terminating semicolon).

**(T1):** If the NEWFROM and TO Ports have different Code Type settings (that is, AMI and B8ZS), a warning notice appears before the terminating semicolon. The Code Type setting is not applicable to DS1 Ports on SONET interfaces.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M d DENY
i
[ "<parsable text string>"]
;
```

### Output Parameters

---

**d Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**i Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ERLC	Red-lined circuit
IDNV	Not a red-lined circuit
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SACC	NEWFROM Port is in a broadcast connection
SACC	FROM and NEWFROM are the same

## ENT-ROLL-{STS1IT1IVT1}

### Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SARB	Specified path not available in the switch
SNCC	FROM is not connected (In) or TO is not connected (Out)
SNIS	Interface module specified in the FROM or TO Port is not in service
SNPV	Circuit pack specified in the FROM or TO Port is not provisioned
SNVS	There is not a valid signal at the NEWFROM Port
SNVS	There is a yellow alarm associated with the NEWFROM Port
SNVS	More than one SWCS circuit pack is bad
SNVS	FROM or TO Port is under test or is a testport or is in Loopback
SNVS	NEWFROM is provisioned as a QRSS Port or is in a LPBK state
SOSF	Circuit pack specified in the FROM to TO Port is bad or failed (including corresponding SWIO or SWIF circuit packs)
SOSF	If UC for FROM Port is all right, TO Port is bad or failed

## ENT-SECU-USER

### INPUT FORMAT

---

ENT-SECU-USER:[a]:b:[c]::d,,e:<f g h i j>,,,,,,,,;

**Command Name:** Enter Security User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command adds a new user to the system.

**Notes:** The system supports a maximum of 512 unique UIDs.

Valid passwords consist of at least two nonalphabetic characters with at least one character being a special legal character (# % +). The first character of a password must be a letter (a-z or A-Z).

For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.

If the **SCREEN** parameter (g) is set to **DBALL**, and the **DMODE** parameter (h) is set to **MENU**, and the **ECHO** parameter (i) is set to **ON**, the specified UID potentially can receive three copies of the same input command.

If the **ECHO** parameter (i) is set to **ON** for a UID and the **SCREEN** parameter (g) is set to **INPUT** for that UID, the value of **SCREEN** overrides the value of **ECHO** and no **REPT LOCL IN** messages are sent to that UID.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS> }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the new user identification (UID) name. The string **ALL** is not allowed as a UID.

# ENT-SECU-USER

## Input Format

---

ENT-SECU-USER: [a]:b:[c]::d,,e:<f g h i j>,,,,,,,,;

## Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Password (PSWD):**  
         { <6-8 PSWD LEGAL CHARACTERS> }

**Default:** None  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the new password.

e        **User Community Functional Category/User Community Authorization Level (UCFC/UCAL):**  
         { P{1-5}, M{1-5}, T{1-5}, S{1-5}, PM{1-5} }

**Default:** None  
         **Initial System Value:** None  
         **Addressing Rules:** Multiple UCFC/UCALs can be specified using single ampersands (&), as described in the section titled **Grouping of Parameter Arguments** in Chapter 1, with the exception that up to five UCFC/UCALs can be specified (not the standard limit of four used for other parameters).

Specifies the User Privilege Code (User Community Functional Category and User Community Authorization Level pair [UCFC/UCAL]).

f        **User Community Priority Level (UCPL):**  
         UCPL = { 1-5 }

**Default:** 5 for a created superuser login or 1 for a created non-superuser login.  
         **Initial System Value:** None  
         **Addressing Rules:** None

Specifies the User Community Priority Level. Input commands from users with higher priority are executed before commands from users with lower priority.

## Input Format

---

ENT-SECU-USER:[a]:b:[c]::d,,e:<f g h i j>,,,,,,,,;

## Input Parameters (Continued)

---

g       **Message Screening (SCREEN):**  
          SCREEN = { INPUT, AUTO, ALL, DBAUTO, DBALL }  
  
                  **Default:** DBALL  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies what output messages are associated with a UID.

- **INPUT** - specifies that the UID receives responses to its own commands.
- **AUTO** - specifies that the UID receives responses to its own commands and autonomous messages except REPT DBCHG messages due to manual command input.
- **ALL** - specifies that the UID receives responses to its own commands, autonomous messages except REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.
- **DBAUTO** - specifies that the UID receives responses to its own commands and autonomous messages including REPT DBCHG messages due to manual command input.
- **DBALL** - specifies that the UID receives responses to its own commands, autonomous messages including REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.

h       **Dialog Mode (DMODE):**  
          DMODE = { MENU, COMMAND }  
  
                  **Default:** COMMAND  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies the dialog mode for the UID.

- **MENU** - indicates that the UID use the full dialog/prompt procedure.
- **COMMAND** - indicates that the dialog/prompt procedure is only entered through a question mark, and only the CTAG from the input command is echoed in the output message.

i       **User Type (UTYPE):**  
          UTYPE = { HUMAN, MACHINE }  
  
                  **Default:** MACHINE  
                  **Initial System Value:** None  
                  **Addressing Rules:** None

Specifies the User Type.

- **HUMAN** - specifies that the UID receives command verification warnings (refer the **Command Verification** appendix for more information).
- **MACHINE** - specifies that the UID does not receive any command verification warnings.

# ENT-SECU-USER

## Input Format

ENT-SECU-USER:[a]:b:[c]::d,,e:<f g h i j>,,,,,,,,;

## Input Parameters (Continued)

j      **Message Echo (ECHO):**  
         ECHO = { ON, OFF }

**Default:** OFF

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether REPT LOCL IN messages are received by the UID.

- **ON** - indicates REPT LOCL IN messages are received by the UID.
- **OFF** - indicates REPT LOCL IN messages are not received by the UID.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
k  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**k**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User is not a superuser
PICC	User does not have proper privilege code to execute this command
PIPW	Password or username is illegal
PIUI	UID already exists on system
PLNA	User is not logged in
SARB	User is trying to create a new UID when 512 UIDs already exist
SROF	Requested operation failed

# ENT-TSTPT-{EC1|T1|VT1}

## INPUT FORMAT

---

ENT-TSTPT- {EC1|T1|VT1} : [a] : b : [c] , , , , , , , ;

**Command Name:** Enter Testport {EC1|T1|VT1}  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually provisions ports as Testports. This command moves ports from the IDLE-REL state to the TPPV-REL state.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing.

Specifies the port to be provisioned as a Testport.

**(T1):** The DS1 Port can be on a DS1, DS3, or STS1 Interface Module or circuit pack.

**(EC1|VT1):** The port can be on an STS1 Interface Module or circuit pack.

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**d**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Input data not valid
IDRG	Input data out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SACC	Port is already cross-connected
SAIS	Port is an active testport
SCAT	Circuit is already connected
SNPV	Circuit pack not provisioned
SNVS	The Port State is not IDLE-REL

# EX-EQPT

## INPUT FORMAT

---

EX-EQPT: [a]: [b]: [c];

**Command Name:** Exercise Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command performs exercises on system circuit packs. At the present time, the only exercise is to test the LEDs, which is non-service affecting. All of the LEDs on each addressed circuit pack are lit, then turned off, and put back into normal operation. This test is performed sequentially for each addressed circuit pack.

**Notes:** The detailed LED test sequence is presented in the following table:

**DACS IV-2000 (256) Release 4.0 LED Test Sequence**

Order	Module
1	Switch Center Stage Circuit Packs
2	Switch Input/Output Circuit Packs
3	Redundant Controller
4	Synchronizer*
5	Redundant Controller Power
6	Auxiliary Power
7	Switch Power
8	Interface module (left to right, bottom to top)†

\* Synchronizer version 1 circuit packs do not contain LEDs. Therefore, these circuit packs are not included as part of the LED Test function. Version 2 circuit packs are included as part of the LED Test function.

† Interface Bay modules vary depending on the type of bay (DS1, STS1/DS3/DS1, DS3, or STS1/DS3 Interface Bay).

Pushing the LED TEST button on the status panel causes the LED test sequence to run. This is equivalent to using this command with ALL given for the LOC parameter (b).

If the DACS IV-2000 needs to terminate this test because of system activity, this command is terminated *quietly* (that is, no message is generated indicating the LED test was aborted).

The alarm cutoff (ACO) LED is not tested by this command. To test this LED, push the ACO button (which has the side affect of silencing any audible alarms that may be active).

### Input Parameters

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b       **Equipment Location (LOC):**  
          { MC, UNIT-{1-32}, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** Multiple equipment can be specified using full multiple addressing.

Specifies the equipment location to be exercised.

- **MC** - exercises circuit packs and subassembly LEDs in the following order: SWCS circuit packs, SWIO circuit packs, Redundant Controller Module circuit packs, Synchronizer Module circuit packs (version 2), Redundant Controller Power Module circuit packs, Auxiliary Power Module circuit packs, and Switch Power Module circuit packs.
- **UNIT** - tests circuit pack LEDs in the specified interface modules in ascending order (1 through 32, skipping interface modules not specified).
- **ALL** - exercises the circuit packs in the order given by the **mc** value, followed by the provisioned interface modules (UC has been restored) in ascending order.

- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## EX-EQPT

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

## INH-LPBK-**{EC1IT1IT3IVT1}**

### INPUT FORMAT

---

INH-LPBK-**{EC1|VT1}**:**[a]:b:[c]**;  
INH-LPBK-**{T1|T3}**:**[a]:b:[c]::[d]**;

**Command Name:** Inhibit Loopback **{EC1IT1IT3IVT1}**  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

**(EC1IVT1):** This command inhibits manual (EC1IVT1) near-end loopback operations on SMUX circuit packs (sets the INHEC1LPBK|INHVT1LPBK condition).

**(T1):** This command inhibits manual DS1 near-end loopback operations on DS1 interface, MUX, or SMUX circuit packs (sets the INHDS1LPBK condition). Also, a MUX circuit pack provisioned to support remote DS1 loopback operations is inhibited from requests for far-end DS1 loopback operations and from responding to DS1 loopback operations from the far-end (sets the INHDS1FLPBK condition).

**(T3):** This command inhibits manual DS3 near-end loopback operations on a MUX circuit pack (sets the INHDS3LPBK condition). Also, a MUX circuit pack provisioned to support remote DS3 loopback operations is inhibited from requests for far-end DS3 loopback operations and from responding to DS3 loopback operations from the far-end (sets the INHDS3FLPBK condition).

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## INH-LPBK-{EC1|T1|T3|VT1}

### Input Format

---

INH-LPBK-{EC1|VT1}:[a]:b:[c];  
INH-LPBK-{T1|T3}:[a]:b:[c]::[d];

### Input Parameters (Continued)

---

- b **Port (PORT):**  
**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
**(VT1):** VT1.5 Port { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing.

Specifies the port for the loopback operation.

**(T1):** Specifies the DS1 Port of the DS1 interface, MUX, or SMUX circuit pack, or all of the DS1 Ports associated with the specified interface module(s) or group(s).

**(T3):** Specifies the DS3 Port or all of the DS3 Ports associated with the MUX circuit packs within the given interface module(s).

**(EC1|VT1):** Specifies the (EC-1|VT1.5) Port of the SMUX circuit pack, or all of the (EC-1|VT1.5) Ports associated with the given interface module(s) or group(s).

- c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

```
INH-LPBK- {EC1|VT1}: [a]:b:[c];  
INH-LPBK- {T1|T3}: [a]:b:[c]::[d];
```

## Input Parameters (Continued)

---

d        **Loopback Control (LPBKCON):**  
          **(EC1IVT1):** { <not used> }  
          **(T1IT3):** { NEND, FEND, BOTH }

**Default:** NEND

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Loopback Control. This command is denied when this parameter is **FEND** or **BOTH** and the (DS1|DS3) Port is not associated with a MUX2 circuit pack provisioned for far-end (DS1|DS3) loopback operations. This command accepts the selected value when the loopback operation is active on the MUX circuit pack or requested to the far-end.

**(T1):** Specifies the DS1 loopback control on the DS1 interface, MUX, or SMUX circuit pack inhibited.

**(T3):** Specifies the DS3 loopback control on the MUX circuit pack being inhibited.

- **NEND** - indicates the (DS1|DS3) is inhibited from processing manual (DS1|DS3) loopback operations, and if the MUX2 circuit pack is provisioned for remote (DS1|DS3) loopback operations, this includes requests for (DS1|DS3) loopback operations to the far-end.
- **FEND** - indicates the MUX2 circuit pack provisioned for remote (DS1|DS3) loopback is inhibited from responding to (DS1|DS3) loopback operations from the far-end.
- **BOTH** - indicates both loopback controls are inhibited.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
e
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c     **Correlation Tag (CTAG):**  
       { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e     **Error Code (ERRCDE):**  
       { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDRG	Circuit pack out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution aborted due to error in implementation
SAIN	Loopbacks for the specified Port have already been inhibited
SNIS	MC is out of service
SNPV	Circuit pack is not provisioned
SNVS	Wrong remote multiplexer type or circuit pack
SNVS	Specified port is already looped back
SOSF	Circuit pack is bad
SROF	Error encountered in implementation (for example, database access failure)

## INH-MSG-{EC1|VT1}

### INPUT FORMAT

---

INH-MSG- {EC1 | VT1} : [a] : b : [c] : : [d] , [e] , [f] ;

**Command Name:** Inhibit Message {EC1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command inhibits threshold crossing alert messages for the port(s) specified. This command does not stop the data collection process, only the reporting of threshold crossing alert messages. Threshold crossing alert message reporting is enabled with the **ALW-MSG- {EC1 | VT1}** command. Initially, for all ports and all time periods, threshold crossing alert messages are allowed.

**Notes:** The **INH-MSG-EC1** command is allowed regardless of the Active Signal Type of the Port.

The **INH-MSG-VT1** command is denied with the error code IDNV if the Active Signal Type of the Port is EC1.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified. All of the ports specified must be on provisioned circuit packs, otherwise the command is denied.
- Specifies the port, or all of the ports associated with the specified interface modules or groups.

## INH-MSG-{EC1|VT1}

### Input Format

---

INH-MSG- {EC1|VT1} : [a] : b : [c] : : [d] , [e] , [f] ;

### Input Parameters (Continued)

---

- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- d**      **Notification Code (NTFCNCDE):**  
          { NA }
- Default:** NA  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies that all threshold crossing alert messages associated with the ports in specified in the **PORT** parameter (b) are inhibited.
- e**      **Condition Type (CTYPE):**  
          { ALL }
- Default:** ALL  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies that all threshold crossing alerts associated with the ports specified in the **PORT** parameter (b).
- f**      **Time Period (TMPER):**  
          { 15-MIN, 1-DAY, ALL }
- Default:** ALL  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies the accumulation Time Period for all monitored parameters for the ports specified in the **PORT** parameter (b).

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
g  
{ "<parsable text string>" }  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Active Signal Type of port is EC1 (for <b>INH-MSG-VT1</b> command)
IDRG	The range of ports specified is invalid
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	The port or range of ports specified must have at least one provisioned port
SROF	UC cannot be accessed

# INH-PMREPT-**{EC1|T1|T3|VT1}**

## INPUT FORMAT

---

INH-PMREPT-**{EC1|T1|T3|VT1}**:**[a]**:**b**:**[c]**;

**Command Name:** Inhibit Performance Monitoring Report **{EC1|T1|T3|VT1}**  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command inhibits scheduled performance-monitoring reports. This command does not stop the data collection process, only the reporting of the performance information accumulated. Once a report has been inhibited, the only way to access the data collected is with the **RTRV-PM-**{EC1|T1|T3|VT1}**** command. Reporting of performance data can be resumed with the **ALW-PMREPT-**{EC1|T1|T3|VT1}**** command.

**Notes:** This command inhibits **all** reports for ports specified in this command. A port can be inhibited even though no report is scheduled.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:**  
          **(EC1|VT1):** Multiple ports can be specified.  
          **(T1|T3):** Multiple ports can be specified using restrictive multiple addressing.  
  
          Specifies the port, or all of the ports associated with the specified interface modules or groups.

### Input Format

---

INH-PMREPT-**{EC1|T1|T3|VT1}** : **[a]** : **b** : **[c]** ;

### Input Parameters (Continued)

---

**c**      **Correlation Tag (CTAG):**  
          **{ <1–10 CTAG LEGAL CHARACTERS>, NOVAL }**

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDRG	The range of ports specified is not valid
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error
SARB	All resources are busy
SNPV	Interface module not provisioned
SNPV	All circuit packs in address range not provisioned
SNPV	Circuit pack is not a MUX1, MUX2, SWIF1, SWIF2, or SMUX

## INH-SW-EQPT

### INPUT FORMAT

---

INH-SW-EQPT: [a]:b:[c]:d,,,,,,,,;

**Command Name:** Inhibit Switch Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command inhibits automatic protection/unprotection switching between a working circuit pack and a protection circuit pack.

**Notes:** The warning message that the LED on the specified circuit pack is illuminated to indicate protection, is only issued when the **MANPID** parameter (w) of the **ED-NE** command is set to **CKTLED-ON** and the circuit pack is switched to protection.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { SWCS-{1-31}, SWIO-{1-32}, MUX-{1-32}-{1-31}, SMUX-{1-32}-{1-15},  
          SWIF-{1-32}-{1-8} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs can be specified using restrictive multiple addressing.

Specifies the type and location of the working circuit pack.

If a SWIF circuit pack is specified, it inhibits switching of the DS11F circuit packs it supports (even if these circuit packs are not explicitly inhibited). However, the DS11F circuit packs themselves are not inhibited, and revert to normal operations when the SWIF circuit pack is released from the inhibited state. Also, when a SWIF circuit pack has been inhibited, it prevents the associated DS11F circuit packs from switching as well, due to the architectural relationship between SWIF and DS11F circuit packs.

If a SWIO circuit pack has been inhibited, it prevents the associated CLKDR circuit pack (the one carrying service clocks for that SWIO) from being removed from or restored to service (depending on whether the SWIO is inhibited in the unprotected or protected state, respectively), due to the architectural relationship between SWIO and CLKDR circuit packs.

# INH-SW-EQPT

## Input Format

---

INH-SW-EQPT: [a] :b : [c] :d , , , , , , , ;

## Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Switch Direction (SWDIR):**  
          { PROTN, WKG }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the direction to which automatic switching is being inhibited. If **PROTN** is specified and the specified circuit pack is in the OOS-MTCE state (protected), or if **WKG** is specified and the circuit pack is in the ACT state (not protected), this command is denied.

- **PROTN** - indicates inhibit switching to protection.
- **WKG** - indicates inhibit switching to working.

## RESPONSES

---

When a command is entered with the General Telemetry Processor (GTP), the CTAG output parameter (c) field contains the string TABS and the SWDIR output parameter (d) is set to ALL. For example:

```
INH SW EQPT::MUX-10-1:TABS:ALL COMPLD
```

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
[ /* THE ALARM LED WILL REMAIN LIT ON ALL PROTECTED CIRCUIT PACKS */]
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
e
[ "<parsable text string>"]
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Invalid circuit pack or inhibit switch direction is specified
IDRG	Invalid range specified in command
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAIN	Specified circuit pack is already inhibited
SAPS	Specified circuit pack is already in protection state
SAWS	Specified circuit pack is already in working state
SNPV	Specified interface module or circuit pack is not provisioned

# INIT-REG-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

INIT-REG- {EC1|T1|T3|VT1} : [a] : b : [c] : : d, [e], f, , g, [h], [i] ;

**Command Name:** Initialize Register {EC1|T1|T3|VT1}

**Command Category:** Provisioning

**User Privilege Code (UCFC/UCAL):** PM3

**Abortable:** No

**REPT DBCHG Message:** Yes

## Purpose

---

This command initializes the accumulation registers that store performance monitoring data.

**Notes:** When a register is initialized, the DACS IV-2000 does not recalculate the daily total. Also, only current or history registers can be initialized.

- **Additional Notes for T1 and T3** - You can initialize any short interval register (current or within the last 24 hours) or **ALL** short interval registers. You can also initialize any daily register (current or within the last 7 days) or all daily registers.
- **Additional Notes for EC1 and VT1** - You can initialize any 15-minute register (current or within the last eight hours), or **ALL** 15-minute registers. Also you can initialize any daily register (current or previous) or all daily registers.

## Input Parameters

---

a      **Target ID (TID):**  
         { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

INIT-REG- {EC1|T1|T3|VT1} : [a] : b : [c] : : d, [e], f, , g, [h], [i];

## Input Parameters (Continued)

---

**b Port (PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }

**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(EC1|T3|VT1):** Multiple ports can be specified.

**(T1):** Multiple ports can be specified using restrictive multiple addressing.

Only those ports on provisioned circuit packs are affected. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

Specifies the port, or all of the ports associated with the specified interface module for which performance registers are to be initialized. If some of the ports' registers specified cannot be initialized (but at least one can), this command is completed with the termination report code of PRTL instead of COMPLD.

**c Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

**d Monitored Parameter (MONPARM):**

{ <see below>, ALL }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the particular monitored parameter for which performance registers are to be initialized. A list of monitored parameters, along with their definitions, is given in the **Monitored Parameters** appendix. If more than one port is specified in the **PORT** parameter (b), **ALL** is not a valid value for this parameter.

## INIT-REG-{EC1|T1|T3|VT1}

### Input Format

---

INIT-REG-{EC1|T1|T3|VT1}: [a]:b:[c]::d, [e], f, , g, [h], [i];

### Input Parameters (Continued)

---

e **Monitored Value (MONVAL):**

(EC1): { 0-4479000 }

(T1): { 0-134217728 }

(T3): { 0-811987200 }

(VT1): { 0-1048575 }

**Default:** 0

**Initial System Value:** None

**Addressing Rules:** None

Specifies the value to which the register identified by the **MONPARM** parameter (d) is to be initialized. If the **MONPARM** parameter is set to **ALL**, this parameter must be set to 0. Some parameters can have a maximum value less than that specified above. In the event that the specified monitored value exceeds the register maximum for the given parameter, this command is denied with the error code **IDNC**.

f **Location (LOCN):**

(EC1|T1|T3): { NEND, FEND, ALL }

(VT1): { NEND }

**Default:** VT1: NEND; None, for all others

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location where the storage register is to be initialized.

- **NEND** - indicates initialization at the near-end.
- **FEND** - indicates initialization at the far-end.
- **ALL** - indicates initialization for near- and far-end.

g **Time Period (TMPER):**

(EC1|VT1): { 15-MIN, 1-DAY }

(T1|T3): { 15-MIN, 1-HR, 1-DAY }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Accumulation Time Period for the specified Monitored Parameter.

(**T1|T3**): If the value entered for this parameter does not agree with the provisioned value of the Accumulation Period, this command is denied. The Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

## Input Format

---

INIT-REG- {EC1|T1|T3|VT1}: [a]:b:[c]::d, [e], f, , g, [h], [i];

## Input Parameters (Continued)

---

**h**        **Monitored Date (MONDAT):**  
          { {1-12}-{1-31}, CURVAL, NOVAL, ALL }

**Default:** CURVAL, the current date

**Initial System Value:** None

**Addressing Rules:** None

Specifies the date of the beginning of the storage register period specified in the **TMPER** parameter (g). The format for this parameter is MM-DD, where MM (month) ranges from 1 to 12 and DD (day) ranges from 1 to 31. If ALL is specified for this parameter, all of the daily registers are initialized.

**(EC1IVT1):** If the value of the **TMPER** parameter (g) is 15-MIN, this parameter can **not** be ALL. If **TMPER** is 15-MIN and the **MONTM** parameter (i) is ALL, this parameter must be NOVAL.

**(T1IT3):** If the value of the **TMPER** parameter (g) is 15-MIN or 1-HR, this parameter must **not** be ALL. If **TMPER** is 15-MIN or 1-HR and the **MONTM** parameter (i) is ALL, this parameter must be NOVAL.

**i**        **Monitored Time (MONTM):**  
          { {0-23}-{0,15,30,45}, CURVAL, NOVAL, ALL }

**Default:** CURVAL, the beginning time of the current interval

**Initial System Value:** None

**Addressing Rules:** None

Specifies the beginning time of the Storage Register Period specified in the **TMPER** parameter (g). If the value of the **TMPER** parameter is 1-DAY, this parameter must be NOVAL. If ALL is specified for this parameter, all of the Short Accumulation Period registers are initialized. If the value of the **MONDAT** parameter (h) is ALL, this parameter must be NOVAL.

**(EC1IVT1):** The combination of the **MONDAT** parameter (h) and this parameter must specify a time as follows: if the **TMPER** parameter (g) is 15-MIN, these parameters must point to the current 15-MIN interval or to a 15-MIN interval within the past eight hours. If the **TMPER** parameter is 1-DAY, these parameters must point to the current 1-DAY interval or to the previous 1-DAY interval.

## INIT-REG-{EC1IT1T3IVT1}

### RESPONSES

---

#### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

If some of the ports' registers specified in the **LOC** parameter (b) cannot be initialized (but at least one can), this command completes with the termination report code of **PRTL** instead of **COMPLD**.

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
j
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**j**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNC	More than one port is specified and <b>ALL</b> is given as the <b>MONPARM</b> parameter (d) value
IDNV	More than one DS1 Port is given and <b>ALL</b> is specified for the <b>MONPARM</b> parameter (d)
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped abruptly
SARB	All resources are busy
SNDA	No data available
SNIS	Port not in service
SNPV	The port or range of ports specified must have at least one provisioned port
SNVS	Port not in valid state
SROF	UC can not be accessed

## INIT-SYS

### INPUT FORMAT

---

`INIT-SYS: [a] : [b] : [c] : : d;`

**Command Name:** Initialize System  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command initializes the DACS IV-2000.

**Notes:** Circuit packs that are autolocked are released by the system after an `INIT-SYS: : : : : 9` or after pushing the RESET button. It is recommended that protected interface circuit packs be manually unprotected before resetting, if possible.

Whenever the system is reset, the boot firmware message prints restart messages on the Snider links if the baud rate of the terminals connected to these links are set properly. The boot messages are not printed when the main controller (MC) is restored via the `RST-EQPT` command.

`INIT-SYS` is executed after all commands of equal priority entered before it and all commands of higher priority have been executed.

Whenever a system reset occurs due to an `INIT-SYS: : : : : 5`, `INIT-SYS: : : : : 9`, no audible/visual alarm LED lights on the status panel.

When you attempt to boot an empty database from PRI by doing a manual reset, a free-format warning message is displayed as follows:

```
/* DATABASE WITH NO UNITS PROVISIONED - BRINGING MC TO OOS-MCOND */
```

If a TID mismatch condition is detected for the non-selected disk during a hard reset from PRI or SEC (`INIT-SYS: : : : : 9`), a free-format warning message is displayed as follows:

```
/* WARNING: TID MISMATCH! USE RTRV-SYSID TO CHECK TID VALUES */
```

If a TID mismatch condition is detected for the selected disk during a hard reset from PRI or SEC (`INIT-SYS: : : : : 9`), a free-format warning message is displayed as follows:

```
/* BOOT DEVICE FAILED MEDIA VALIDATION */
```

## INIT-SYS

When executing the `INIT-SYS:::5` command, the Synchronizer goes into the hold-over mode while diagnostics on the DS1TX circuit packs are performed. After diagnostics are completed, the Synchronizer locks onto the first reference which it declares as good (timing reference switchover occurs if the first reference which becomes good is not the last active reference stored in the database. The following four `REPT SW` messages (associated switch information follows each message) occur within 30 seconds (no service hits occur):

```
REPT SW (SYNCRN, SYNCRN, HLDVVR)
```

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Equipment Location (LOC):**  
          { MC }
- Default:** MC  
**Initial System Value:** None  
**Addressing Rules:** None
- Specifies the type of equipment to be initialized and its location.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- d       **Initialization Level (INIT):**  
          { 0, 5, 9, TEST, BOOT, RESET }
- Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None
- Specifies the initialization level. For values of 0 or 5 (**TEST** or **BOOT**), the main controller (MC) must be the IS state. For the value of 9 (**RESET**), the MC can be in any state.
- 0 or **TEST** - is a test. This value returns the `COMPLD` message.
  - 5 or **BOOT** - is a warm restart. This value reboots the MC database.
  - 9 or **RESET** - is a cold restart. This value executes the full power-up sequence (for the MC, this is equivalent to operating the `RESET` switch/`RESET` button).

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M   c COMPLD  
;
```

By the very nature of this command, a normal response can not be issued after a cold restart of the main controller (MC). Therefore, an attempt is made to send the normal response immediately before the reset is begun.

This command's output response and those from previous commands can be lost upon execution of this command. However, although their responses can be lost, the commands are executed if entered before initialization.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M   c DENY  
e  
{ "<parsable text string>"  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IIISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNIS	Main Controller (MC) is not in service and the <b>INIT</b> parameter (d) is 0, 5, <b>TEST</b> , or <b>BOOT</b>

# LGN-USER

## INPUT FORMAT

---

LGN-USER: [a]:b:[c]::d;

**Command Name:** Login User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** M1,P1,PM1,S1,T1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command logs a user into the system through an X.25 link (CILINK 1-5, 1-6, 2-5, or 2-6).

**Notes:** The same user can be logged into more than one link and/or more than one virtual circuit at the same time.

For Snider links, the user can log in only via the `login:` prompt as described in the section titled **Logging In** of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

This command does not follow the normal system rules for single threading. **LGN-USER** is executed as soon as it is received (that is, ahead of any commands that were entered before it).

Valid passwords consist of at least two nonalphanumeric characters with at least one character being a special legal character (# % +). The first character of a password must be a letter.

### Input Parameters

---

a      **Target ID (TID):**  
        { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b      **User ID (UID):**  
        { <1-10 UID LEGAL CHARACTERS> }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the user identification (UID).

### Input Format

LGN-USER: [a]:b:[c]::d;

### Input Parameters (Continued)

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Password (PSWD):**  
          { <6-8 PSWD LEGAL CHARACTERS> }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the password.

## LGN-USER

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* Unauthorized access, use, or modification */
   /* of the DACS IV-2000 (256) system is a criminal */
   /* violation of Federal and State laws */
   /* SWID */
   "e"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
[   "<parsable text string>"]
;
```

#### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e**        **Software ID (SWID):**  
          { 4-00-{1-99}-r }

Specifies the software version information. The first component of this parameter specifies the release (4), the second component specifies the point-release (00), the third component specifies the issue of the release ({1-99}), and the last component (r) specifies the load of the release [r specifies a DACS IV-2000 (256) software load]. The first, second, and last components are fixed values and the third component is a value within the given range.

## LGT-USER

### INPUT FORMAT

---

LGT-USER: [a] : [b] : [c] ;

**Command Name:** Logout User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** M1,P1,PM1,S1,T1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command logs you out of the system. After this command has been executed no other input commands are accepted on a link (or virtual circuit for X.25 links) until another login has been completed.

**Notes:** If you are logged out through the LGT-USER command, any active test sessions associated with your UID and link are automatically released if the link association parameter has been set to Y (yes) in the CONN-TACC- {EC1 | T1 | VT1}, CHG-TACC- {EC1 | T1 | VT1}, or OPR-LPBK- {EC1 | T1 | T3 | VT1} command. A REPT DBCHG message is generated for each test session that is released in this manner.

For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.

This command does not follow the normal system rules for single threading. LGT-USER is executed as soon as it is received (that is, ahead of any commands that were entered before it).

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL (the UID logged onto the link from which this command is being input)  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the user identification (UID). Only a user with a UCFC/UCAL of S5 can specify a UID other than their own.

## LGT-USER

### Input Format

---

LGT-USER: [a] : [b] : [c] ;

### Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1–10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	User does not exist in the database
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User is not logged in
PIOC	User is not a superuser
PLNA	User is not logged in
SROF	Requested operation failed

# OPR-ACO-ALL

## INPUT FORMAT

---

OPR-ACO-ALL: [a] : : [b] ;

**Command Name:** Operate Alarm Cut Off All  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command cuts off audible alarms. This command does not clear other alarm indicators, and does not disable future alarms from sounding audibles.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M b COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M b DENY  
c  
{ "<parsable text string>"  
;
```

### Output Parameters

---

b        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

c        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

# OPR-LPBK-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

OPR-LPBK-EC1: [a]:b:[c]::e:[f];  
OPR-LPBK-T1: [a]:b:[c]::[d]:e:[f];  
OPR-LPBK-T3: [a]:b:[c]::[d]::[f];  
OPR-LPBK-VT1: [a]:b:[c]:::[e]:[f];

**Command Name:** Operate Loopback {EC1|T1|T3|VT1}

**Command Category:** Maintenance

**User Privilege Code (UCFC/UCAL):** M3

**Abortable:** No

**REPT DBCHG Message:** Yes

## Purpose

---

**(EC1|VT1):** This command operates a loopback on a specified (EC-1|VT1.5) Port or range of (EC-1|VT1.5) Ports, either at the interface or through the switch fabric of an SMUX circuit pack within the system.

**(T1):** This command operates a loopback on a specified DS1 Port or range of DS1 Ports, either towards the facility, towards the switch, or through the switch fabric of a DS1 interface, MUX, or SMUX circuit pack within the system. Also, this command is used to request a far-end DS1 loopback associated with a MUX2 circuit pack provisioned to support remote DS1 loopback operations.

**(T3):** This command operates a DS3 loopback on a specified DS3 Port or range of DS3 Ports (at the facility level) on a MUX circuit pack within the system. Also, this command is used to request a far-end DS3 loopback associated with MUX2 circuit packs provisioned to support remote DS3 loopback operations.

**Notes:** This command can disrupt cross-connections associated with the ports.

This command is denied if the specified port is under protection.

Once the loopback is set up, no cross-connect functions are allowed on that port until the loopback is released.

If test access is active on a port, any subsequent loopback command on that port is denied with the error code *SNVS* until the test access is taken down. However, if the port is only a testport without any active test access on it, loopback is allowed.

This command is denied when circuit packs are failed and not protected.

All loopback connections that are associated with your link are released when your login session is terminated if all corresponding UCs are in the IS state. After a UC has been manually or autonomously removed, only internal, line, and near-end loopbacks within that unit will be automatically released when your login session is terminated. Terminal loopbacks will remain until that UC is restored to the IS state.

Loopbacks are not auto-released unless the log-off occurs at the link from which the loopback was established and by the user who established the loopback (that is, the Link ID and User ID of the terminated login session must match the existing loopback Link ID and User ID).

If a loopback is active on a port, then any subsequent test access command on that port is denied (*SNVS*) unless the loopback is a far-end LPBKM.

■ **Additional Notes for T1**

If the MUX circuit pack has an active DS1 loopback, the DS3 loopback is denied.

DS3 Terminal Loopback is performed by looping back all of the DS1 Ports associated with one or more DS3 Ports.

If the DS1 Port(s) specified is a tributary(s) of a MUX2 circuit pack and the *LOCN* parameter (d) is *FEND*, the *LPBK-STATE* parameter (e) must be *LPBKM*. Otherwise, this command is denied.

Multiple requests to operate far-end DS1 loopback(s) from a MUX2 circuit pack provisioned to support requests for far-end DS1 loopback operations are permitted, as long as the remote multiplex communication protocol (see the *RTRV-T3* command) is not set to *SBIT*.

If a MUX2 circuit pack is provisioned to support *SBIT*, *TR9*, or *FEAC* signaling and has been provisioned to transmit the DS3 Idle Signal, the system denies requests to operate far-end DS1 loopbacks with the error code *SNVS*.

This command is denied if the DS1 Port(s) specified is associated with a DS1, SMUX, or MUX1 circuit pack and the *LOCN* parameter (d) is *FEND*.

Test access is not allowed on a DS1 Port that is being looped back with the *OPR-LPBK-T1* command. Test access is not allowed on a DS1 Port that is cross-connected to another Port that has been looped back.

**WARNING:** Having more than 28 far-end loopbacks when the ports are provisioned for *SBIT* communication and Link Association is set to *Y* (yes) degrades system performance (that is, slows down logout and reset times) to excessive protocol overhead.

When using the remote multiplexer communication feature with the *SBIT* protocol to operate loopbacks between the DACS IV-2000 and a DDM-1000 system, the following items must be noted:

- A one-minute to two-minute delay occurs between the *OPR-LPBK-T1* command completing (for a single loopback) and the actual loopback taking place at the remote DDM-1000 system. During this time delay the DACS IV-2000 denies any other remote request with the error code *SABT*. If, however, the DS1 interface group is requested, the loopback completes immediately.
- When using the *SBIT* protocol for remote operations, the range option is invalid. Two choices are available: either DS1 Ports associated with one or all of the DS1 interface groups can be looped back.

The above information also applies to the *RLS-LPBK-T1* command.

## OPR-LPBK-{EC1IT1IT3IVT1}

### ■ Additional Notes for T3

This command can only be used to perform temporary loopbacks for testing and similar functions. To set up a provisioned DS3 terminal loopback, use a one-way DS1 cross-connect over the range of all 28 DS1s within the DS3, with the FROM and TO Ports set to the same value (see the **ENT-CRS-T1** or **ENT-CONF-T1** command).

This command is denied when the MUX circuit pack is failed.

Multiple requests to operate a far-end DS3 loopback from a MUX2 circuit pack provisioned to support requests for DS3 loopback operations are permitted.

This command with the **LOCN** parameter (d) set to **FEND** only applies when the remote multiplexer communication protocol (see the **RTRV-T3** command) is set to **FEAC**.

When using this command to perform far-end loopback operations, a response of **COMPLD** signifies that the request itself (not the action requested at the far-end) has completed. Under TR-TSY-000009 protocol, confirmation of the loopback operation requested is not sent back to the near-end; verification is performed through test equipment.

It is not possible to retrieve all active far-end loopbacks. If the error code **SABT** is received, investigate to determine whether the far-end has initiated a loopback request for the port returning the **SABT** error code. Request the far-end to release its loopback and try the **OPR-LBPK-T3** command again.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual (AT&T 365-340-700)* for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

          Specifies the Target ID of the DACS IV-2000.

## Input Format

---

OPR-LPBK-EC1: [a]:b:[c]:::e:[f];  
OPR-LPBK-T1: [a]:b:[c]::[d]:e:[f];  
OPR-LPBK-T3: [a]:b:[c]::[d]::[f];  
OPR-LPBK-VT1: [a]:b:[c]:::e:[f];

## Input Parameters (Continued)

---

- b**      **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:**  
          **(EC1):** Multiple EC-1 Ports within the same STS1 Interface Module can be specified.  
          **(T1):** Multiple DS1 Ports can be specified using restrictive multiple addressing. If all of the DS1 Ports associated with a DS3 Port are specified, this causes a Terminal Loopback of the DS3 Port.  
          **(T3IVT1):** Multiple ports can be specified using restrictive multiple addressing.  
  
          Specifies the port or all of the ports associated with the specified circuit pack(s) or interface module(s) or group(s).
- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.
- d**      **Location (LOCN):**  
          **(EC1IVT1):** { <not used> }  
          **(T1IT3):** { NEND, FEND }  
  
          **Default:** NEND  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the location to operate the (DS1IDS3) loopback. The value **FEND** is only valid for (DS1IDS3) ports in a MUX2 circuit pack.
- **NEND** - indicates a near-end (DS1IDS3) loopback. For a DS1 loopback, the loopback is in a DS1 interface, MUX, or SMUX circuit pack. For a DS3 loopback, the loopback is in a MUX circuit pack.
  - **FEND** - indicates a request to operate a far-end (DS1IDS3) loopback.

## OPR-LPBK-{EC1IT1T3IVT1}

### Input Format

---

OPR-LPBK-EC1:[a]:b:[c]::e:[f];  
OPR-LPBK-T1:[a]:b:[c]::[d]:e:[f];  
OPR-LPBK-T3:[a]:b:[c]::[d]::[f];  
OPR-LPBK-VT1:[a]:b:[c]::[e]:[f];

### Input Parameters (Continued)

---

e        **Loopback State (LPBK-STATE):**  
          **(EC1):** { LPBKL, LPBKT }  
          **(T1):** { LPBKL, LPBKT, LPBKI, LPBKM }  
          **(T3):** { <not used> }  
          **(VT1):** { LPBKT }

**Default: (EC1IT1):** None **(VT1):** LPBKT  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the state of loopback desired.

**(T1):** For a DS1 Port in an SMUX circuit pack, the only applicable loopback state is **LPBKT**.

- **LPBKL** - is a Line Loopback, which loops the signal from the Input Port to the Output Port at the interface circuit pack. For DS1 loopbacks, bipolar violations are preserved. For STS-1 loopbacks, the loopback is operated without modifying any bits in the bitstream, and without correcting line coding errors or parity errors.
- **LPBKT** - is a Terminal Loopback, which loops the signal from the Input Port to the Output Port in the switch. For DS1 loopbacks, bipolar violations are removed. For STS-1 loopbacks, transport overhead bits are modified to perform the loopback. For VT1.5 loopbacks, virtual tributary (VT) pointer bits are modified to perform the loopback.
- **LPBKI** - is an Internal Loopback, which loops the signal from the Output Port to the Input Port at the interface.
- **LPBKM** - is DS1 Tributary Loopback within a MUX2 circuit pack, specific for a near-end MUX2 circuit pack or requested to a far-end DS3 facility.

## Input Format

---

OPR-LPBK-EC1: [a]:b:[c]::e:[f];  
OPR-LPBK-T1: [a]:b:[c]::[d]:e:[f];  
OPR-LPBK-T3: [a]:b:[c]::[d]::[f];  
OPR-LPBK-VT1: [a]:b:[c]:::[e]:[f];

## Input Parameters (Continued)

---

f            **Link Association (LASSO):**  
              { Y, N }

**Default:** Y

**Initial System Value:** None

**Addressing Rules:** None

Specifies whether (Y or yes) or not (N or no) the loopback is to be associated with the link on which the command was given. When associated with the link, the loopback(s) is autonomously released (if permitted by the system's current state) if your login session is terminated.

**(EC1IVT1):** This parameter applies to near-end loopbacks only.

**(T1):** This parameter includes DS1 loopback(s) on a near-end DS1 interface or MUX circuit pack and requests to the far-end.

**(T3):** This includes DS3 loopback(s) on a near-end MUX circuit pack and requests to the far-end.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
g
[   "<parsable text string>"
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
           { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
           { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	Circuit pack out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have the proper privilege code to execute this command
PLNA	User is not logged in
SABT	A far-end loopback may be present
SABT	Execution aborted due to error in implementation
SAIN	Loopback Port is inhibited
SAOP	Requested loopback already operated
SARB	Specified path not available in the switch
SEIP	Specified entity is protected
SNIS	MC/UC out of service
SNPV	Loopback Port has wrong circuit pack type
SNPV	Wrong remote multiplexer type or wrong location

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SNVS	Circuit pack not provisioned
SNVS	Loopback Port is a testport
SNVS	Extended loopback Port is a QRSS Port
SOSF	Circuit pack is bad
SROF	Error encountered in implementation and illegal database access error

# RLS-LPBK-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

RLS-LPBK- {EC1|VT1} : [a] : b : [c] , , , , , , , ;  
RLS-LPBK- {T1|T3} : [a] : b : [c] : : [d] , , , , , , , ;

**Command Name:** Release Loopback {EC1|T1|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

**(EC1|VT1):** This command releases a loopback on a specified (EC-1|VT1.5) Port or range of (EC-1|VT1.5) Ports on a SMUX circuit pack within the system.

**(T1):** This command releases a loopback on a specified DS1 Port or range of DS1 Ports on a DS1 or SMUX circuit pack within the system. A release of a DS1 loopback for a MUX circuit pack that supports this loopbacks is permitted. Also, this command is used to request a release of a far-end DS1 loopback associated with a MUX2 circuit pack provisioned to support remote DS1 loopback operations.

**(T3):** This command releases a DS3 loopback on a DS3 Port, or a range of DS3 Ports on a MUX circuit pack within the system. Also, this command is used to request a release of a far-end DS3 loopback associated with a MUX2 circuit pack provisioned to support remote DS3 loopback operations.

**Notes:** Any cross-connections associated with the ports that were disrupted by the loopback are restored.

This command is denied when circuit packs are failed and not protected.

#### ■ Additional Notes for T1

A DS3 terminal loopback is released by releasing loopbacks on all of the DS1 Ports associated with one or more DS3 Ports.

Multiple requests to release a far-end DS1 loopback for a MUX2 circuit pack provisioned to support requests for far-end DS1 loopback operations are permitted.

A DS1 loopback established at the far-end (remote multiplexers using TR9 protocol) can only be released from the source (that is, the far-end equipment). The DACS IV-2000 denies the **RLS-LPBK-T1** command with the error code SABL if an attempt is made to release a loopback established at the far end.

#### ■ Additional Notes for T3

This command is denied in certain cases when the MUX circuit pack is failed.

When using this command to perform far-end loopback operations, a response of **COMPLD** signifies that the request itself (not the action requested at the far-end) has completed. Under TR-TSY-000009 protocol, confirmation of the loopback operation requested is not sent back to the near-end (verification is done through test equipment).

### Input Parameters

- a     **Target ID (TID):**  
      { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b     **Port (PORT):**  
      **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
      **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
      **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
      **VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:**  
**(EC1):** Multiple EC-1 Ports within the same STS1 Interface Module can be specified.  
**(T1):** Multiple DS1 Ports can be specified using restrictive multiple addressing. If all of the DS1 Ports associated with a DS3 Port are specified, this causes a terminal loopback release of the DS3 Port.  
**(T3|VT1):** Multiple ports can be specified using restrictive multiple addressing.

Specifies the loopbacked port or all of the loopbacked ports associated with the given interface circuit pack, module, or group. Use **DS1GRP- {1-32} - {1-31}** and **VT1GRP- {1-32} - {1-15}** only if all the associated ports within a group are loopbacked. Use **UNIT- {1-32}** only if all the associated ports within an unit are loopbacked.

- c     **Correlation Tag (CTAG):**  
      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d     **Location (LOCN):**  
      **(EC1|VT1):** { <not used> }  
      **(T1|T3):** { NEND, FEND }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location to release the (DS1|DS3) loopback. This command is denied if the (DS1|DS3) Port(s) specified is not associated with a MUX2 circuit pack and this parameter is **FEND**.

- **NEND** - indicates a request to release a near-end loopback. For DS1 loopbacks, the loopback can be in a DS1 interfac, MUX, or SMUX circuit pack. For DS3 loopbacks, the loopback can be in a MUX circuit pack.
- **FEND** - indicates a request to release a far-end loopback.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
e
[  "<parsable text string>"
;
```

### Output Parameters

---

c     **Correlation Tag (CTAG):**  
      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e     **Error Code (ERRCDE):**  
      { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	Circuit pack is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution aborted due to error in implementation
SARB	Specified path not available in the switch
SARL	Loopback already released
SNIS	MC/UC is out of service
SNPV	Loopback release port has wrong location
SNPV	Wrong circuit pack or wrong remote multiplexer type
SNPV	Circuit pack not provisioned
SNVS	Near-end DS3 was provisioned as having idle signal
SOSF	Circuit pack is bad
SROF	Command implementation encountered error is database access error

## RLS-TSTPT-{EC1|T1|VT1}

### INPUT FORMAT

---

RLS-TSTPT-{EC1|T1|VT1}: [a]:b:[c];

**Command Name:** Release Testport {EC1|T1|VT1}  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually deprovisions Testports. This command moves ports from the TPPV-REL state to the IDLE-REL state.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing.
- Specifies the Testport to be moved to the IDLE-REL state from the TPPV-REL state. The (EC-1|VT1.5) Port can be on an SMUX circuit pack. The DS1 Port can be on a DS1 interface, MUX, or SMUX circuit pack.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data not valid
IDRG	Input data out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SACC	Port is already cross-connected
SAIS	Port is an active testport
SCAT	E-End or F-End port is already under test
SNPV	Circuit pack not provisioned
SNPV	Performance monitoring function is active on PMGR
SNVS	The port state is not TPPV-REL

## RMV-EQPT

### INPUT FORMAT

---

RMV-EQPT: [a]:b:[c],,,,,,;

**Command Name:** Remove Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command removes equipment from service.

**Notes:** Most system functions are not allowed when the main controller (MC) is not in service. Certain functions, however, either can be performed with the MC out of service, or require the MC to be out of service to be performed. These functions are described in the section titled **Allowable Commands for Various Main Controller States** in Chapter 1, and in the individual command listings.

If only one PRI is restored, the **RMV-EQPT: :PRI** command can only be given if the MC is in the OOS-MCOND state.

If a UC is in the OOS-FLT state, during a frame reset, the system tries to restore the UC as if the **RST-EQPT: :UC** command had been issued on that Unit Controller. In order to prevent the UC from being auto-restored, a **RMV-EQPT: :UC** can be used which moves that UC from the OOS-FLT state to the OOS-MTCE state, in which case it remains OOS-MTCE across the system reset. System reset refers to one of the following conditions:

- The hardware reset button has been pressed.
- An **INIT-SYS: : : : 5** command has been issued.
- An **INIT-SYS: : : : 9** command has been issued.
- The system is performing a power on restart.
- The system is performing a processor restart.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## RMV-EQPT

### Input Format

---

RMV-EQPT: [a]:b:[c],,,,,,;

### Input Parameters (Continued)

---

- b        **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, SEC, UC-{1-32}, DS3PM-{1-32}, SYNC-{0,1},  
          TX-{0,1} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple equipment cannot be specified.

Specifies the type of equipment to remove and its location.

Attempts to remove a control complex (cc- {0, 1}) when it is in the ACT state are denied.

If you enter **sync** for this parameter, all other in-service circuit packs in the equipment hierarchy are moved from the IS state to OOS-MTCE state.

Attempts to remove the active SYNC are denied if the system is equipped with CLKGN3 circuit packs and the other SYNC is not in service.

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IITA	Invalid TID
PICC	User does not have the proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution stopped due to error in implementation
SAOS	Equipment is already out of service
SEIP	Request to remove UC denied due to an interface circuit pack currently under protection
SNPV	UC is not provisioned
SNVS	Attempt to remove the on-line CC or only in-service PRI
SROF	Requested operation failed

# RMV-LINK

## INPUT FORMAT

---

RMV-LINK: [a] :b: [c] , , , , , , ;

**Command Name:** Remove Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command removes an administrative or data link from service. If you are logged on to the link specified, or if the link has already been removed, the command is denied.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Use single addressing.

Specifies the administrative or data link to be removed.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data not valid
IITA	Invalid Target Identifier
PICC	User does not have the proper privilege code to execute this command
PLNA	User is not logged in
SAOS	CILINK already out of service
SNOS	Someone is logged on or you are trying to remove your own link
SROF	Requested operation failed

# RST-EQPT

## INPUT FORMAT

---

RST-EQPT: [a] : b : [c] : : [d] : [e] : [f] ;

**Command Name:** Restore Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command restores equipment to service.

**Notes:** Most system functions are not allowed when the main controller (MC) is not in service. Certain functions, however, either can be performed with the MC out of service, or require the MC to be out of service to be performed. These functions are described in the section titled **Allowable Commands for Various Main Controller States** in Chapter 1, and in the individual command listings.

No commands are accepted between the time that a **RST-EQPT : : MC ;** is issued and the time it completes.

If the MC is restored from the SEC, the MC is left in the OOS-MCOND state.

**WARNING:** The MC is rebooted by **RST-EQPT : : MC**, but not the ECI circuit packs. To restore from PRI (or SEC) the PRI (or SEC) must be in place and must contain a copy of the same software release that is currently running in the frame. This command **must not** be used as part of a software upgrade procedure.

For the MC, this command can be given with the MC in the OOS state. However, if the **CPY-MEM** command is used while the MC is in the OOS-MCOND state, you must use the **INIT-SYS : : : : 9 ;** command or a hard reset to bring the MC back to service.

If a TID mismatch condition is detected during a restore from PRI or SEC, then a free-format warning message is displayed as follows:

```
/* *** BOOT DEVICE FAILED MEDIA VALIDATION *** */
```

When the MC is restored to service, all protection switch autolocks are released.

The **RST-EQPT** command can appear in the **REPT DBCHG** message, with the exception of **RST-EQPT : : MC**.

Executing the **RST-EQPT** command with the **MODE** parameter (f) set to **NORM** and an empty database causes the MC to be placed in the OOS-MCOND state. Refer to the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701), section titled **Memory Integrity Defensiveness Capabilities** in Chapter 6.

The **RST-EQPT** command can be used to restore the standby SYNC side in the event that the cross-couple between the active and standby DPLL has failed. However, the **FRCD** option has to be used for the **MODE** parameter (f).

### Input Parameters

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, UC-{1-32}, DS3PM-{1-32},  
          SYNC-{0,1}, TX-{0,1} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple equipment cannot be specified.
- Specifies the type of equipment to restore and its location.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- d       **Memory Type (MEMORY\_TYPE):**  
          { PRI, SEC, NOVAL }
- Default:** PRI (when restoring the MC) or NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the memory to use when restoring the MC. If the **LOC** parameter (b) is not **MC**, this parameter must be **NOVAL**.
- **PRI** - indicates the primary memory is used.
  - **SEC** - indicates the secondary memory is used.
- e       **MC Equipment Location (MCLOC):**  
          { CC-{0,1}, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the control complex (CC) to be used when restoring the MC.

## RST-EQPT

### Input Format

---

RST-EQPT:[a]:b:[c]::[d]:[e]:[f];

### Input Parameters (Continued)

---

f       **Mode (MODE):**  
          { NORM, FRCD, NOVAL }

**Default:** NORM (when restoring the MC) or NOVAL

**Initial System Value:** None

**Addressing Rules:** None

If the LOC parameter (b) is **MC**, this parameter specifies whether the system loads an empty database into the DACS IV-2000 hardware; the value **FRCD** is only valid when the **MEMORY\_TYPE** parameter (d) is **PRI**. If the LOC parameter is **SYNC**-{0,1}, the value **FRCD** is to be used only in the event that the standby SYNC side is to be restored but the cross-couple between the active and standby DPLL has failed. If the LOC parameter is not **MC** or the standby SYNC side, this parameter must be **NOVAL**.

- **NORM** - specifies (when the LOC parameter [b] is **MC**) that the system does not load an empty database into the DACS IV-2000 hardware.
- **FRCD** - specifies (when the LOC parameter [b] is **MC**) that the system boots an empty database into the DACS IV-2000 hardware or specifies (when the LOC parameter is the standby SYNC side) that the standby SYNC is restored even if the cross-couple between the active and standby DPLL has failed.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
    h
[   "<parsable text string>"]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**h**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
EHNS	Equipment hierarchy not satisfied
ENEQ	The SEC drive is not plugged in (for RST-EQPT : : SEC)
ENMD	The SEC cartridge is not present (for RST-EQPT : : SEC)
ENRE	Equipment not recognized
IDNV	Input data is not valid
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have prpoer privilege code to execute this command
PLNA	User is not logged in
SABT	Execution aborted due to error in implementation
SAIS	Equipment is in service
SARB	Pre-stored map being computed
SCCF	Secondary cartridge checksum failure
SMVF	Media validation failed
SNPV	Equipment is not provisioned
SNVS	Equipment is not in a valid state
SOSF	Specified circuit pack or associated equipment is failed, MC diagnostics failed, or failed to turn off power circuit pack
SROF	Bad UC circuit pack, wrong J-Cable connected to the interface module, failed to mount the PRI/SEC, or bad target device
SSTP	Execution stopped gracefully before completion

# RST-LINK

## INPUT FORMAT

---

RST-LINK: [a]:b:[c],,,,,,,,,;

**Command Name:** Restore Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command restores an administrative or data link to service.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b       **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Use single addressing.  
  
          Specifies the administrative or data link to be restored.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data is not valid
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAIS	CILINK is already in service
SNVS	ECl circuit pack is not in service
SOSF	Cannot restore CILINK (protocol error)
SROF	Requested operation failed

# RTRV-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

RTRV-{EC1|VT1}: [a]:b:[c]:: <d e>;  
RTRV-{T1}: [a]:b:[c]:: <d e f>;  
RTRV-T3: [a]:b:[c]:: <e f>;

**Command Name:** Retrieve {EC1|T1|T3|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

## Purpose

---

This command retrieves the provisioning information and service data (parameters stored in the system database) associated with (EC-1|DS1|DS3|VT1.5) Ports.

**Notes:** Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

The RTRV-{EC1|VT1|T1} command is not denied on a SMUX circuit pack because of its particular provisioned mode. The ACTSIG parameter (f) signifies the actual provisioned mode of the circuit pack. When a SMUX is reprovisioned from one mode to another (by the ED-PORT command), all the provisioning parameters related to the signal type before reprovisioning are saved in the database and can be subsequently retrieved by the appropriate RTRV-{EC1|VT1|T1} command.

## Input Parameters

---

- a      **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b      **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported, and if all of the ports specified are on unprovisioned circuit packs, this command is denied.  
  
          Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.

### Input Format

---

```
RTRV-{EC1|VT1}:[a]:b:[c]:::<d e>;  
RTRV-{T1}:[a]:b:[c]:::<d e f>;  
RTRV-T3:[a]:b:[c]:::<e f>;
```

### Input Parameters (Continued)

---

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d       **Output Mode (OMODE):**  
          **(EC1IVT1):** OMODE = { NORM, TERM, AIS, ALL }  
          **(T1):** OMODE = { NORM, TERM, AIS, QRSS, ALL }  
          **(T3):** { <not used> }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the output mode in which an addressed Port must be provisioned if its status is reported.

- **NORM** (normal) - is cross-connected data (if Port is mapped) or the IDLE signal (if Port is idle).
- **TERM** (terminated) - is the IDLE signal.
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal. When using this value, the end of the response message shows the QRSS input port, provided that at least one QRSS output port has been provisioned. If no output port in the selected DS1 Port range is provisioned for QRSS, the value **ALL** can be used to retrieve the QRSS input port.
- **ALL** - matches all states, causing status to be reported on all addressed ports.

## RTRV-{EC1|T1|T3|VT1}

### Input Format

---

```
RTRV-{EC1|VT1}: [a]:b:[c]:: <d e>;  
RTRV-{T1}: [a]:b:[c]:: <d e f>;  
RTRV-T3: [a]:b:[c]:: <e f>;
```

### Input Parameters (Continued)

---

- e      **Input Status (ISTAT):**  
      **(EC1|T3):** ISTAT = { INIT, DRVN, NDRVN }  
      **(T1):** ISTAT = { INIT, DRVN, NDRVN, QRSS, ALL }  
      **(VT1):** ISTAT = { DRVN, NDRVN, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Input Signal Status of the port.

**(T1):** When the Input Status of a DS1 signal that is within a DS3 or STS-1 signal is retrieved through this command, and the DS3's or STS-1's Input Status is NDRVN or INIT, the DS1's Input Status is marked with an asterisk (that is, DRVN\*, NDRVN\*).

**(VT1):** When the Input Status of a VT1.5 signal that is within a STS-1 signal is retrieved through this command, and the STS-1's Input Status is NDRVN or INIT, the VT1.5's Input Status is marked with an asterisk (that is, DRVN\*, NDRVN\*).

- **INIT** - is used for an initialized (unset) value (that is, the port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN).
- **DRVN** (driven) - indicates that a valid signal is expected at the port, and the port is being monitored for failures.
- **NDRVN** (not driven) - indicates that no valid signal is expected at the input port, and the port is not monitored for failures. If the port is formatted, Performance Monitoring data is accumulated.
- **QRSS** - is used to indicate the DS1 Port that is provisioned as the QRSS source for the system.
- **ALL** - matches all states, causing status to be reported on all addressed ports.

- f      **Format (FORMAT):**  
      **(EC1|VT1):** { <not used> }  
      **(T1):** DS1 Signal Format: FMT = { ESF, SF, UNFR }  
      **(T3):** DS3 Format: DS3FORMAT = { ASYNC, CBIT }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Signal Format.

**(T1):** Specifies the signal format for DS1s associated with DS1 Ports or associated with MUX circuit pack ports.

- **ESF** - indicates Extended Super Frame.
- **SF** - indicates Super Frame.

## RESPONSES

---

### Normal Response

---

#### (EC1):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:ACTSIG: <> */
" g:h:<i k m o p u a g a h>"
.
.
.
" g:h:<i k m o p u a g a h>"
;
```

#### (T1):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:ACTSIG: <> */
" g:h:<i j m n q r s t u v w x y>"
.
.
.
" g:h:<i j m n q r s t u v w x y>"
;
```

#### (T3):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:: <> */
" g::<i j l m n z a a a b a c a d a e a f>"
.
.
.
" g::<i j l m n z a a a b a c a d a e a f>"
;
```

#### (VT1):

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:ACTSIG: <> */
" g:h:<i m u>"
.
.
.
" g:h:<i m u>"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
ai
[ "<parsable text string>"]
;
```



## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u ag ah>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

## Output Parameters (Continued)

---

- **LOF** - indicates Loss of Frame.
- **LOP** - indicates Loss of Pointer.
- **LOS** - indicates Loss of Signal.
- **OOF** - indicates Out of Frame.
- **SLMF** - indicates Signal Label Match Failure.
- **T-BER** - indicates Bit Error Rate Threshold exceeded.
- **T-BERL** - indicates Line Soft Bit Error Rate Threshold exceeded.
- **YEL** - indicates Yellow Signal.

j **Bit Error Rate Threshold (BER):**  
(T1IT3): BER = { 3-9 }  
(EC1IVT1): { <not used> }

Specifies the Bit Error Rate threshold for the specified port. The domain corresponds to BERs of  $10^{-3}$  through  $10^{-9}$ .

(T1): This parameter applies to DS1 ports, and is omitted for a DS1 port associated with a MUX circuit pack.

k **Line Bit Error Rate Threshold (BERL):**  
(EC1): BERL = { 3, 5-9 }  
(T1IT3IVT1): { <not used> }

Specifies the Line Bit Error Rate threshold for the EC-1 Port. The domain corresponds to BERs of  $10^{-5}$  through  $10^{-9}$  for Soft BER, and  $10^{-3}$  for Hard BER.

l **Bit Error Rate Metric (BERM):**  
(T3): BERM = { BPV, PTY, CP-BITS, FMA-BITS, FMN-BITS }  
(EC1IT1IVT1): { <not used> }

Specifies the metric for calculating Bit Error Rates on the DS3 Port.

- **BPV** - indicates BiPolar Violations.
- **PTY** - indicates Parity.
- **FMA-BITS** - indicates F&M bits adjusted.
- **FMN-BITS** - indicates bits non-adjusted.
- **CP-BITS** - indicates a copy of the parity bits.

## RTRV-**{EC1IT1IT3IVT1}**

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u a g a h>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

### Output Parameters (Continued)

---

m **Input Status (ISTAT):**  
**(EC1IT3):** ISTAT = { INIT, DRVN, NDRVN }  
**(T1):** ISTAT = { INIT, DRVN, NDRVN, QRSS, DRVN\*, NDRVN\* }  
**(VT1):** ISTAT = { DRVN, NDRVN, DRVN\*, NDRVN\* }

Specifies the Input Signal Status of the port.

**(T1):** When the Input Status of a DS1 signal that is within a DS3 or STS-1 signal is retrieved through this command, and the DS3's or STS-1's Input Status is NDRVN or INIT, the DS1's Input Status is marked with an asterisk (that is, DRVN\*, NDRVN\*).

**(VT1):** When the Input Status of a VT1.5 signal that is within a STS-1 signal is retrieved through this command, and the STS-1's Input Status is NDRVN or INIT, the VT1.5's Input Status is marked with an asterisk (that is, DRVN\*, NDRVN\*).

- **INIT** - is used for an initialized (unset) value (that is, the port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN).
- **DRVN** (driven) - indicates that a valid signal is expected at the port, and the port is being monitored for failures.
- **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
- **QRSS** - is used to indicate the DS1 Port that is provisioned as the QRSS source for the system.

n **Format (FORMAT):**  
**(EC1IVT1):** { <not used> }  
**(T1):** DS1 Signal Format: FMT = { ESF, SF, UNFR }  
**(T3):** DS3 Format: DS3FORMAT = { ASYNC, CBIT }

Specifies the Signal Format.

**(T1):** Specifies the signal format for DS1s associated with DS1 Ports or associated with MUX circuit pack ports.

**(T3):** Specifies the signal format for the DS3 signal on a MUX circuit pack.

- **ESF** - indicates Extended Super Frame.
- **SF** - indicates Super Frame.
- **UNFR** - indicates Unframed.
- **ASYNC** - indicates M13.
- **CBIT** - indicates CBIT.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
M c
  "g:h:<i k m o p u a g a h>" (Normal Response)
  "g:h:<i j m n q r s t u v w x y>" (Normal Response)
  "g::<i j l m n z a a a b a c a d a e a f>" (Normal Response)
  "g:h:<i m u>" (Normal Response)
  ai (Error Response)
```

## Output Parameters (Continued)

---

- o Transmit Path Trace (TRC):**  
(EC1): TRC = { <62 PATH TRACE CHARACTERS> }  
(T1IT3IVT1): { <not used> }
- Specifies the 62-byte Common Language Location Identifier (CLLI) string used to allow the intended receiving path transmitting equipment (PTE) to verify its continued connection to the DACS IV-2000.
- p Received Path Trace (RCVTRC):**  
(EC1): RCVTRC = { <64 PRINTABLE ASCII CHARACTERS> }  
(T1IT3IVT1): { <not used> }
- Specifies the 64-byte Common Language Location Identifier (CLLI) string identifying the incoming STS-1 path. If the incoming STS-1 signal is bad or if the DACS IV-2000 is not able to retrieve the trace, the string TRACE MESSAGE UNREADABLE is displayed.
- q DS1 Input Port State (ISTATE):**  
(T1): ISTATE = { <see below> }  
(EC1IT3IVT1): { <not used> }
- Specifies the Input State of the specified DS1 Port. Valid states for DS1 Input Ports, along with their meaning, are listed in the **State Names** appendix.
- r DS1 Output Port State (OSTATE):**  
(T1): OSTATE = { <see below> }  
(EC1IT3IVT1): { <not used> }
- Specifies the Output State of the specified DS1 Port. Valid states for DS1 Output Ports, along with their meaning, are listed in the **State Names** appendix.
- s TO DS1 Input Port (TDS1IN):**  
(T1): TDS1IN = { 1-32 } - { 1-31 } - { 1-28 }  
(EC1IT3IVT1): { <not used> }
- Specifies the DS1 Input Port, if any, which is mapped to the output of the specified DS1 Port. If the specified DS1 Port is a Testport, this parameter gives the DS1 Input Port under test. Otherwise, this parameter is omitted.
- t FROM DS1 Output Port (FRDS1OUT):**  
(T1): FDS1OUT = { 1-32 } - { 1-31 } - { 1-28 }  
(EC1IT3IVT1): { <not used> }
- Specifies the DS1 Output Port, if any, which is mapped to the input of the specified DS1 Port. If the specified DS1 Port is bridged to more than one DS1 Output Port, the normal response line is repeated one time for each Mapped DS1 Output Port. If the specified DS1 Port is a Testport, this parameter gives the DS1 Output Port (if any) which is mapped to the DS1 Input Port under test. Otherwise, this parameter is omitted.

## RTRV-**{EC1IT1IT3IVT1}**

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u ag ah>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

### Output Parameters (Continued)

---

u **Output Mode (OMODE):**  
(T1): OMODE = { NORM, TERM, AIS, QRSS }  
(EC1IVT1): OMODE = { NORM, TERM, AIS }  
(T3): { <not used> }

Specifies what is transmitted from the Output Port.

- **NORM** (normal) - is cross-connected data (if Port is mapped) or the IDLE signal (if Port is idle).
- **TERM** (terminated) - is the IDLE signal.
- **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
- **QRSS** - is a quasi-random signal.

v **Red Lined (RDLD):**  
(T1): SST = { RDLD }  
(EC1IT3IVT1): { <not used> }

Specifies whether or not the circuit associated with the DS1 Input Port is red-lined (Special Service Protection, SSP). An omitted value indicates the circuit is not red-lined. Any connections that are specified as red-lined when set up must also have red-lined specified when they are disconnected, or the disconnect is denied. To insure that this protection feature is not misused, specifying red-lined for the disconnection of a normal (non red-lined) circuit is also denied. Multipoint circuits must use red-lined consistently for all Ports in the circuit. If the initial connection from an Input Port is specified as red-lined, all subsequent connections from the same Input Port must also be red-lined. Conversely, if the initial connection is not red-lined, none of the others can be either.

- **RDLD** - indicates the circuit is red-lined.

w **Provisioned DS1 Code Type (LINECDE):**  
(T1): LINECDE = { AMI, B8ZS, AMI\*, B8ZS\*, INIT }  
(EC1IT3IVT1): { <not used> }

Specifies the code type for a DS1 Port, either AMI or B8ZS, as provisioned. This parameter applies to DS1 Ports, and is omitted for a DS1 Port associated with a MUX circuit pack. The value *INIT* is used for an initialized (unset) value. An asterisk (\*) appears after the value if it was provisioned through circuit pack insertion rather than through a command. If there is an asterisk and the Provisioned and Circuit Pack values differ, the circuit pack is considered bad and an alarm is raised. If there is no asterisk, the Provisioned value overrides the Circuit Pack value, and no alarm is raised.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u ag ah>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

## Output Parameters (Continued)

---

- x **Circuit Pack DS1 Code Type (CPLINECDE):**  
(T1): CPLINECDE = { AMI, B8ZS }  
(EC1IT3IVT1): { <not used> }
- Specifies the code type for a DS1 Port, either AMI or B8ZS, as determined by information read from the circuit pack. This parameter applies to DS1 Ports, and is omitted for a DS1 Port associated with a MUX circuit pack. If the value cannot be read from the circuit pack, this value is omitted. A manually provisioned value overrides the circuit pack value, if they differ.
- y **Far-End Notification (FENDNTE):**  
(T1): FENDNTE = { ANSI, NOT-ANSI }  
(EC1IT3IVT1): { <not used> }
- Specifies protocol for obtaining far-end performance parameters.
- ANSI - specifies that far-end performance monitoring is performed.
  - NOT-ANSI - indicates that far-end performance monitoring is not performed.
- z **DS3 Idle Signal (IDLE):**  
(T3): IDLE = { ON, OFF }  
(EC1IT1IVT1): { <not used> }
- Specifies the DS3 Idle Signal of a DS3 Port (either ON or OFF).
- aa **DS3 Loopback State (LSTATE):**  
(T3): LSTATE = { LPBKL, FLPBKL, LPBKF, NONE }  
(EC1IT1IVT1): { <not used> }
- Specifies the DS3 Line Status regarding loopback conditions.
- LPBKL - indicates an active DS3 line loopback; as established by the near-end command.
  - FLPBKL - indicates an active DS3 line loopback; as established in response to a far-end command.
  - LPBKF - indicates a request for a far-end DS3 loopback, from a near-end command.
  - NONE - indicates no loopbacks are active.

## RTRV-**{EC1IT1IT3IVT1}**

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u ag ah>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

### Output Parameters (Continued)

---

ab **Remote Multiplex Communications (RMTMUXC):**  
(T3): RMTMUXC = { SBIT, FEAC, TR9, NONE }  
(EC1IT1IVT1): { <not used> }

Specifies the type of far-end multiplexer the MUX2 circuit pack is provisioned for remote multiplex communication. This parameter is omitted if the DS3 Port is not associated with a MUX2 circuit pack capable of remote multiplex communications.

- **SBIT** - indicates DS3 stuff bit protocol communication, such as that used for the DDM-1000 multiplexer.
- **FEAC** - indicates use of the Far-End Alarm and Control channel for DS1/DS3 loopback operations and reporting alarm/status.
- **TR9** - indicates use of the DS2 C-Bits for DS1 loopback operations.
- **NONE** - indicates provisioned for none of the listed types.

ac **DS3X-Transmit (XPOL):**  
(T3): XPOL = { 0, 1, ALM0, ALM1 }  
(EC1IT1IVT1): { <not used> }

Specifies the DS3 X-Bits, used to indicate a near-end DS3 yellow alarm condition, transmitted to the far-end from a MUX2 circuit pack. A DS3 yellow alarm condition is defined as a AIS, LOS, or OOF condition.

- **0** - indicates the DS3 X-bits are fixed as zeros.
- **1** - indicates the DS3 X-bits are fixed as ones; regardless of active DS3 alarm condition.
- **ALM0** - indicates the DS3 X-Bits are zeros for an active DS3 alarm condition (ones for no condition).
- **ALM1** - indicates the DS3 X-Bits are ones for an active DS3 alarm condition (zeros for no condition).

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u a g a h>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z a a a b a c a d a e a f>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

## Output Parameters (Continued)

---

ad **DS3X-Receive (XBITRCV):**  
(T3): XBITRCV = { ALM0, ALM1, IGNORE }  
(EC1IT1IVT1): { <not used> }

Specifies how the DS3 X-Bits, used to indicate a far-end DS3 yellow alarm condition, received from the far-end into a MUX2 circuit pack are interpreted. A DS3 yellow alarm condition is defined as an AIS, LOS or OOF condition.

- **ALM0** - indicates the DS3 X-Bits are zeros for an active DS3 alarm condition (ones for no condition).
- **ALM1** - indicates the DS3 X-Bits are ones for an active DS3 alarm condition (zeros for no condition).
- **IGNORE** - indicates the DS3 X-Bits are ignored.

ae **DS2X-Transmit (DS2XTR):**  
(T3): DS2XTR = { 0, 1, ALM0, ALM1 }  
(EC1IT1IVT1): { <not used> }

Specifies the DS2 X-Bits, used to indicate a near-end DS2 OOF condition, transmitted to the far-end from a MUX2 circuit pack.

- **0** - indicates the DS2 X-Bits are fixed as zeros.
- **1** - indicates the DS2 X-Bits are fixed as ones; regardless of active DS2 OOF condition.
- **ALM0** - indicates the DS2 X-Bits are zeros for an active DS2 OOF condition (ones for no condition).
- **ALM1** - indicates the DS2 X-Bits are ones for an active DS2 OOF condition (zeros for no condition).

af **DS2X-Receive (DS2XRCV):**  
(T3): DS2XRCV = { ALM0, ALM1, IGNORE }  
(EC1IT1IVT1): { <not used> }

Specifies how the DS2 X-Bits, used to indicate a far-end DS2 OOF condition, received from the far-end into a MUX2 circuit pack are interpreted.

- **ALM0** - indicates the DS2 X-Bits are zeros for an active DS2 OOF condition (ones for no condition).
- **ALM1** - indicates the DS2 X-Bits are ones for an active DS2 OOF condition (zeros for no condition).
- **IGNORE** - indicates the DS2 X-Bits are ignored.

## RTRV-{EC1IT1IT3IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h:<i k m o p u a g ah>" (Normal Response)  
"g:h:<i j m n q r s t u v w x y>" (Normal Response)  
"g::<i j l m n z aa ab ac ad ae af>" (Normal Response)  
"g:h:<i m u>" (Normal Response)  
ai (Error Response)

### Output Parameters (Continued)

---

ag **SONET Condition Onset Soak Time (SOAKON):**

(EC1): SOAKON = { 1-30 }

(T1IT3IVT1): { <not used> }

Specifies the provisionable period (measured in seconds) of time that a SONET facility has an alarm condition active, before the SMUX circuit pack sends a failure indication to the Unit Controller (UC). Soak (onset) time is set on a per STS-1 signal basis and applies to all VT1.5 tributaries of a given STS-1 signal. Soak (onset) time is not applied to SMUX equipment alarm conditions.

ah **SONET Condition Clear Soak Time (SOAKCLR):**

(EC1): SOAKCLR = { 1-20 }

(T1IT3IVT1): { <not used> }

Specifies the provisionable period of time (measured in seconds) that a SONET is no longer in the failure state, before the SMUX circuit pack sends a clear indication to the Unit Controller (UC) to clear the alarm condition(s). Soak (Clear) time is set on a per EC-1 Port basis and applies to all VT1.5 tributaries of a given STS-1 signal. Soak (clear) time is not applied to SMUX equipment alarm conditions.

ai **Error Code (ERRCDE):**

{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Any of the input parameters is invalid
IDNV	System failed to get all specified port ranges
IDRG	Port requested is out of range
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SDNC	All addressed ports are not provisioned as EC-1 Ports
SNAS	All specified ports are not in assigned state
SNIS	All addressed ports are not in-service
SNPV	All addressed ports are not provisioned
SNVS	MC is not in service

## RTRV-ALM-{EC1|T1|T2|T3|VT1}

### INPUT FORMAT

---

RTRV-ALM- {T1|T3} : [a] : b : [c] : : [d] , [e] , [f] , [g] , , , , , ;  
RTRV-ALM- {EC1|T2|VT1} : [a] : b : [c] : : [d] , [e] , [f] , , , , , ;

**Command Name:** Retrieve Alarm {EC1|T1|T2|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

**(EC1):** This command retrieves the current status of all autonomously reported EC-1 Port indicators (alarms) from an SMUX circuit pack within the system. The status of ports set to **NA** are not reported.

**(T1):** This command retrieves the current status of all autonomously reported DS1 port indicators (alarms) on a DS1IF or MUX circuit pack within the system and retrieves the current alarm status for far-end DS1 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures. The status of ports set to **NA** are not reported.

**(T2):** This command retrieves the current status of all autonomously reported far-end DS2 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures.

**(T3):** This command retrieves the current status of all autonomously reported DS3 port indicators (alarms) from a MUX circuit pack within the system and retrieves the current alarm status for far-end DS3 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures. The status of ports set to **NA** are not reported.

**(VT1):** This command retrieves the current status of all autonomously reported VT1.5 port indicators (alarms) on an SMUX circuit packs within the system. The status of ports set to **NA** are not reported.

### Notes:

- **T2** - This command is denied with an error code of **SNPV** (status, not provisioned) unless the **RMTMUX-COMM** parameter in the **ED-T3** command is set to TR9.
- **T3** - Far end T3 alarm conditions can only be retrieved if the T3 is provisioned for remote multiplexer communication (TR9, FEAC or SBIT) via the **RMTMUX-COMM** parameter in the **ED-T3** command. Otherwise, this command is denied with an error code of **SNPV** (status, not provisioned).

## RTRV-ALM-{EC1|T1|T2|T3|VT1}

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32}, ALL }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, SWIF-{1-32}-{1-8}, UNIT-{1-32},  
                          MUX-{1-32}-{1-31}, ALL }  
          **(T2):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32}, ALL }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32}, ALL }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15},  
                          ALL }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified using restrictive  
                          multiple addressing. Only those ports on provisioned circuit packs are  
                          reported, and if all of the ports specified are on unprovisioned circuit  
                          packs, the command is denied.

Specifies the port or all of the ports associated with the specified interface modules,  
groups, or circuit packs.

**(T1):** The value **MUX-{1-32}-{1-31}** is only valid when the **LOCN** parameter (g) is  
**FEND**.

**(T2):** Specifies the DS3 Port associated with the T2 signal.

- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output  
response.

- d       **Notification Code (NTFCNCDE):**  
          { MJ, MN, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the notification code for alarms retrieved.

- **MJ** - indicates a Major Alarm.
- **MN** - indicates a Minor Alarm.

## Input Format

---

RTRV-ALM- {T1|T3}: [a]:b:[c]::[d],[e],[f],[g],,,,,,;  
RTRV-ALM- {EC1|T2|VT1}: [a]:b:[c]::[d],[e],[f],,,,,,;

## Input Parameters (Continued)

---

- e      **Condition Type (CTYPE):**  
      **(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF, ALL }  
      **(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC, ALL }  
      **(T2):** { OOF, ALL }  
      **(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE,  
              ALLDS2SOOF, INC, YEL, SBITFAIL, DS3FRMTMISMTCH, ALL }  
      **(VT1):** { LOP, AISP, YEL, ALL }  
  
              **Default:** ALL  
              **Initial System Value:** None  
              **Addressing Rules:** None

Specifies the type of alarm condition.

- **AIS** - indicates Alarm Indication Signal detected.
- **AISFRAMED** - indicates a Framed Alarm Indication Signal.
- **AISUNFRAMED** - indicates an Unframed Alarm Indication Signal.
- **AISL** - indicates Line Alarm Indication Signal.
- **AISP** - indicates Path Alarm Indication Signal.
- **ALLDS2SOOF** - indicates all DS2s in a DS3 signal are Out of Frame.
- **DS1-AIS** - indicates DS1 Alarm Indication Signal detected.
- **DS3FRMTMISMTCH** - indicates DS3 Format Mismatch detected.
- **FERF** - indicates Far End Receive Failure.
- **IDLE** - indicates Idle.
- **INC** - indicates incoming DS3 or DS1 failure (far-end).
- **LOF** - indicates Loss of Frame.
- **LOP** - indicates Loss of Pointer.
- **LOS** - indicates Loss of Signal.
- **MINC** - indicates Multiple Incoming failures (far-end).
- **OOF** - indicates Out of Frame.
- **SBITFAIL** - indicates SBIT communications protocol failure (far-end).
- **SLMF** - indicates Signal Label Match Failure.
- **T-BER** - indicates Bit Error Rate Threshold exceeded.

## RTRV-ALM-{EC1|T1|T2|T3|VT1}

### Input Format

---

RTRV-ALM- {T1|T3} : [a] : b : [c] : : [d], [e], [f], [g], , , , , , , , , ;  
RTRV-ALM- {EC1|T2|VT1} : [a] : b : [c] : : [d], [e], [f], , , , , , , , ;

### Input Parameters (Continued)

---

- **T-BERL** - indicates Line Soft Bit Error Rate Threshold exceeded.
- **YEL** - indicates Yellow Signal (far-end for T3).
- **ALL** - indicates either all near-end or all far-end failure conditions, depending upon the value specified in the **LOCN** parameter (g), for (T1|T2|T3) Signals, or all near-end failure conditions, for (STS-1|VT1.5) Signals.

f **Service Affecting (SRVEFF):**  
{ SA, NSA, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies whether service-affecting (**SA**) or non-service-affecting (**NSA**) alarms or both (**ALL**) are retrieved.

g **Location (LOCN):**  
(T1|T3): { NEND, FEND }  
(EC1|T2|VT1): { <not used> }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location where the condition is associated with. The value **FEND** is only valid when the **DS1** parameter (b) is **MUX- {1-32} - {1-31}**.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve active conditions associated with far-end equipment in the DACS IV-2000 database.

## RESPONSES

---

### Normal Response

---

If none of the specified alarm priorities are active on the specified DS1 ports the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

If one or more of the specified alarm priorities is active on one or more of the specified ports, the normal response is (one line is generated for each active alarm condition; if a port has more than one active alarm condition, multiple lines appear for that port).

#### (EC1IVT1):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF */
"h:j,k,l"
.
.
.
"h:j,k,l"
;
```

#### (T1IT3):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"h:j,k,l,,,m"
.
.
.
"h:j,k,l,,,m"
;
```

#### (T2):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC,TRIB:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"hi:j,k,l,,,m"
.
.
.
"hi:j,k,l,,,m"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
n
[ "<parsable text string>" ]
```

## RTRV-ALM-{EC1|T1|T2|T3|VT1}

### Output Parameters

---

- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- h**      **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, MUX-{1-32}-{1-31} }  
          **(T2|T3):** DS3 Port: { {1-32}-{1-31} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the individual port from the range specified in the input **LOC** parameter (b).
- (T1):** In addition to the individual DS1 port, the MUX2 circuit pack which received the far-end DS1 facility condition can be specified.
- (T2):** Specifies the DS3 Port associated with the T2 signal.
- i**      **DS2 Tributary (TRIB):**  
          **(EC1|T1|T3|VT1):** { <not used> }  
          **(T2):** { 1-7 }
- Specifies the DS2 Tributary associated with the DS3 Port.
- j**      **Notification Code (NTFCNCDE):**  
          { MJ, MN }
- Specifies the notification code of the alarm condition.
- **MJ** - indicates a Major Alarm.
  - **MN** - indicates a Minor Alarm.
- k**      **Condition Type (CTYPE):**  
          **(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF }  
          **(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC }  
          **(T2):** { OOF }  
          **(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, INC, YEL, SBITFAIL, DS3FRMTMISMTCH }  
          **(VT1):** { LOP, AISP, YEL }
- Specifies the type of alarm condition. A list of condition types, along with their definitions, is given in the **Condition Types** appendix.
- l**      **Service Affecting (SRVEFF):**  
          { SA, NSA }
- Specifies whether this alarm condition is service-affecting (**SA**) or non-service-affecting (**NSA**).
- m**      **Location (LOCN):**  
          **(EC1|VT1):** { <not used> }  
          **(T1|T3):** { NEND, FEND }  
          **(T2):** { FEND }
- Specifies the location of the retrieved facility condition.

**Output Format**

---

```
TID YY-MM-DD HH:MM:SS
M   c
    "h:j,k,l"                (Normal Response)
    "h:j,k,l,,m"            (Normal Response)
    "h,i:j,k,l,,m"          (Normal Response)
n                                     (Error Response)
```

**Output Parameters (Continued)**

---

n       **Error Code (ERRCDE):**  
           { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	DS1 port is <b>MUX- {1-32} - {1-31}</b> but <b>LOCN</b> parameter (g) is <b>NEND</b>
IDNV	VT1.5 port is <b>SMUX- {1-32} - {1-31}</b> but <b>LOCN</b> parameter (g) is <b>NEND</b>
IDNV	DS1 port is not <b>MUX- {1-32} - {1-31}</b> but <b>LOCN</b> parameter (g) is <b>NEND</b>
IDNV	The input range value is invalid
IDRG	Input circuit pack number is out of range
IDRG	The input circuit pack number is out of range ( <b>NEND</b> or <b>FEND</b> )
IISP	Syntax or punctuation error in entering input command
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	Input request is not <b>MUX2/SMUX</b> circuit pack
SNPV	Remote multiplexer type is not <b>FEAC</b> or <b>TR9</b>
SNPV	Remote multiplexer type is not <b>FEAC</b> when location is <b>FEND</b>
SNPV	Remote multiplexer type is not <b>TR9</b> ( <b>F-End</b> )
SNVS	Input request is <b>PMGR</b> circuit pack
SNVS	Interface module is not provisioned
SNVS	Interface module is <b>DS1 interface/DS1 interface-protection/ DS3 interface</b>
SNVS	<b>MC</b> is not in service
SNVS	<b>MUX/SMUX</b> circuit pack is not assigned
SNVS	Remote multiplexer is not assigned
SNVS	The input request is a <b>PMGR</b> circuit pack

# RTRV-ALM-ALL

## INPUT FORMAT

---

RTRV-ALM-ALL: [a] : [b] : [c] :: [d], [e], [f], [g], , , ;

**Command Name:** Retrieve Alarm All  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the current status of all autonomously reported alarms associated with equipment, facilities, and CILINKs of the DACS IV-2000.

You can screen the alarm information retrieved by supplying values for the input parameters. The DACS IV-2000 uses these input values to select which alarms are retrieved. There is one line of output generated for each active alarm.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b        **Equipment Location (LOC):**  
          { ALL }
- Default:** ALL  
          **Initial System Value:** ALL  
          **Addressing Rules:** None.
- Specifies the alarms of all equipment, facilities, and CILINKs, are retrieved.
- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

RTRV-ALM-ALL: [a] : [b] : [c] :: [d] , [e] , [f] , [g] , , ;

### Input Parameters (Continued)

d        **Notification Code (NTFCNCDE):**  
          { CR, MJ, MN, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the notification code for alarms retrieved.

- **CR** - indicates a Critical Alarm.
- **MJ** - indicates a Major Alarm.
- **MN** - indicates a Minor Alarm.
- **ALL** - indicates all notification codes apply.

e        **Condition Type (CTYPE):**

{ ACPWR, AIS, AISFRAMED, AISL, AISP, AISUNFRAMED, ALLDS2SOOF,  
ALLREFFAIL, BKUPMEMS, COM, CONTBUS, DS1-AIS, DS1IF,  
DS3FRMTMISMATCH, DTLCH, EOR, EXJIT, EXPHR, EXTERR, FANAUX,  
FANFILTER, FANMAIN, FANUNIT, FERF, FRD, FRQOF, FSNLN, FSTO, ICTLR,  
IDLE, IHRER, IMPROPBLK, IMPROPRMVL, INC, INHSWWKG, INHSWPR, INT,  
LERDF, LOF, LOP, LOS, MAN, MINC, MUX, OOF, PFLCH, PHSTP, PSHLN,  
RAMER, ROMER, RTV, SBITFAIL, SLMF, SYNCCLK0, SYNCCLK1, SYNCFRNG,  
SYNCFST, SYNCHLDOVR, SYPLN, T-BER, T-BERL, TBCOLD, TBIOER, TBLN,  
TBNDF, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV,  
XCSUM, XFLRG, XFQOF, XLKDN, YEL, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the type of alarm condition.

- **ACPWR** - indicates AC Power Failure detected.
- **AIS** - indicates Alarm Indication Signal detected.
- **AISFRAMED** - indicates a framed Alarm Indication Signal detected.
- **AISL** - indicates Line Alarm Indication Signal detected.
- **AISP** - indicates Path Alarm Indication Signal detected.
- **AISUNFRAMED** - indicates an unframed Alarm Indication Signal detected.
- **ALLDS2SOOF** - indicates all DS2s in a DS3 signal are out of frame.
- **ALLREFFAIL** - indicates failure of all synchronizer timing references.
- **BKUPMEMS** - indicates backup to secondary nonvolatile memory failure detected.
- **COM** - indicates a common equipment failure detected.
- **CONTBUS** - indicates control bus failure detected.

## RTRV-ALM-ALL

### Input Format

---

RTRV-ALM-ALL:[a]:[b]:[c]::[d],[e],[f],[g],,,;

### Input Parameters (Continued)

---

- **DS1-AIS** - indicates DS1 Alarm Indication Signal detected.
- **DS1IF** - indicates DS1 Interface equipment failure detected.
- **DS3FRMTMISMATCH** - indicates DS3 Format Mismatch detected.
- **DTLCH** - indicates Data Latch Error detected.
- **EOR** - indicates End-of-Range Error detected.
- **EXJIT** - indicates Excessive Jitter detected.
- **EXPHR** - indicates Excessive Phase Error detected.
- **EXTERR** - indicates error detected external to the DACS IV-2000 system.
- **FERF** - indicates Far End Receive Failure detected.
- **FRD** - indicates security violation has occurred.
- **FRQOF** - indicates Frequency Offset Error detected.
- **FSNLN** - indicates Frequency Synthesizer Loss of Energy detected.
- **FSTO** - indicates PLL Fast Start Time-out detected.
- **ICTLR** - indicates Interrupt Controller Error detected.
- **IDLE** - indicates Idle signal detected.
- **IHRER** - indicates Interrupt Holding Register Error detected.
- **IMPROPBLK** - indicates Improper blank circuit pack detected.
- **IMPROPRMVL** - indicates Improper removal detected.
- **INC** - indicates Incoming DS3 or DS1 failure detected.
- **INHSWPR** - indicates Switch to protection equipment inhibited.
- **INHSWWKG** - indicates Switch to working equipment inhibited.
- **INT** - indicates Internal hardware fault or failure detected.
- **LERDF** - indicates Line Error Detector Failure detected.
- **LOF** - indicates Loss of frame detected.
- **LOP** - indicates Loss of pointer detected.
- **LOS** - indicates Loss of signal detected.
- **MAN** - indicates Manually removed from service.
- **MINC** - indicates Multiple Incoming detected.
- **MUX** - indicates Multiplex equipment failure detected.
- **OOF** - indicates Out of Frame detected.
- **PFLCH** - indicates Phase/Frequency Readable Output Latch Error detected.
- **PHSTP** - indicates Phase Step Error detected.

## Input Format

RTRV-ALM-ALL: [a]:[b]:[c]::[d],[e],[f],[g],,,;

## Input Parameters (Continued)

- **PSHLN** - indicates Phase Shifter Output Loss of Energy detected.
- **RAMER** - indicates RAM Error detected.
- **ROMER** - indicates ROM Error detected.
- **RTV** - indicates Real-Time Violation detected.
- **SBITFAIL** - indicates SBIT communications protocol Failure indicating that the far end is not responding to (acknowledging) near end SBIT protocol communication.
- **SLMF** - indicates Signal Label Match Failure detected.
- **SYNCCLK0** - indicates detected failure is in Side 0 Clock Hardware.
- **SYNCCLK1** - indicates detected failure is in Side 1 Clock Hardware.
- **SYNCFRNG** - indicates synchronizer has made a transition into free-running mode.
- **SYNCFST** - indicates synchronizer has made a transition into fast-start mode.
- **SYNCHLDOVR** - indicates synchronizer has made a transition into holdover mode.
- **SYPLN** - indicates Sync Pulse Generator Loss of Energy detected.
- **TBCOLD** - indicates Time Base Oven Cold.
- **TBIOER** - indicates Time Base Communication Error detected.
- **TBLEN** - indicates Time Base Strobe Loss of Energy detected.
- **TBNDF** - indicates Time Base Strobe Energy Detector Failure detected.
- **TODC** - indicates Time-of-Day Clock.
- **T-BER** - indicates Bit Error Rate threshold exceeded.
- **T-BERL** - indicates Line Bit Error Rate threshold exceeded.
- **TRBER** - indicates High Bit-Error Rate on a Synchronization Timing Reference detected.
- **TRMNER** - indicates Minor Bit-Error Rate on a Synchronization Timing Reference detected.
- **URTER** - indicates UART Error detected.
- **X1LEN** - indicates Loss of Energy on 1 ms Synchronizer Crosscouple detected.
- **X3LEN** - indicates Loss of Energy on 30 ms Synchronizer Crosscouple detected.
- **XCOOL** - indicates Synchronizer Crosscouple Out-of-Lock Error detected.

## RTRV-ALM-ALL

### Input Format

RTRV-ALM-ALL: [a] : [b] : [c] : : [d], [e], [f], [g], , , ;

### Input Parameters (Continued)

- **XCRTV** - indicates Synchronizer Crosscouple Real-Time Violation Error detected.
- **XCSUM** - indicates Synchronizer Crosscouple Summary Error detected.
- **XFLRG** - indicates Synchronizer Crosscouple Fast Lock Range Error detected.
- **XFQOF** - indicates Synchronizer Crosscouple Frequency Offset Error detected.
- **XLKDN** - indicates Synchronizer Crosscouple Communication Link Error detected.
- **YEL** - indicates Carrier Group Alarm, Yellow, incoming direction detected.
- **ALL** - indicates all near-end conditions are retrieved.

f **Service Affecting (SRVEFF):**  
{ SA, NSA, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies whether service-affecting (**SA**) or non-service-affecting (**NSA**) alarms or both (**ALL**) are retrieved.

g **Location (LOCN):**  
{ NEND }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location which is associated with the condition.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.

## RESPONSES

---

### Normal Response

---

If no alarms match the input specifications, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

If one or more equipment, port (T1, T2, T3), frame, or link alarms match the input specification, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC,ALMTYPE:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,TRIB */
"h,i:j,k,l,,,m:,n"
.
.
.
"h,i:j,k,l,,,m:,n"
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
o
{ "<parsable text string>"
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- h Equipment Location/Link ID/(DS1IDS3IVT1.5IEC-1) Port (LOC):**  
{ MC, CC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2}, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, SMUX-{1-32}-{1-15}, SMUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, PWRA-{1-4}, PWRE-{1-32}-{1-2}, POWERE-SW-{1,2}, PWRP-{1,2}, PWRG-{1,2}, FAN, DPLL-{0,1}, TB-{0,1}, TX-{0,1}, SYNCN, SYNCPRI-{0,1}, SYNCSEC-{0,1}, CILINK-{1,2}-{1-6}, {1-32}-{1-31}-{1-28}, {1-32}-{1-31} }
- Specifies the individual equipment, facility, or CILINK from the range specified in the LOC input parameter (b). This parameter is omitted for a Critical Alarm.
- i Alarm Type (ALMTYPE):**  
{ COM, EQPT, T1, T2, T3, VT1, EC1, LINK }
- Specifies the type of alarm associated with the rest of the output response line.

# RTRV-ALM-ALL

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"h,i:j,k,l,,m:,n" (Normal Response)  
o (Error Response)

## Output Parameters (Continued)

---

j **Notification Code (NTFCNCDE):**  
{ CR, MJ, MN }

Specifies the notification code of the alarm condition.

- **CR** - indicates a Critical Alarm.
- **MJ** - indicates a Major Alarm.
- **MN** - indicates a Minor Alarm.

k **Condition Type (CTYPE):**  
{ ACPWR, AIS, AISFRAMED, AISL, AISP, AISUNFRAMED, ALLDS2SOOF, BKUPMEMS, COM, CONTBUS, DS1-AIS, DS1IF, DTLCH, DS3FRMTMISMATCH, EOR, EXJIT, EXPHR, EXTERR, FANAUX, FANFILTER, FANMAIN, FANUNIT, FERF, FRD, FRQOF, FSNLN, FSTO, ICTLR, IDLE, IHRER, IMPROPBLK, IMPROPRMVL, INC, INHSWWKG, INHSWPR, INT, LERDF, LOF, LOP, LOS, MAN, MINC, MUX, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SBITFAIL, SLMF, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, T-BER, T-BERL, TBCOLD, TBIOER, TBLN, TBND, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN, YEL }

Specifies the type of alarm condition. A list of condition types along with their definitions is given in the **Condition Types** appendix.

l **Service Affecting (SRVEFF):**  
{ SA, NSA }

Specifies whether this alarm condition is service-affecting (**SA**) or non-service-affecting (**NSA**).

m **Location (LOCN):**  
{ NEND }

Specifies the location of the retrieved equipment condition.

n **DS2 Tributary (TRIB):**  
{ 0-7 }

Specifies the DS2 Tributary associated with the alarm condition. A value of 0 indicates that no tributary is associated with the alarm retrieved.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"h,i:j,k,l,,,m:,n" (Normal Response)  
o (Error Response)

### Output Parameters (Continued)

---

- o **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	DS1 Port is <b>MUX</b> -{1-32}-{1-31} but <b>LOCN</b> parameter (g) is <b>NEND</b>
IDNV	The input range value is invalid
IDRG	Equipment ID (EID) is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	Input request is not <b>MUX2</b> circuit pack
SNVS	Condition entered was not met
SNVS	Equipment or facility is not in a valid state
SNVS	Input request is <b>PMGR</b> circuit pack
SNVS	<b>MC</b> is not in service
SNVS	<b>MUX/SMUX</b> circuit pack is not assigned
SNVS	Interface module is not provisioned, or is a <b>DS1</b> interface or <b>DS1</b> interface-protection module

# RTRV-ALM-COM

## INPUT FORMAT

---

RTRV-ALM-COM: [a] : : [b] , , , , , , , ;

**Command Name:** Retrieve Alarm Common  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the current alarm status of the DACS IV-2000 network element.

**Notes:** For single or multiple critical (CR) alarms the *SRVEFF* parameter (e) is *SA*. If there is no CR alarms on the frame, but major (MJ) and minor (MN) alarms, this command's output response indicates *MJ* for the *NTFCNCDE* parameter (c) and *SRVEFF* is *SA* if there are MJ service affecting alarms or *NSA* if there are only MJ no service affecting alarms on the frame. If there are only MN alarms on the frame, this command's output response indicates *MN* for *NTFCNCDE* and *SRVEFF* is *SA* if the MN alarms are service affecting or *NSA* if the MN alarms are not service affecting.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

If no alarms are active on the frame, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
;
```

If one or more alarms are active on the frame, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* :NTFCNCDE,CTYPE,SRVEFF */
":c,d,e"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Notification Code (NTFCNCDE):**  
{ CR, MJ, MN }
- Indicates the notification code for the highest alarm level.
- **CR** - indicates a Critical Alarm.
  - **MJ** - indicates a Major Alarm.
  - **MN** - indicates a Minor Alarm.
- d Condition Type (CTYPE):**  
{ FAC, INT, GP }
- Specifies the type of alarm indication. If the system is provisioned to raise critical alarms (CR) for facility and equipment failures, the last event which causes the transition into or out of critical alarm is reported in this parameter (FAC or INT).
- **FAC** - indicates that the transition to CR was caused by a facility alarm onset.
  - **INT** - indicates that the transition to CR was caused by an equipment alarm onset.
  - **GP** - indicates General Purpose. This parameter is GP when the NTFCNCDE parameter (c) is MJ or MN. This value is equivalent to a null value.

## RTRV-ALM-COM

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
" :c,d,e" (Normal Response)  
f (Error Response)

### Output Parameters (Continued)

---

e **Service Affecting (SRVEFF):**  
{ NSA, SA }

Indicates the effect on service caused by the highest alarm level.

Critical (CR) alarms are service-affecting irrespective to the fact that major (MJ) alarms contributing to CR may have been service-affecting or not service-affecting. This is because all CR alarms, if not cleared immediately, can affect service.

- **SA** - indicates that the highest alarm level is a service-affecting alarm and that immediate action is required.
- **NSA** - indicates that the highest alarm level is not service-affecting. This does not imply that there are no service-affecting alarms present on the frame.

f **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## RTRV-ALM-EQPT

### INPUT FORMAT

---

RTRV-ALM-EQPT:[a]:b:[c]::[d],[e],[f],[g],,,,,,,,,;

**Command Name:** Retrieve Alarm Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the current status of all automatically-reported equipment indicators (alarm or status) for equipment within the DACS IV-2000 and for far-end equipment failures associated with a MUX2 circuit pack provisioned to report far-end failures.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2}, SCI-{1,2}, CLKGN-{0,1},  
          SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, SMUX-{1-32}-{1-15}, SMUXP-{1-32},  
          MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
          DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, PWRA-{1-4},  
          PWRE-{1-32}-{1-2}, POWERE-SW-{1,2}, PWRF-{1,2}, PWRG-{1,2}, FAN,  
          DPLL-{0,1}, TB-{0,1}, TX-{0,1}, SYNCN, SYNCPRI-{0,1}, SYNCSEC-{0,1}, ALL }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple equipment can be specified using full multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location. When an alarm is up on the activated control complex (CC), UI, SEC, SCI-{1,2}, this command is not allowed. When the main controller (MC) is in an OOS state, an active alarm for the specified equipment can not be retrieved. The value **SYNCN** addresses alarm conditions not associated with a single equipment location.

# RTRV-ALM-EQPT

## Input Format

---

RTRV-ALM-EQPT: [a]:b:[c]::[d],[e],[f],[g],,,,,,,,,;

## Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Notification Code (NTFCNCDE):**  
         { MJ, MN, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the notification code for alarms to be retrieved.

- **MJ** - indicates Major Alarm.
- **MN** - indicates Minor Alarm.
- **ALL** - indicates both Major and Minor Alarms.

e        **Condition Type (CTYPE):**  
         { ACPWR, ALLREFFAIL, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBNDF, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type of conditions to be retrieved. **ACPWR**, **COM**, **DS1IF**, and **MUX** are far-end condition types only.

- **ACPWR** - indicates AC Power Failure detected.
- **ALLREFFAIL** - indicates failure of all synchronizer timing references.
- **BKUPMEMS** - indicates secondary nonvolatile backup failure.
- **COM** - indicates Common equipment failure detected.
- **CONTBUS** - indicates Control bus failure detected.
- **DS1IF** - indicates DS1 Interface equipment failure detected.
- **DTLCH** - indicates Data Latch Error detected.
- **EOR** - indicates End-of-Range Error detected.

### Input Format

RTRV-ALM-EQPT: [a]:b:[c]::[d],[e],[f],[g],,,,,,,,,;

### Input Parameters (Continued)

- **EXJIT** - indicates Excessive Jitter detected.
- **EXPHR** - indicates Excessive Phase Error detected.
- **FRQOF** - indicates Frequency Offset Error detected.
- **FSNLN** - indicates Frequency Synthesizer Loss of Energy detected.
- **FSTO** - indicates PLL Fast Start Time-out.
- **ICTLR** - indicates Interrupt Controller Error detected.
- **IHRER** - indicates Interrupt Holding Register Error detected.
- **IMPROPBLK** - indicates Improper blank circuit pack detected.
- **IMPROPRMVL** - indicates Improper removal detected.
- **INHSWPR** - indicates Switch to protection equipment inhibited.
- **INHSWWKG** - indicates Switch to working equipment inhibited.
- **INT** - indicates Internal hardware fault or failure detected.
- **LERDF** - indicates Line Error Detector Failure detected.
- **LOS** - indicates Loss of signal detected.
- **MAN** - indicates Manually removed from service.
- **MUX** - indicates Multiplex equipment failure detected.
- **OOF** - indicates Out of Frame detected.
- **PFLCH** - indicates Phase/Frequency Readable Output Latch Error detected.
- **PHSTP** - indicates Phase Step Error detected.
- **PSHLN** - indicates Phase Shifter Output Loss of Energy detected.
- **RAMER** - indicates RAM Error detected.
- **ROMER** - indicates ROM Error detected.
- **RTV** - indicates Real-Time Violation detected.
- **SYNCCLK0** - indicates Detected failure is in Side 0 Clock Hardware
- **SYNCCLK1** - indicates Detected failure is in Side 1 Clock Hardware
- **SYNCFRNG** - indicates Synchronizer has made a transition into free-running mode.
- **SYNCFST** - indicates Synchronizer has made a transition into fast-start mode.
- **SYNCHLDOVR** - indicates Synchronizer has made a transition into holdover mode.

## RTRV-ALM-EQPT

### Input Format

---

RTRV-ALM-EQPT: [a]:b:[c]::[d],[e],[f],[g],,,,,,,,,;

### Input Parameters (Continued)

---

- **SYPLN** - indicates Sync Pulse Generator Loss of Energy detected.
- **TBCOLD** - indicates Time Base Oven Cold
- **TBIOER** - indicates Time Base Communication Error detected.
- **TBLEN** - indicates Time Base Strobe Loss of Energy detected.
- **TBNDF** - indicates Time Base Strobe Energy Detector Failure
- **TODC** - indicates Time-of-Day Clock
- **TRBER** - indicates High Bit-Error Rate on a Synchronization Timing Reference detected.
- **TRMNER** - indicates Minor Bit-Error Rate on a Synchronization Timing Reference detected.
- **URTER** - indicates UART Error detected.
- **X1LEN** - indicates Loss of Energy on 1 ms Synchronizer Crosscouple detected.
- **X3LEN** - indicates Loss of Energy on 30 ms Synchronizer Crosscouple detected.
- **XCOOL** - indicates Synchronizer Crosscouple Out-of-Lock Error detected.
- **XCRTV** - indicates Synchronizer Crosscouple Real-Time Violation Error detected.
- **XCSUM** - indicates Synchronizer Crosscouple Summary Error detected.
- **XFLRG** - indicates Synchronizer Crosscouple Fast Lock Range Error detected.
- **XFQOF** - indicates Synchronizer Crosscouple Frequency Offset Error detected.
- **XLKDN** - indicates Synchronizer Crosscouple Communication Link Error detected.
- **ALL** - indicates either all near-end or all far-end failure conditions, depending upon the value specified in the **LOCN** parameter (g).

f **Service Affecting (SRVEFF):**  
{ SA, NSA, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies whether service-affecting (**SA**) or non-service-affecting (**NSA**) alarms, or both (**ALL**), are retrieved.

### Input Format

---

RTRV-ALM-EQPT:[a]:b:[c]::[d],[e],[f],[g],,,,,,,,,;

### Input Parameters (Continued)

---

g        **Location (LOCN):**  
          { FEND, NEND, ALL }

**Default:** NEND

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location where the condition is associated with. The value **FEND** is only valid when **LOC** parameter (b) is set to **MUX- {1-32} - {1-31}**.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve active conditions associated with far-end equipment in the DACS IV-2000 database.
- **ALL** - indicates both **NEND** and **FEND**. The **FEND** value is only valid when **LOC** parameter (b) is set to **MUX- {1-32} - {1-31}**. If **LOC** parameter (b) is set to other than **MUX- {1-32} - {1-31}** and **ALL** is specified, only **NEND** values are retrieved.

# RTRV-ALM-EQPT

## RESPONSES

---

### Normal Response

---

If none of the specified alarm priorities are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

If one or more of the specified alarm priorities is active on one or more of the specified equipment locations, the normal response is (one line is generated for each active alarm condition, if the specified equipment has more than one active alarm condition, multiple lines appear):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTPFCNCDE,CTYPE,SRVEFF,,,LOCN */
"h:i,j,k,,,l"
.
.
.
"h:i,j,k,,,l"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
m
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**h**        **Equipment Location (LOC):**  
          { MC, CC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2}, SCI-{1,2}, CLKGN-{0,1},  
          SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, SMUX-{1-32}-{1-15}, SMUXP-{1-32},  
          MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
          DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, PWRA-{1-4},  
          PWRE-{1-32}-{1-2}, POWERE-SW-{1,2}, PWRF-{1,2}, PWRG-{1,2}, FAN,  
          DPLL-{0,1}, TB-{0,1}, TX-{0,1}, SYNCN, SYNCPRI-{0,1}, SYNCSEC-{0,1}, ALL }

Specifies the individual equipment from the range specified in the input LOC parameter (b).

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
m "h:i,j,k,,,l" (Error Response)

## Output Parameters (Continued)

---

**i Notification Code (NTFCNCDE):**  
{ MJ, MN }

Specifies the notification code of the alarm condition.

- MJ - indicates Major Alarm.
- MN - indicates Minor Alarm.

**j Condition Type (CTYPE):**  
{ ACPWR, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBND, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN }

Specifies the type of alarm condition. A list of condition types along with their definitions is given in the **Condition Types** appendix.

**k Service Affecting (SRVEFF):**  
{ SA, NSA }

Specifies whether this alarm condition is service-affecting (**SA**) or non-service-affecting (**NSA**).

**l Location (LOCN):**  
{ NEND, FEND }

Specifies the location of the retrieved equipment condition.

**m Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

# RTRV-ALM-LINK

## INPUT FORMAT

---

RTRV-ALM-LINK: [a]:b:[c]::[d],[e],[f],[g],,,,,,;

**Command Name:** Retrieve Alarm Link  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

Entering this command retrieves the current status of all automatically-reported equipment indicators (alarms) for administrative or data links within the DACS IV-2000 system.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6}, ALL }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple links can be specified using full multiple addressing.

Specifies the administrative or data link.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Notification Code (NTFCNCDE):**  
          { MN }

**Default:** MN  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the notification code for alarms to be retrieved.

- **MN** - indicates Minor Alarm.

## Input Format

---

RTRV-ALM-LINK: [a]:b:[c]::[d],[e],[f],[g],,,,,,;

## Input Parameters (Continued)

---

e        **Condition Type (CTYPE):**  
         { EXTERR, INT, FRD, ALL }

**Default:** ALL  
                 **Initial System Value:** None  
                 **Addressing Rules:** None

Specifies the type of alarm condition.

- **EXTERR** - indicates error detected external to the DACS IV-2000 system.
- **FRD** - indicates security violation has occurred.
- **INT** - indicates Internal hardware fault or failure detected.
- **ALL** - indicates all near-end conditions are retrieved.

f        **Service Affecting (SRVEFF):**  
         { NSA }

**Default:** NSA  
                 **Initial System Value:** None  
                 **Addressing Rules:** None

Specifies whether non-service-affecting (**NSA**) alarms are to be retrieved.

g        **Location (LOCN):**  
         { NEND }

**Default:** NEND  
                 **Initial System Value:** None  
                 **Addressing Rules:** None

Specifies the location where the condition is associated with.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.

# RTRV-ALM-LINK

## RESPONSES

---

### Normal Response

---

If none of the specified alarm priorities are active on the specified links, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

If one or more of the specified alarm priorities is active on one or more of the specified links, the normal response is (one line is generated for each active alarm condition, if a link has more than one active alarm condition, multiple lines appears):

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
" h:i,j,k,,,l"
.
.
.
" h:i,j,k,,,l"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
m
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- h Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Specifies the individual administrative or data link.
- i Notification Code (NTFCNCDE):**  
{ MN }
- Specifies the notification code of the alarm condition.
- **MN** - indicates Minor Alarm.
- j Condition Type (CTYPE):**  
{ EXTERR, INT, FRD }
- Specifies the type of alarm condition. A list of condition types, along with their definitions, is given in the **Condition Types** appendix.

**Output Format**

---

TID YY-MM-DD HH:MM:SS  
M c "h:i,j,k,,,l" (Normal Response)  
m (Error Response)

**Output Parameters (Continued)**

---

- k **Service Affecting (SRVEFF):**  
{ NSA }  
Specifies whether this alarm condition is non-service-affecting (**NSA**).
- l **Location (LOCN):**  
{ NEND }  
Specifies the location of the retrieved link condition.
- m **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }  
When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |

# RTRV-ATTR-{EC1|T1|T2|T3|VT1}

## INPUT FORMAT

---

RTRV-ATTR-{EC1|T2|VT1}: [a]:b:[c]::[d],[e],,,,,,,,,;

RTRV-ATTR-{T1|T3}: [a]:b:[c]::[d],[e],[f],,,,,,,,,;

**Command Name:** Retrieve Attribute {EC1|T1|T2|T3|VT1}

**Command Category:** Maintenance

**User Privilege Code (UCFC/UCAL):** M1

**Abortable:** Yes

**REPT DBCHG Message:** No

## Purpose

---

**(EC1|VT1):** This command retrieves the attributes (alarm levels) of failure conditions associated with (EC-1|VT1.5) Ports within the system.

**(T1):** This command retrieves the attributes (alarm levels) of failure conditions associated with DS1 Ports within the system, and retrieves the attributes (alarm levels) of failure conditions for the far-end DS1 facility associated with a MUX2 circuit packs provisioned to report far-end failures.

**(T2):** Entering this command retrieves the attributes (alarm levels) of DS2 failure conditions for the far-end DS3 facility associated with a MUX2 circuit pack provisioned to report far-end failures.

**(T3):** This command retrieves the attributes (alarm levels) of failure conditions associated with DS3 Ports within the system, and retrieves the attributes (alarm levels) of failure conditions for the far-end DS3 facility associated with a MUX2 circuit pack provisioned to report far-end failures.

**Notes:** If any of the ports that are addressed are not provisioned, the command is completed, with no data retrieved from those ports.

If any of the ports that are addressed are not in-service, the command is completed, with no data retrieved from those ports.

■ **Additional Notes for T2**

This command is denied with an error code of *SNPV* (status, not provisioned) unless the remote multiplexer type is set to TR9 with the *ED-T3* command.

■ **Additional Notes for T3**

If the provisioned Code Name for the MUX circuit pack is set to *INIT*, all relevant alarm condition codes for both MUX1 and MUX2 circuit packs are retrieved. If the provisioned Code Name is set to *AKM68* (MUX2), only those condition codes associated with a MUX2 circuit pack are retrieved. If the provisioned Code Name is set to *AKM52* (MUX1), only those condition codes associated with a MUX1 circuit packs are retrieved.



# RTRV-ATTR-{EC1|T1|T2|T3|VT1}

## Input Format

RTRV-ATTR-{EC1|T2|VT1}: [a]:b:[c]::[d],[e],,,,,,,,,;  
 RTRV-ATTR-{T1|T3}: [a]:b:[c]::[d],[e],[f],,,,,,,,,;

## Input Parameters (Continued)

d **Notification Code (NTFCNCDE):**  
 { MJ, MN, NA, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the notification code to be retrieved.

- **MJ** - indicates Major Alarm.
- **MN** - indicates Minor Alarm.
- **ALL** - indicates both Major and Minor Alarms.
- **NA** - indicates that in the event of an alarm condition, no audible or visual alarm indication is made at the local office. However, an autonomous alarm message is generated with this value.

e **Condition Type (CTYPE):**  
**(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF, ALL }  
**(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC, ALL }  
**(T2):** { OOF, ALL }  
**(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, INC, YEL, SBITFAIL, DS3FRMTMISMTCH, ALL }  
**(VT1):** { LOP, AISP, YEL, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the type of alarm condition. The following table identifies the alarm conditions associated with the near- and far-end.

Signal Type	Condition Type(s)	
	Near-End	Far-End
T1	LOS, LOF, T-BER, DS1-AIS, YEL	INC, MINC
T2	OOF	OOF
T3 (MUX1)	T-BER, LOS, OOF, AIS	
T3 (MUX2)	T-BER, LOS, OOF, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, DS3FRMTMISMTCH	INC, OOF, AIS, IDLE, YEL, SBITFAIL
EC1	LOS, LOF, LOP, T-BERL, SLMF, AISL, AISP, YEL, FERF	
VT1	LOP, AISP, YEL	

- **AIS** - indicates Alarm Indication Signal detected.
- **AISFRAMED** - indicates a Framed Alarm Indication Signal.

## Input Format

---

RTRV-ATTR-{EC1|T2|VT1}: [a]:b:[c]::[d],[e],,,,,,,,,;  
RTRV-ATTR-{T1|T3}: [a]:b:[c]::[d],[e],[f],,,,,,,,,;

## Input Parameters (Continued)

---

- **AISUNFRAMED** - indicates an Unframed Alarm Indication Signal.
- **AISL** - indicates Line Alarm Indication Signal.
- **AISP** - indicates Path Alarm Indication Signal.
- **ALLDS2SOOF** - indicates all DS2s in a DS3 signal are Out of Frame.
- **DS1-AIS** - indicates DS1 Alarm Indication Signal detected.
- **DS3FRMTMISMTCH** - indicates DS3 Format Mismatch detected.
- **FERF** - indicates Far End Receive Failure.
- **IDLE** - indicates Idle.
- **INC** - indicates incoming DS3 or DS1 failure (for far-end).
- **LOF** - indicates Loss of Frame.
- **LOP** - indicates Loss of Pointer.
- **LOS** - indicates Loss of Signal.
- **MINC** - indicates Multiple Incoming failures (for far-end).
- **OOF** - indicates Out of Frame.
- **SBITFAIL** - indicates SBIT communications protocol failure (for far-end).
- **SLMF** - indicates Signal Label Match Failure.
- **T-BER** - indicates Bit Error Rate Threshold exceeded.
- **T-BERL** - indicates Line Soft Bit Error Rate Threshold exceeded.
- **YEL** - indicates Yellow Signal (far-end for T3).
- **ALL** - indicates either all near-end or all far-end failure conditions, depending upon the value specified in the **LOCN** parameter (f), for (T1|T2|T3) Signals, or all near-end failure conditions, for (STS-1|VT1.5) Signals.

f

### Location (LOCN):

(T1|T3): { NEND, FEND }

(EC1|T2|VT1): { <not used> }

**Default:** NEND

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location associated with the condition.

**(T1):** The value **FEND** is only valid when the **PORT** parameter (b) is **MUX- {1-32} - {1-31}**.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve active conditions associated with far-end equipment in the DACS IV-2000 database.

## RTRV-ATTR-{EC1IT1IT2IT3IVT1}

### RESPONSES

---

#### Normal Response

---

If none of the specified attributes apply to the specified ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

If one or more of the specified attributes applies to one or more of the specified ports, the normal response is:

#### (EC1IT2IVT1):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE */
" g:h,i "
.
.
.
" g:h,i "
;
```

#### (T1IT3):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,LOCN */
" g:h,i,j "
.
.
.
" g:h,i,j "
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
k
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

**c**      **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

## Output Format

---

	TID YY-MM-DD HH:MM:SS	
M	c	
	"g:h,i"	(Normal Response)
	"g:h,i,j"	(Normal Response)
	k	(Error Response)

## Output Parameters (Continued)

---

- g Port (PORT):**  
(EC1): EC-1 Port: { {1-32}-{1-15} }  
(T1): DS1 Port/DS3 Port: { {1-32}-{1-31}-{1-28}, MUX-{1-32}-{1-31},  
DS1GRP-{1-32}-{1-31} }  
(T2IT3): DS3 Port: { {1-32}-{1-31}-{1-28} }  
(VT1): VT1.5 Port/EC-1 Port: { {1-32}-{1-15}-{1-28} }  
Specifies the individual port from the range specified in the input **PORT** parameter (b).  
(T2): Specifies the DS2 attributes of the DS3 Port.
- h Notification Code (NTFCNCDE):**  
{ MJ, MN, NA }  
Specifies the notification code of the alarm condition.
- **MJ** - indicates Major Alarm.
  - **MN** - indicates Minor Alarm.
  - **NA** - indicates No Alarm.
- i Condition Type (CTYPE):**  
(EC1): { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF }  
(T1): { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC }  
(T2): { OOF }  
(T3): { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE,  
ALLDS2SOOF, INC, YEL, SBITFAIL, DS3FRMTMISMATCH }  
(VT1): { LOP, AISP, YEL }  
Specifies the type of conditions retrieved. A list of conditions, along with their definition, is given in the **Condition Types** appendix.
- j Location (LOCN):**  
(T1IT3): { NEND, FEND }  
(EC1IT2IVT1): { <not used> }  
Specifies the location associated with the condition.

## RTRV-ATTR-{EC1IT1IT2IT3IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h,i" (Normal Response)  
"g:h,i,j" (Normal Response)  
k (Error Response)

### Output Parameters (Continued)

---

k **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENRE	Equipment not recognized (for example, SONET equipment in range of DS3 ports)
IDNV	DS1 Port is <b>MUX</b> -{1-32}-{1-31} but the <b>LOCN</b> parameter (f) is <b>NEND</b>
IDNV	DS1 Port is not <b>MUX</b> -{1-32}-{1-31} but the <b>LOCN</b> parameter (f) is <b>FEND</b>
IDNV	Any of the input parameters are invalid
IDRG	Port requested is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNIS	All addressed ports are not in-service
SDNC	All addressed ports are not provisioned as EC-1 Port
SNPV	A condition type of <b>AISFRAMED</b> , <b>AISUNFRAMED</b> , <b>IDLE</b> , or <b>ALLDS2SOOF</b> is specified and none of the specified MUX circuit packs have the provisioned Code Name set to <b>AKM52</b> (MUX1) or <b>INIT</b>
SNPV	All addressed ports are not provisioned
SNPV	The remote multiplexer type is not set to TR9
SNVS	MC is not in service
SNVS	Interface module is not provisioned
SNVS	Port is not on a MUX/SMUX circuit pack
SNPV	A Condition Type of <b>AISFRAMED</b> , <b>AISUNFRAMED</b> , <b>IDLE</b> , or <b>ALLDS2SOOF</b> is specified and none of the specified DS3 interface ports have the provisioned Code Name set to <b>AKM68</b> (MUX2) or <b>INIT</b>
SNPV	A Condition Type of <b>AIS</b> is specified and none of the specified DS3 interface ports have the provisioned Code Name set to <b>AKM52</b> (MUX1) or <b>INIT</b>

## RTRV-ATTR-EQPT

### INPUT FORMAT

---

RTRV-ATTR-EQPT: [a]:b:[c]::[d],[e],f;

**Command Name:** Retrieve Attribute Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the attributes (alarm levels) of failure conditions for:

- Equipment within the DACS IV-2000.
- DACS IV-2000 Synchronizer equipment.
- Far-end equipment associated with a MUX2 circuit packs provisioned to report these failures.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CLKGN-{0,1}, SWCS-{1-32},  
          SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P},  
          DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4},  
          PWRA-{1-4}, PWRE-{1-32}-{1,2}, POWERE-SW-{1,2}, PWRP-{1,2},  
          PWRG-{1,2}, SYNCN, TB-{0,1}, DPLL-{0,1}, TX-{1,2}, FAN,  
          SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1}, ALL }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple equipment can be specified using full multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location. The value MUX- {1-32}- {1-31} is only valid when LOCN parameter (f) is FEND.

# RTRV-ATTR-EQPT

## Input Format

---

RTRV-ATTR-EQPT:[a]:b:[c]::[d],[e],f;

## Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Notification Code (NTFCNCDE):**  
          { MJ, MN, NA, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the notification code to be retrieved.

- **MJ** - indicates a Major Alarm
- **MN** - indicates a Minor Alarm
- **NA** - indicates No Alarm.
- **ALL** - indicates both Major and Minor Alarms.

e        **Condition Type (CTYPE):**  
          { ACPWR, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBND, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type of conditions to be retrieved. **ACPWR**, **COM**, **DS1IF**, and **MUX** are far-end condition types only.

- **ACPWR** - indicates AC Power Failure detected.
- **BKMEMS** - indicates secondary nonvolatile backup failure.
- **COM** - indicates Common equipment failure detected.
- **CONTBUS** - indicates Control bus failure detected.
- **DS1IF** - indicates DS1 Interface equipment failure detected.
- **DTLCH** - indicates Data Latch Error detected.
- **EOR** - indicates End-of-Range Error detected.

## Input Format

RTRV-ATTR-EQPT: [a]:b:[c]::[d],[e],f;

## Input Parameters (Continued)

- **EXJIT** - indicates Excessive Jitter detected.
- **EXPHR** - indicates Excessive Phase Error detected.
- **FRQOF** - indicates Frequency Offset Error detected.
- **FSNLN** - indicates Frequency Synthesizer Loss of Energy detected.
- **FSTO** - indicates PLL Fast Start Time-out.
- **ICTLR** - indicates Interrupt Controller Error detected.
- **IHRER** - indicates Interrupt Holding Register Error detected.
- **IMPROPBLK** - indicates Improper blank circuit pack detected.
- **IMPROPRMVL** - indicates Improper removal detected.
- **INHSWPR** - indicates Switch to protection equipment inhibited.
- **INHSWWKG** - indicates Switch to working equipment inhibited.
- **INT** - indicates Internal hardware fault or failure detected.
- **LERDF** - indicates Line Error Detector Failure detected.
- **LOS** - indicates Loss of signal detected.
- **MAN** - indicates Manually removed from service.
- **MUX** - indicates Multiplex equipment failure detected.
- **OOF** - indicates Out of Frame detected.
- **PFLCH** - indicates Phase/Frequency Readable Output Latch Error detected.
- **PHSTP** - indicates Phase Step Error detected.
- **PSHLN** - indicates Phase Shifter Output Loss of Energy detected.
- **RAMER** - indicates RAM Error detected.
- **ROMER** - indicates ROM Error detected.
- **RTV** - indicates Real-Time Violation detected.
- **SYNCCLK0** - indicates Detected failure is in Side 0 Clock Hardware
- **SYNCCLK1** - indicates Detected failure is in Side 1 Clock Hardware
- **SYNCFRNG** - indicates Synchronizer has made a transition into free-running mode.
- **SYNCFST** - indicates Synchronizer has made a transition into fast-start mode.
- **SYNCHLDOVR** - indicates Synchronizer has made a transition into holdover mode.

## RTRV-ATTR-EQPT

### Input Format

---

RTRV-ATTR-EQPT: [a]:b:[c]::[d],[e],f;

### Input Parameters (Continued)

---

- **SYPLN** - indicates Sync Pulse Generator Loss of Energy detected.
- **TBCOLD** - indicates Time Base Oven Cold
- **TBIOER** - indicates Time Base Communication Error detected.
- **TBLEN** - indicates Time Base Strobe Loss of Energy detected.
- **TBNDF** - indicates Time Base Strobe Energy Detector Failure
- **TODC** - indicates Time-of-Day Clock
- **TRBER** - indicates High Bit-Error Rate on a Synchronization Timing Reference detected.
- **TRMNER** - indicates Minor Bit-Error Rate on a Synchronization Timing Reference detected.
- **URTER** - indicates UART Error detected.
- **X1LEN** - indicates Loss of Energy on 1 ms Synchronizer Crosscouple detected.
- **X3LEN** - indicates Loss of Energy on 30 ms Synchronizer Crosscouple detected.
- **XCOOL** - indicates Synchronizer Crosscouple Out-of-Lock Error detected.
- **XCRTV** - indicates Synchronizer Crosscouple Real-Time Violation Error detected.
- **XCSUM** - indicates Synchronizer Crosscouple Summary Error detected.
- **XFLRG** - indicates Synchronizer Crosscouple Fast Lock Range Error detected.
- **XFQOF** - indicates Synchronizer Crosscouple Frequency Offset Error detected.
- **XLKDN** - indicates Synchronizer Crosscouple Communication Link Error detected.
- **ALL** - indicates all condition types.

## Input Format

---

RTRV-ATTR-EQPT: [a]:b:[c]::[d],[e],f;

## Input Parameters (Continued)

---

f        **Location (LOCN):**  
         { NEND, FEND, ALL }

**Default:** NEND

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location where the condition is associated with. The value **FEND** is only valid when the **LOC** parameter (b) is **MUX- {1-32} - {1-31}**.

- **NEND** - indicates retrieve the conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve the active conditions associated with far-end equipment in the DACS IV-2000 database.
- **ALL** - indicates both **NEND** and **FEND**. The **FEND** value is only valid when **LOC** parameter (b) is set to **MUX- {1-32} - {1-31}**. If **LOC** parameter (b) is set to a value other than **MUX- {1-32} - {1-31}** and **ALL** is specified, only **NEND** values are retrieved.

## RTRV-ATTR-EQPT

### RESPONSES

---

#### Normal Response

---

If none of the specified attributes apply to the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

If one or more of the specified attributes applies to one or more of the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,LOCN */
" g:h,i,j "
.
.
.
" g:h,i,j "
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
k
{ "<parsable text string>" }
;
```

#### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CLKGN-{0,1}, SWCS-{1-32},  
          SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P},  
          DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4},  
          PWRA-{1-4}, PWRE-{1-32}-{1,2}, POWERE-SW-{1,2}, PWRP-{1,2},  
          PWRG-{1,2}, SYNCN, TB-{0,1}, DPLL-{0,1}, TX-{1,2}, FAN,  
          SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1} }

Specifies the individual equipment location from the range specified in the input **LOC** parameter (b).

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h,i,j" (Normal Response)  
k (Error Response)

### Output Parameters (Continued)

---

**h Notification Code (NTFCNCDE):**  
{ MJ, MN, NA }

Specifies the notification code of the alarm condition.

- **MJ** - indicates a Major Alarm.
- **MN** - indicates a Minor Alarm.
- **NA** - indicates No Alarm.

**i Condition Type (CTYPE):**  
{ ACPWR, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBND, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN }

Specifies a type of condition associated with the LOC parameter (g). A list of condition types along with their definitions is given in **Condition Types** appendix.

**j Location (LOCN):**  
{ NEND, FEND }

Specifies the location where the condition is associated with.

**k Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

# RTRV-CMD-STAT

## INPUT FORMAT

---

RTRV-CMD-STAT: [a] :: [b] :: [c] ;

**Command Name:** Retrieve Command Status  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the current status of previously entered commands.

**Notes:** This command does not follow the normal system rules for single threading (that is, it is executed as soon as it is received, ahead of any commands that were entered before it). This is necessary for the command to perform its designed function.

This command is allowed when the MC is in an out-of-service state.

One instance of the **RTRV-CMD-STAT** command can be executed even when the input command queue is full.

The commands waiting in the input queue for execution are displayed in the order they are executed. A fixed priority level of 3 is assigned to those commands internally generated by the system.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

RTRV-CMD-STAT: [a] :: [b] :: [c] ;

### Input Parameters (Continued)

- c      **Command Correlation Tag (CMDCTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, ALL }

**Default:** ALL, retrieves all commands currently waiting to execute within the DACS IV-2000.

**Initial System Value:** None

**Addressing Rules:** None

Specifies the CTAG of the single command whose status is being requested. It is possible for you to enter more than one command with the same CTAG. If this happens, and the RTRV-CMD-STAT is issued with this CTAG, all of the commands that match are retrieved.

The string ALL is treated specially in this parameter. If any of the commands waiting to execute happens to have a CTAG of ALL, giving this command with this parameter set to ALL, retrieves all of the commands (not just the one with the CTAG of ALL).

## RTRV-CMD-STAT

### RESPONSES

---

#### Normal Response

---

If no commands are in execution and no **CMDCTAG** parameter (c) was given the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
;
```

If the status of one or more commands is returned, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
/*  CMDCTAG, INPUT_CMD, CMDSTAT */
   "c,d,e"
   .
   .
   .
   "c,d,e"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
   f
[  "<parsable text string>"
;
```

#### Output Parameters

---

**b**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**c**        **Command Correlation Tag (CMDCTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS> }

Specifies the CTAG of the single command whose status is being requested. It is possible for you to enter more than one command with the same CTAG. If this happens, and the **RTRV-CMD-STAT** is issued with this CTAG, all of the commands that match are retrieved.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M b (Normal Response)  
"c, d, e" (Error Response)  
f

## Output Parameters (Continued)

---

- d Input Command (INPUT\_CMD):**  
{ <valid Command Verb>, INTERNAL, INTERNAL-{000-999} }
- Specifies the input command associated with the input **CMDCTAG** parameter (c). The domain is all valid command verbs for the DACS IV-2000 (the modifiers are separated by dashes, as in the input commands) or an internally queued command.
- Input commands are generated either by you or internally by the system (that is, autonomously). When you execute a **RTRV-CMD-STAT** while an autonomous command is being processed, an in progress message of the form **INTERNAL- (+ 3 digits)** (the 3 digits are optional) appears to let you know that an internal command is being processed.
- e Command Status (CMDSTAT):**  
{ IP, UNKN, WTRSCE }
- Specifies the status of the command identified by the input **CMDCTAG** parameter (c).
- **IP** - indicates in progress.
  - **UNKN** - indicates unknown (that is, can't find the command in the system).
  - **WTRSCE** - indicates waiting for resources (in the command queue).
- f Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IISP   | Syntax or punctuation error in entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |

# RTRV-COND-{EC1|T1|T2|T3|VT1}

## INPUT FORMAT

---

RTRV-COND- {T1|T2|T3} : [a] : b : [c] : : [d] , [e] , , , , , , , ;  
RTRV-COND- {EC1|VT1} : [a] : b : [c] : : [d] , , , , , , , ;

**Command Name:** Retrieve Condition {EC1|T1|T2|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

## Purpose

---

**(EC1):** This command retrieves the current error and inhibit loopback conditions associated with EC-1 Ports.

**(T1):** This command retrieves the current error conditions associated with DS1 failures, retrieves inhibit loopback conditions on DS1IF and MUX circuit packs within the DACS IV-2000, and retrieves the current error conditions for far-end DS1 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures.

**(T2):** This command retrieves error conditions associated with DS2 failures on MUX2 circuit packs within the DACS IV-2000 and retrieves the current error conditions for far-end DS2 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures.

**(T3):** This command retrieves the current error conditions associated with DS3 failures and retrieves the current error conditions for far-end DS3 facility failures associated with a MUX2 circuit pack provisioned to report far-end failures.

**(VT1):** This command retrieves the current error and inhibit loopback conditions associated with VT1.5 tributaries within an STS-1 signal.

**Notes:** When the **LOCN** parameter (e) is set to **FEND**, this command is denied with an error code of **SNPV** (status, not provisioned) unless the remote multiplexer type parameter in the **ED-T3** command is set to **TR9**.

## Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## Input Format

---

RTRV-COND-{T1|T2|T3}: [a]:b:[c]::[d],[e],,,,,,;  
RTRV-COND-{EC1|VT1}: [a]:b:[c]::[d],,,,,,;

## Input Parameters (Continued)

---

- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32}, ALL }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, SWIF-{1-32}-{1-8}, UNIT-{1-32},  
                          MUX-{1-32}-{1-31}, ALL }  
          **(T2):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32}, ALL }  
          **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32}, ALL }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15},  
                          ALL }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported, and if all of the ports specified are on unprovisioned circuit packs, the command is denied.

**(EC1|VT1):** Specifies the VT1.5 tributary of an STS-1 signal or an EC-1 Port within the system. Only conditions on near-end (VT1.5|EC-1) equipment can be retrieved.

**(T1):** Specifies the DS1 Port, or all of the DS1 Ports associated with the given interface module or SWIF or MUX circuit packs. The value MUX- {1-32}- {1-31} is only valid when the LOCN parameter (e) is FEND.

**(T2|T3):** Specifies the DS3 Port, or all of the DS3 Ports associated with the specified DS3 interface module.

- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-COND-{EC1|T1|T2|T3|VT1}

### Input Format

---

RTRV-COND-{T1|T2|T3}: [a]:b:[c]::[d],[e],,,,,,;  
RTRV-COND-{EC1|VT1}: [a]:b:[c]::[d],,,,,,;

### Input Parameters (Continued)

---

- d      **Condition Type (CTYPE):**  
      **(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF, INHEC1LPBK,  
            ALL }  
      **(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC, INHDS1LPBK,  
            INHDS1FLPBK, ALL }  
      **(T2):** { OOF, ALL }  
      **(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE,  
            ALLDS2SOOF, INC, YEL, SBITFAIL, INHDS3LPBK, INHDS3FLPBK,  
            DS3FRMTMISMTCH, ALL }  
      **(VT1):** { LOP, AISP, YEL, INHVT1LPBK, ALL }
- Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type of conditions retrieved.

- **AIS** - indicates Alarm Indication Signal detected.
- **AISFRAMED** - indicates a Framed Alarm Indication Signal.
- **AISUNFRAMED** - indicates an Unframed Alarm Indication Signal.
- **AISL** - indicates Line Alarm Indication Signal.
- **AISP** - indicates Path Alarm Indication Signal.
- **ALLDS2SOOF** - indicates all DS2s in a DS3 signal are Out of Frame.
- **DS1-AIS** - indicates DS1 Alarm Indication Signal detected.
- **DS3FRMTMISMTCH** - indicates DS3 Format Mismatch detected.
- **FERF** - indicates Far End Receive Failure.
- **IDLE** - indicates Idle.
- **INC** - indicates incoming DS1 or DS3 failure.
- **INHDS1FLPBK** - indicates inhibit response to far-end DS1 loopback control.
- **INHDS3FLPBK** - indicates inhibit response to far-end DS3 loopback control.
- **INHDS1LPBK** - indicates inhibit DS1 loopback on DS1 interface, MUX, or SMUX circuit pack.
- **INHDS3LPBK** - indicates inhibit DS1 loopback on MUX circuit pack.
- **INHEC1LPBK** - indicates inhibit STS-1 Loopback on SMUX circuit pack.
- **INHVT1LPBK** - indicates inhibit STS-1 Loopback on SMUX circuit pack.
- **LOF** - indicates Loss of Frame.
- **LOP** - indicates Loss of Pointer.
- **LOS** - indicates Loss of Signal.

### Input Format

RTRV-COND- {T1|T2|T3} : [a] : b : [c] :: [d], [e], , , , , , , ;  
RTRV-COND- {EC1|VT1} : [a] : b : [c] :: [d], , , , , , , ;

### Input Parameters (Continued)

- **MINC** - indicates Multiple Incoming failures.
- **OOF** - indicates Out of Frame.
- **SBITFAIL** - indicates SBIT communications protocol failure.
- **SLMF** - indicates Signal Label Match Failure.
- **T-BER** - indicates Bit Error Rate Threshold exceeded.
- **T-BERL** - indicates Line Soft Bit Error Rate Threshold exceeded.
- **YEL** - indicates Yellow Signal.
- **ALL** - indicates either all near-end or all far-end failure conditions, depending upon the value specified in the **LOCN** parameter (e), for (T1|T2|T3) Signals, or all near-end failure conditions, for (STS-1|VT1.5) Signals.

e **Location (LOCN):**  
(T1|T2|T3): { NEND, FEND }  
(EC1|VT1): { <not used> }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location where the condition is associated with.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve active conditions associated with far-end equipment in the DACS IV-2000 database.

# RTRV-COND-{EC1IT1IT2IT3IVT1}

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

**(EC1IVT1):** If one or more of the specified conditions is active on one or more of the specified ports, the normal response is (one line is generated for each active condition; if a port has more than one active alarm condition, multiple lines appear for that port):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,, */
"f:h,i,j,,,"
.
.
.
"f:h,i,j,,,"
;
```

**(T1IT3):** If one or more of the specified conditions is active on one or more of the specified ports, the normal response is (one line is generated for each active condition; if a port has more than one active alarm condition, multiple lines appear for that port):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"f:h,i,j,,,"k"
.
.
.
"f:h,i,j,,,"k"
;
```

**(T2):** If one or more of the specified conditions is active on one or more of the specified DS3 ports, the normal response is (one line is generated for each active condition on each T2 tributary; if a DS3 port has more than one active alarm condition, multiple lines appear for that DS3 port):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC,TRIB:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"f,g:h,i,j,,,"k"
.
.
.
"f,g:h,i,j,,,"k"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
l
[ "<parsable text string>"]
;
```

## Output Parameters

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- f**        **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(T2IT3):** DS3 Port: { {1-32}-{1-31} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the individual port from the range specified in the input **LOC** parameter (b).
- g**        **DS2 Tributary (TRIB):**  
          **(T2):** { 1-7 }  
          **(EC1IT1IT3IVT1):** { <not used> }
- Specifies the DS2 tributary associated with the alarm condition.
- h**        **Notification Code (NTFCNCDE):**  
          { MJ, MN, NA }
- Specifies the notification code of the alarm condition.
- **MJ** - indicates a Major Alarm.
  - **MN** - indicates a Minor Alarm.
  - **NA** - indicates No Alarm.
- i**        **Condition Type (CTYPE):**  
          **(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF, INHEC1LPBK }  
          **(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC, INHDS1LPBK, INHDS1FLPBK }  
          **(T2):** { OOF }  
          **(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, INC, YEL, SBITFAIL, INHDS3LPBK, INHDS3FLPBK, DS3FRMTMISMTCH }  
          **(VT1):** { LOP, AISP, YEL, INHVT1LPBK }
- Specifies the type of conditions retrieved. A list of condition types along with their definitions is given in the **Condition Types** appendix.
- j**        **Service Affecting (SRVEFF):**  
          { SA, NSA }
- Specifies if this condition is service-affecting (**SA**) or non-service-affecting (**NSA**).
- k**        **Location (LOCN):**  
          **(T1IT2IT3):** { NEND, FEND }  
          **(EC1IVT1):** { <not used> }
- Specifies the location of the retrieved facility condition.

## RTRV-COND-{EC1IT1IT2IT3IVT1}

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
M  c
   "f:h,i,j,,, "          (Normal Response)
   "f:h,i,j,,,k"         (Normal Response)
   "f,g:h,i,j,,,k"       (Normal Response)
  l                       (Error Response)
```

### Output Parameters (Continued)

---

I      **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	DS1 port is <b>MUX</b> - {1-32} - {1-31} but the <b>LOCN</b> parameter (e) is <b>NEND</b>
IDNV	DS1 port is not <b>MUX</b> - {1-32} - {1-31} but the <b>LOCN</b> parameter (e) is <b>FEND</b>
IDNV	The input range value is invalid
IDRG	The input circuit pack number is out of range (NEND or FEND)
IISP	Syntax or punctuation error in entering input command
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	Remote multiplexer type is not FEAC or TR9
SNPV	Remote multiplexer type is not FEAC when the <b>LOCN</b> parameter (e) is <b>FEND</b>
SNPV	Remote multiplexer type is not TR9 (FEND)
SNPV	The input request is not MUX2 circuit pack
SNPV	MUX or SMUX circuit pack is not provisioned
SNVS	Specified SWIF circuit pack is used to address a slot having a MUX/SMUX circuit pack
SNVS	Interface module is not provisioned
SNVS	Interface module is not a DS1 interface or DS1 Interface-P module
SNVS	MC is not in service
SNVS	MUX or SMUX circuit pack is not assigned
SNVS	Remote multiplexer is not assigned
SNVS	The input request is a PMGR circuit pack

## RTRV-COND-EQPT

### INPUT FORMAT

---

RTRV-COND-EQPT: [a]:b:[c]::[d],[e];

**Command Name:** Retrieve Condition Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves error conditions associated with equipment failures of the system and retrieves the current error conditions for far-end equipment failures associated with a MUX2 circuit packs provisioned to report these failures.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CLKGN-{0,1}, SWCS-{1-32},  
          SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P},  
          DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4},  
          PWRA-{1-4}, PWRE-{1-32}-{1,2}, POWERE-SW-{1,2}, PWRP-{1,2},  
          PWRG-{1,2}, SYNCN, TB-{0,1}, DPLL-{0,1}, TX-{1,2}, FAN,  
          SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1}, ALL }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple equipment can be specified using full multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location. The value **MUX-{1-32}-{1-31}** is only valid when the **LOCN** parameter (e) is **FEND**. The value **SYNCN** addresses alarm conditions not associated with a single equipment location.

## RTRV-COND-EQPT

### Input Format

---

RTRV-COND-EQPT: [a]:b:[c]::[d],[e];

### Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Condition Type (CTYPE):**  
          { ACPWR, ALLREFFAIL, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBNDF, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the type of conditions to be retrieved. **ACPWR**, **COM**, **DS1IF**, and **MUX** are far-end condition types only.

- **ACPWR** - indicates AC Power Failure detected.
- **ALLREFFAIL** - indicates failure of all synchronizer timing references.
- **BKUPMEMS** - indicates secondary nonvolatile backup failure.
- **COM** - indicates Common equipment failure detected.
- **CONTBUS** - indicates Control bus failure detected.
- **DS1IF** - indicates DS1 Interface equipment failure detected.
- **DTLCH** - indicates Data Latch Error detected.
- **EOR** - indicates End-of-Range Error detected.
- **EXJIT** - indicates Excessive Jitter detected.
- **EXPHR** - indicates Excessive Phase Error detected.
- **FRQOF** - indicates Frequency Offset Error detected.
- **FSNLN** - indicates Frequency Synthesizer Loss of Energy detected.
- **FSTO** - indicates PLL Fast Start Time-out.
- **ICTLR** - indicates Interrupt Controller Error detected.
- **IHRER** - indicates Interrupt Holding Register Error detected.
- **IMPROPBLK** - indicates Improper blank circuit pack detected.

## Input Format

RTRV-COND-EQPT: [a]:b:[c]::[d],[e];

## Input Parameters (Continued)

- **IMPROPRMVL** - indicates Improper removal detected.
- **INHSWPR** - indicates Switch to protection equipment inhibited.
- **INHSWWKG** - indicates Switch to working equipment inhibited.
- **INT** - indicates Internal hardware fault or failure detected.
- **LERDF** - indicates Line Error Detector Failure detected.
- **LOS** - indicates Loss of signal detected.
- **MAN** - indicates Manually removed from service.
- **MUX** - indicates Multiplex equipment failure detected.
- **OOF** - indicates Out of Frame detected.
- **PFLCH** - indicates Phase/Frequency Readable Output Latch Error detected.
- **PHSTP** - indicates Phase Step Error detected.
- **PSHLN** - indicates Phase Shifter Output Loss of Energy detected.
- **RAMER** - indicates RAM Error detected.
- **ROMER** - indicates ROM Error detected.
- **RTV** - indicates Real-Time Violation detected.
- **SYNCCLK0** - indicates Detected failure is in Side 0 Clock Hardware
- **SYNCCLK1** - indicates Detected failure is in Side 1 Clock Hardware
- **SYNCFRNG** - indicates Synchronizer has made a transition into free-running mode.
- **SYNCFST** - indicates Synchronizer has made a transition into fast-start mode.
- **SYNCHLDOVR** - indicates Synchronizer has made a transition into holdover mode.
- **SYPLN** - indicates Sync Pulse Generator Loss of Energy detected.
- **TBCOLD** - indicates Time Base Oven Cold
- **TBIOER** - indicates Time Base Communication Error detected.
- **TBLEN** - indicates Time Base Strobe Loss of Energy detected.
- **TBNDF** - indicates Time Base Strobe Energy Detector Failure
- **TODC** - indicates Time-of-Day Clock

## RTRV-COND-EQPT

### Input Format

---

RTRV-COND-EQPT: [a]:b:[c]::[d],[e];

### Input Parameters (Continued)

---

- **TRBER** - indicates High Bit-Error Rate on a Synchronization Timing Reference detected.
- **TRMNER** - indicates Minor Bit-Error Rate on a Synchronization Timing Reference detected.
- **URTER** - indicates UART Error detected.
- **X1LEN** - indicates Loss of Energy on 1 ms Synchronizer Crosscouple detected.
- **X3LEN** - indicates Loss of Energy on 30 ms Synchronizer Crosscouple detected.
- **XCOOL** - indicates Synchronizer Crosscouple Out-of-Lock Error detected.
- **XCRTV** - indicates Synchronizer Crosscouple Real-Time Violation Error detected.
- **XCSUM** - indicates Synchronizer Crosscouple Summary Error detected.
- **XFLRG** - indicates Synchronizer Crosscouple Fast Lock Range Error detected.
- **XFQOF** - indicates Synchronizer Crosscouple Frequency Offset Error detected.
- **XLKDN** - indicates Synchronizer Crosscouple Communication Link Error detected.
- **ALL** - indicates either all near-end or all far-end failure conditions, depending upon the value specified in the **LOCN** parameter (g).

e **Location (LOCN):**  
{ FEND, NEND, ALL }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location where the condition is associated with. The value **FEND** is only valid when the **LOC** parameter (b) is **MUX- {1-32} - {1-31}**.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.
- **FEND** - indicates retrieve active conditions associated with far-end equipment in the DACS IV-2000 database.
- **ALL** - indicates both **NEND** and **FEND**. The **FEND** value is only valid when **LOC** parameter (b) is set to **MUX- {1-32} - {1-31}**. If **LOC** parameter (b) is set to other than **MUX- {1-32} - {1-31}** and **ALL** is specified, only **NEND** values are retrieved.

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

If one or more of the specified conditions is active on one or more of the specified equipment, the normal response is (one line is generated for each active condition, if the specified equipment has more than one active alarm condition, multiple lines appear):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"f:g,h,i,,,j"
.
.
"f:g,h,i,,,j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
k
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- f Equipment Location (LOC):**  
{ MC, CC-{0,1}, PRI-{1,2}, SEC, ECI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, PWRA-{1-4}, PWRE-{1-32}-{1,2}, POWERE-SW-{1,2}, PWRF-{1,2}, PWRG-{1,2}, SYNCN, TB-{0,1}, DPLL-{0,1}, TX-{1,2}, FAN, SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1} }
- Specifies the individual equipment from the range specified in the input LOC parameter (b).

# RTRV-COND-EQPT

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"f:g,h,i,,,j" (Normal Response)  
k (Error Response)

## Output Parameters (Continued)

---

g **Notification Code (NTFCNCDE):**  
{ MJ, MN }

Specifies the notification code of the alarm condition.

- **MJ** - indicates a Major Alarm
- **MN** - indicates a Minor Alarm.

h **Condition Type (CTYPE):**  
{ ACPWR, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN, TBNDF, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN }

Specifies a type of condition associated with the LOC parameter (f). A list of condition types along with their definitions is given in the **Condition Types** appendix.

i **Service Affecting (SRVEFF):**  
{ SA, NSA }

Specifies whether this condition is service-affecting (**SA**) or non-service-affecting (**NSA**).

j **Location (LOCN):**  
{ NEND, FEND }

Specifies the location of the retrieved equipment condition.

k **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	DS1 Interface Port is <b>MUX</b> - {1-32} - {1-31} but the <b>LOCN</b> parameter (e) is <b>NEND</b>
IDNV	DS1 Interface Port is not <b>MUX</b> - {1-32} - {1-31} but the <b>LOCN</b> parameter (e) is <b>FEND</b>
IDRG	Equipment ID (EID) is out of range
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
PLNA	User is not logged in
SNVS	Condition entered was not met
SNVS	MC is not in service
SNVS	Interface module is not provisioned
SNVS	Circuit packs are not provisioned

# RTRV-COND-LINK

## INPUT FORMAT

---

RTRV-COND-LINK: [a]:b:[c]::[d],[e],,,,,,,,,;

**Command Name:** Retrieve Condition Link  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves error conditions associated with failures of the administrative or data links within the system.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6}, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple links can be specified using full multiple addressing.

Specifies the administrative or data link.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

RTRV-COND-LINK: [a] : b : [c] : : [d] , [e] , , , , , , , ;

## Input Parameters (Continued)

---

d        **Condition Type (CTYPE):**  
          { EXTERR, INT, FRD, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the type of conditions to be retrieved.

- **EXTERR** - indicates error detected external to the DACS IV-2000 system.
- **FRD** - indicates security violation has occurred.
- **INT** - indicates Internal hardware fault or failure detected.
- **ALL** - indicates all near-end conditions are retrieved.

e        **Location (LOCN):**  
          { NEND }

**Default:** NEND

**Initial System Value:** None

**Addressing Rules:** None

Specifies the location where the condition is associated with.

- **NEND** - indicates retrieve active conditions associated with near-end equipment in the DACS IV-2000 database.

# RTRV-COND-LINK

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified links, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

If one or more of the specified conditions is active on one or more of the specified links, the normal response is (one line is generated for each active condition, if a link has more than one active alarm condition, multiple lines appears for that link):

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN */
"f:g,h,i,,,j"
.
.
.
"f:g,h,i,,,j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
k
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- f Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Specifies the individual administrative or data link from the range specified in the input **LINKID** parameter (b).
- g Notification Code (NTFCNCDE):**  
{ MN, NA }
- Specifies the notification code of the alarm condition.
- **MN** - indicates a Minor Alarm.
- h Condition Type (CTYPE):**  
{ EXTERR, INT, FRD }
- Specifies a type of condition associated with the **LINKID** parameter (f). A list of condition types along with their definitions is given in the **Condition Types** appendix.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"f:g,h,i,,,j" (Normal Response)  
k (Error Response)

### Output Parameters (Continued)

---

- i Service Affecting (SRVEFF):**  
{ NSA }  
Specifies whether this condition is non-service-affecting (NSA).
- j Location (LOCN):**  
{ NEND }  
Specifies the location of the retrieved link condition.
- k Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }  
When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |



**Input Format**

---

RTRV-CONF-**{STS1|T1|VT1}** : **[a]** : **b** : **[c]** ;

**Input Parameters (Continued)**

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* FROM,TO: :<>:,SST */
"d,e: :<f>:,g;
.
.
.
"d,e: :<f>:,g;
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
h
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.
- d**        **FROM Port (FROM):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

Specifies the FROM Port. This can be one of the Input Ports in the system that is being used in a broadcast connection.
- e**        **TO Port (TO):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

Specifies the TO Port of a broadcast. This parameter identifies the Output Port as the leg of a broadcast.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "d, e: :<f>:, g; (Normal Response)  
h (Error Response)

## Output Parameters (Continued)

---

- f **TO Output Mode (OMODE):**  
(STS1IVT1): OMODE = { NORM, TERM, AIS }  
(T1): OMODE = { NORM, TERM, AIS, QRSS }
- Specifies what is transmitted from the TO Port.
- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
  - **TERM** - is the IDLE signal (terminated).
  - **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
  - **QRSS** - is a quasi-random signal.
- g **Special Service Type (SST):**  
{ RDLD }
- Specifies the secondary state (SST) of the DS1 circuit. An omitted value for this parameter indicates that the circuit is not red-lined.
- **RDLD** - indicates that the circuit is red-lined.
- h **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IISP   | Syntax or punctuation error in entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SARB   | All resources are busy   |
| SNPV   | All addressed ports are not provisioned                          |
| SNVS   | MC is not in service   |

# RTRV-CRS-**{STS1IT1IVT1}**

## INPUT FORMAT

---

RTRV-CRS-**{STS1|T1|VT1}** : **[a]** : **b** : **[c]** ;

**Command Name:** Retrieve Cross Connect **{STS1IT1IVT1}**

**Command Category:** Provisioning

**User Privilege Code (UCFC/UCAL):** P2

**Abortable:** Yes

**REPT DBCHG Message:** No

### Purpose

---

**(STS1IVT1):** This command retrieves the cross-connect information associated with the specified **(STS-1IVT1.5)** Ports on SMUX circuit packs.

**(T1):** This command retrieves the cross-connect information associated with the specified DS1 Ports on DS1 interface, MUX, or SMUX circuit packs.

**Notes:** When **RTRV-CRS-STS1** or **RTRV-CRS-VT1** is executed on provisioned, non-SONET interface modules, this command is completed with no action taken.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **TO Port (TO):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { DS1GRP-{1-32}-{1-31}, {1-32}-{1-31}-{1-28}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { VT1GRP-{1-32}-{1-15}, UNIT-{1-32}, {1-32}-{1-15}-{1-28} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:**

**(STS1):** Multiple STS-1 Ports within the same STS1 Interface Module can be specified.

**(T1IVT1):** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

Specifies the TO Port, or all of the ports associated with the specified interface modules, groups, or circuit packs.

### Input Format

---

RTRV-CRS- {STS1|T1|VT1} : [a] : b : [c] ;

### Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-CRS-**{STS1|T1|VT1}**

### RESPONSES

---

The output message shows the FROM Ports that are mapped to the TO Ports (specified in the input **TO** parameter [b]).

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* FROM,TO:CCT: <> :,SST */
"d,e:f:<g h>:,i"
.
.
"d,e:f:<g h>:,i"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
j
["<parsable text string>"]
;
```

#### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d FROM Port (FROM):**  
(**STS1**): STS-1 Port: { {1-32}-{1-15} }  
(**T1**): DS1 Port: { {1-32}-{1-31}-{1-28} }  
(**VT1**): VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the FROM Port which is transmitting to the TO Port.
- e TO Port (TO):**  
(**STS1**): STS-1 Port: { {1-32}-{1-15} }  
(**T1**): DS1 Port: { {1-32}-{1-31}-{1-28} }  
(**VT1**): VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the TO Port for which data is being retrieved.
- f Cross-Connect Type (CCT):**  
{ 1WAY, 2WAY }
- Specifies the Cross-Connection Type.
- **1WAY** - indicates a one-way cross-connect.
  - **2WAY** - indicates a two-way cross-connect.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
 M c "d,e:f:<g h>:,i" (Normal Response)  
 j (Error Response)

## Output Parameters (Continued)

---

- g FROM Output Mode (FOMODE):**  
 (STS1IVT1): FOMODE = { NORM, TERM, AIS }  
 (T1): FOMODE = { NORM, TERM, AIS, QRSS }
- Specifies what is transmitted from the FROM Port. This parameter is omitted for one-way cross-connections.
- **NORM** (normal) - is cross-connected data for a mapped output port, or is IDLE for an idle output port.
  - **TERM** - is the IDLE signal (terminated).
  - **AIS** - is the Alarm Indication Signal (formerly called the *blue signal*).
  - **QRSS** - is a quasi-random signal.
- h TO Output Mode (TOMODE):**  
 (STS1IVT1): TOMODE = { NORM, TERM, AIS }  
 (T1): TOMODE = { NORM, TERM, AIS, QRSS }
- Specifies what is transmitted from the TO Port. The values for this parameter are the same as those given for the FOMODE parameter (g).
- i Special Service Type (SST):**  
 { RDLD }
- Specifies the secondary state (SST) of the circuit. An omitted value for this parameter indicates that the circuit is not red-lined.
- **RDLD** - indicates that the circuit is red-lined.
- j Error Code (ERRCDE):**  
 { <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IDNV   | Command parameters invalid                                       |
| IDNV   | RTRV-CRS- {EC1   VT1} on an asynchronous interface module        |
| IDRG   | Input data is out of range                                       |
| IISP   | Syntax or punctuation error in entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SARB   | All resources are busy   |
| SNPV   | No interface modules are provisioned                             |
| SNVS   | MC is not in service   |

# RTRV-CRS

## INPUT FORMAT

---

RTRV-CRS: [a]:b:[c];

**Command Name:** Retrieve Cross Connect  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves any connections associated with the specified DS1, VT1.5, or STS-1 Ports. FROM and TO Port information is returned along with the type of connection and secondary state (red-lined) information.

**Notes:** The value of the CCT parameter (f) is generated as follows:

- **1WAY** - refers to a cross-connection going in one direction only between a FROM Port and a TO Port. The cross-connection is one-way, and not a part of a two-way, broadcast, test access, loopback, or performance monitoring connections. One of the following input commands can set up or disconnect a one-way cross-connection:

ENT-CRS- {STS1 | T1 | VT1}  
DLT-CRS- {STS1 | T1 | VT1}

- **2WAY** - refers to a cross-connection going in both directions between a FROM Port and a TO Port. The cross-connection is not one-way, and not part of a broadcast, test access, loopback, or performance monitoring connection. One or a combination of the following input commands can set up or disconnect two-way cross-connections:

ENT-CRS- {STS1 | T1 | VT1}  
DLT-CRS- {STS1 | T1 | VT1}

- **RTBDCST** (Return to Broadcast) - refers to a port that is a part of a two-way cross-connection, and at the same time **either** port (FROM or TO) of this cross-connection is broadcasting and this connection is not part of a test access, loopback, or performance monitoring connection. One of the following input commands can contribute to setting up or disconnecting a RTBDCST cross-connection:

ENT-CONF- {STS1 | T1 | VT1}  
ENT-CRS- {STS1 | T1 | VT1}  
ENT-ROLL- {STS1 | T1 | VT1}  
DLT-CONF- {STS1 | T1 | VT1}  
DLT-CRS- {STS1 | T1 | VT1}

- **2BDCST** - refers to a cross-connection that is part of a broadcast (1x2), and is not part of a one-way, test access, loopback, or performance monitoring connection. One of the following input commands can contribute to setting up or disconnecting a 2BDCST cross-connection:

**ENT-CONF** - {STS1 | T1 | VT1}  
**ENT-CRS** - {STS1 | T1 | VT1}  
**ENT-ROLL** - {STS1 | T1 | VT1}  
**DLT-CONF** - {STS1 | T1 | VT1}  
**DLT-CRS** - {STS1 | T1 | VT1}

- **TA-xxx** (Test Access where xxx indicates the test access mode) - refers to a connection that is part of a test access connection, and displays one of the following Test Access Modes: MONE, MONF, SPLTA, SPLTB, SPLTE, SPLTF, LOOPE, LOOPF, MONEF, or SPLTEF. One of the following input commands can set up or disconnect a Test Access connection:

**CONN-TACC** - {STS1 | T1 | VT1}  
**DISC-TACC**

- **LPBKL, LPBKT, LPBKI, LPBKM, FLPBKM, or LPBKF** (Loopback) - refers to a connection that is a part of a loopback. One of the following input commands can set up or disconnect a loopback connection:

**OPR-LPBK** - {STS1 | T1 | T3 | VT1}  
**RLS-LPBK** - {STS1 | T1 | T3 | VT1}

- **PM** (Performance Monitoring) - refers to a connection that is a part of a performance monitoring connection. One of the following input commands can set up or disconnect a performance monitoring connection:

**CONN-PM-T1**  
**DISC-PM-T1**  
**STA-SCANPM-T1**  
**STP-SCANPM-T1**

In order to find out the specific type of PM connection that exists, use the **RTRV-PMCENFRN-T1** command.

### Input Parameters

- a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** none

Specifies the Target ID of the DACS IV-2000.

## RTRV-CRS

### Input Format

---

RTRV-CRS: [a] : b: [c] ;

### Input Parameters (Continued)

---

**b Port (PORT):**

**(STS1):** STS-1 Port: { {1-32}-{1-15}, UNIT-{1-32}, ALL }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, UNIT-{1-32}, DS1GRP-{1-32}-{1-31}, ALL }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32}, ALL }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

Specifies the FROM or TO Port, or all of the ports associated with the specified interface modules, groups, or circuit packs. This parameter can indicate either FROM (Input) Port(s) or TO (Output) Port(s). To retrieve connections for all ports, specify **ALL** for this parameter.

**c Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

No data line(s) are produced if there is no cross-connection within the specified range of port(s).

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* FROM,TO:CCT, TX:, SST */
   "d,e:f,g:,:,h"
   .
   .
   "d,e:f,g:,:,h"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   i
   ["<parsable text string>"]
;
```

### Output Parameters

---

- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          Specifies the Correlation Tag used to associate an input command with its output response.
- d       **FROM Port (FROM):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }  
  
          Specifies the FROM Port(s).
- e       **TO Port (TO):**  
          **(STS1):** STS-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }  
  
          Specifies the TO Port(s).

## RTRV-CRS

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "d,e:f,g::,h" (Normal Response)  
i (Error Response)

### Output Parameters (Continued)

---

- f **Cross-Connect Type (CCT):**  
{ 2WAY, 1WAY, RTBDCST, 2BDCST, TA-MONE, TA-MONF, TA-SPLTA, TA-SPLTB, TA-SPLTE, TA-SPLTF, TA-LOOPE, TA-LOOPF, TA-MONEF, TA-SPLTEF, LPBKL, LPBKT, LPBKI, LPBKM, FLPBKM, LPBKF, PM }
- Specifies the type of cross connection. Refer to the **Notes** section at the beginning of this command for more information.
- **2WAY, 1WAY, RTBDCST, and 2BDCST** - indicate two-way, one-way, return to broadcast, and 1x2 broadcast (2 legs).
  - **TA-MONE, TA-MONF, TA-SPLTA, TA-SPLTB, TA-SPLTE, TA-SPLTE, TA-LOOPE, TA-LOOPF, TA-MONEF, and TA-SPLTEF** - indicate the mode of the test access connection (see the *DACS IV-2000 (256) Release 4.0 Reference Manual* [AT&T 365-340-700] for a full description of test access modes).
  - **LPBKL, LPBKT, LPBKI, LPBKM, FLPBKM, LPBKF** - indicate the type of the loopback connection or state (see the **State Names** appendix for a description of loopback states).
  - **PM** - indicates performance monitoring.
- g **Type of Cross-Connection (TX):**  
{ T1, VT1, STS1 }
- Specifies the type of connection.
- **T1** - indicates that the connection is established at the DS1 signal rate.
  - **VT1** - indicates that the connection is established at the VT1.5 signal rate.
  - **STS1** - indicates that the connection is established at the STS-1 signal rate.
- h **Special Service Type (SST):**  
{ RDLD }
- Specifies the Secondary State of the circuit. An omitted value for this parameter indicates that the circuit is not red-lined.
- **RDLD** - indicates that the circuit is red-lined.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"d,e:f,g::,h" (Error Response)  
i

### Output Parameters (Continued)

---

i **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SARB	All resources are busy
SNPV	All addressed ports are not provisioned
SNVS	MC is not in service

# RTRV-DROPCRS-{STS1IT1IVT1}

## INPUT FORMAT

---

RTRV-DROPCRS- {STS1|T1|VT1} : [a] :: [b] ;

**Command Name:** Retrieve Drop Cross Connect {STS1IT1IVT1}

**Command Category:** Provisioning

**User Privilege Code (UCFC/UCAL):** P2

**Abortable:** Yes

**REPT DBCHG Message:** No

### Purpose

---

This command retrieves information about all connections which have been temporarily dropped due to protection activity on the frame.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
   /* FROM,TO:CCT */
   "c,d:e"
   .
   .
   "c,d:e"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
   f
   ["<parsable text string>"]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c FROM Port (FROM):**  
(STS1): STS-1 Port: { {1-32}-{1-15} }  
(T1): DS1 Port: { {1-32}-{1-31}-{1-28} }  
(VT1): VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the FROM Port of the dropped connection.
- d TO Port (TO):**  
(STS1): STS-1 Port: { {1-32}-{1-15} }  
(T1): DS1 Port: { {1-32}-{1-31}-{1-28} }  
(VT1): VT1.5 Port: { {1-32}-{1-15}-{1-28} }
- Specifies the TO Port of the dropped connection.
- e Cross-Connect Type (CCT):**  
{ 1WAY, 2BDCST, TA, LPBK, PM }
- Specifies the Type of cross connection.
- **1WAY** and **2BDCST** - indicate one-way and 1x2 broadcast (2 legs), respectively.
  - **PM** - indicates a performance monitoring connection.
  - **TA** - indicates a test access connection.
  - **LPBK** - indicates a loopback connection.

## RTRV-DROPCRS-{STS1IT1IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d:e" (Normal Response)  
f (Error Response)

### Output Parameters (Continued)

---

f **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## RTRV-ECHO-LINK

### INPUT FORMAT

---

RTRV-ECHO-LINK: [a] : [b] : [c] ;

**Command Name:** Retrieve Echo Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the active or canceled status of the echoing of input commands for the specified CILINK.

**Notes:** Only one link or virtual circuit can be activated for the echo of input commands at one time.

For X.25 links, all of the virtual circuits are shown in the output response.

### Input Parameters

---

a      **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b      **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6}, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** Multiple links can be specified.

Specifies the administrative or data link.

c      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-ECHO-LINK

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC,VIRT_CIRC:ECHO_STAT */
"d,e:f"
.
"d,e:f"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
g
["<parsable text string>"]
;
```

#### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Identifies the individual administrative or data link.
- e Virtual Circuit (VIRT\_CIR):**  
{ 0-4 }
- Specifies the virtual circuit on the X.25 link. For CILINK-{1,2}-{1-4}, this parameter is set to 0.
- f Echo Status (ECHO\_STAT):**  
{ ACT, CANC }
- Specifies whether REPT LOCL IN messages for the link are activated or canceled.
- g Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IDNV   | Link ID is invalid   |
| IISP   | Syntax or punctuation error on entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |

## RTRV-EQPT

### INPUT FORMAT

---

RTRV-EQPT: [a] : b : [c] ;

**Command Name:** Retrieve Equipment  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

#### Purpose

---

This command retrieves the provisioning information and service data (parameters stored in the system database) associated with equipment.

**Notes:** When a PMGR circuit pack is in a MUX or SWIF slot, the RTRV-EQPT command for MUX or SWIF circuit pack slots outputs a value for the FNCT parameter (q). Otherwise, the FNCT parameter for MUX and SWIF circuit pack slots is omitted.

#### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, CPU-{0,1}, MTC-{0,1}, SSC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2},  
          SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UNIT-{1-32}, UC-{1-32},  
          DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32},  
          MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
          DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15},  
          SMUXP-{1-32}, SYNCN, DPLL-{0,1}, TX-{0,1}, TB-{0,1} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple equipment can be specified using full multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location.

## RTRV-EQPT

### Input Format

---

RTRV-EQPT: [a] :b: [c] ;

### Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:UTYPE:<>:CLEI:STATE:<> */
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa"
.
.
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa"
;
```

The normal output response contains one fixed-format line for each circuit pack specified in the input command. These lines consist of common data fields for all circuit packs, followed by fields that depend upon the type of circuit pack. The common data fields are the equipment type/location (LOC parameter [d]) and the equipment state (STATE parameter [aa]). The specific format of these lines for the different equipment types are:

- Data lines for MUX circuit packs:  
"d::<f g h i q>::aa"
- Data Lines for SMUX circuit packs:  
"d::<f g h i>:z:aa"
- Data lines for DS1IF circuit packs:  
"d::<f g j k>::aa"
- Data lines for interface modules:  
"d:e:<l m n o>::aa"
- Data lines for DS3PM circuit packs:  
"d::<f g m p>::aa"
- Data lines for SYNCN:  
"d::<r s>"
- Data lines for DS1TX (TX) circuit packs:  
"d::<f g t u v w x y>:z:aa"
- Data lines for TBS3 (TB) and DPLL circuit packs:  
"d::<f g>:z:aa"
- Data lines for SWIF circuit packs:  
"d::<f g q>::aa"
- Data lines for all other circuit packs:  
"d::<f g>::aa"

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
ab
[ "<parsable text string>" ]
;
```

## RTRV-EQPT

### Output Parameters

---

- c     **Correlation Tag (CTAG):**  
      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d     **Equipment Location (LOC):**  
      { MC, CPU-{0,1}, MTC-{0,1}, SSC-{0,1}, CC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2},  
      SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UNIT-{1-32}, UC-{1-32},  
      DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32},  
      MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
      DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15},  
      SMUXP-{1-32}, SYNCN, DPLL-{0,1}, TX-{0,1}, TB-{0,1} }
- Specifies the individual circuit pack or interface module from the range specified in the input command.
- e     **Unit Type (UTYPE):**  
      { 32DS3, 16DS3, DS1, DS1P, 16STS1 }
- Specifies the type of interface module.
- **32DS3** - indicates a DS3 Interface-32 Module.
  - **16DS3** - indicates a DS3 Interface-16 Module.
  - **DS1** - indicates a DS1 Interface Module.
  - **DS1P** - indicates a DS1 Interface-Protection Module.
  - **16STS1** - indicates a STS1 Interface-16 Module.
- f     **Provisioned Code Name (PCODE):**  
      PCODE = { AKM46, AKM47, AKM49, AKM50, AKM52, AKM55, AKM59, AKM59B,  
      AKM66, AKM68, AKM70, AKM84, AKM85, AWP4B, AWP9, AWP14, AWP15,  
      AWR2C, AWR4, AWR5, AWR6, AWR7, AWR10, AWR11, AWR12, AWS1, AWS1B,  
      AWS3, AWS5, AWS8, AWS9, ERB5, ERB6, INIT, INIT\* }
- Specifies the circuit pack Code Name for the circuit pack which occupies the location as provisioned. For circuit packs that are not controller visible, this parameter is omitted.
- **INIT** - is used for an initialized (unset) value.
  - **INIT\*** - is used when the circuit pack was provisioned through circuit pack insertion rather than through an input command.
- g     **Circuit Pack Code Name (CCODE):**  
      CCODE = { AKM46, AKM47, AKM49, AKM50, AKM52, AKM55, AKM59, AKM59B,  
      AKM66, AKM68, AKM70, AKM84, AKM85, AWP4B, AWP9, AWP14, AWP15,  
      AWR2C, AWR4, AWR5, AWR6, AWR7, AWR10, AWR11, AWR12, AWS1, AWS1B,  
      AWS3, AWS5, AWS8, AWS9, ERB5, ERB6, INVALID }
- Specifies the circuit pack Code Name for the circuit pack which occupies the location as determined by information read from the circuit pack. If the circuit pack is not controller visible, this parameter is omitted. If the circuit pack is in the wrong location, this parameter is `INVALID`.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa" (Normal Response)  
ab (Error Response)

## Output Parameters (Continued)

---

**h Provisioned Line Build-Out (PLBO):**  
PLBO = { INIT, OUT, IN }

Specifies the line build-out setting for MUX and SMUX circuit packs as provisioned. For a protection MUX or SMUX circuit pack, this parameter is **OUT**.

- **INIT** - is used for an initialized (unset) value.

**i Circuit Pack Line Build-Out (CLBO):**  
CLBO = { OUT, IN }

Specifies the line build-out setting for MUX and SMUX circuit packs as determined by information read from the circuit pack. If the circuit pack value cannot be read, this parameter is omitted. If the circuit pack value differs from the provisioned value, the circuit pack is considered **bad**.

**j Provisioned Equalizer (PEQL):**  
PEQL = { INIT, 20, 40, 60, 80, 100, 20\*, 40\*, 60\*, 80\*, 100\* }

Specifies the EQL setting for DS1IF circuit packs as provisioned. For a DS1IP circuit pack, this parameter is omitted. An asterisk (\*) appears after the value if it was provisioned through circuit pack insertion rather than through an input command. If there is an asterisk and if the provisioned and circuit pack values differ, the pack is considered **bad** and an alarm is raised. If there is no asterisk, the provisioned value overrides the circuit pack value, and there is no alarm.

- **INIT** - is used for an initialized (unset) value.

**k Circuit Pack Equalizer (CEQL):**  
CEQL = { INIT, 20, 40, 60, 80, 100, INVALID }

Specifies the EQL setting for DS1IF circuit packs as determined by information read from the circuit pack. If the circuit pack value cannot be read, this parameter is omitted. A manually provisioned value overrides the circuit pack value if they differ.

- **INVALID** - indicates an invalid switch setting on the circuit pack.

**l Switch Connection Equipment Location (SWLOC):**  
SWLOC = { SWIO-{1-32} }

Specifies the lowest-numbered SWIO circuit pack that provides service connections to the specified interface module.

**m Cable ID (CABLEID):**  
CABLEID = { J{1-32} }

Specifies the Controller Cable ID associated with the specified interface module or DS3PM circuit pack.

## RTRV-EQPT

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa"(Normal Response)  
ab (Error Response)

### Output Parameters (Continued)

---

- n Protection Equipment Location (PROTLOC):**  
PROTLOC = { UNIT-{1-32} }
- Specifies the DS1 Interface-Protection Module that provides the protection for specified DS1 Interface Module. If the **UTYPE** parameter (e) is not DS1, this parameter is omitted.
- o Telemetry Display Number (TELDISP):**  
TELDISP = { 0-31 }
- Specifies the telemetry display that is used on the AS&C telemetry link for the specified interface module.
- p DS3PM Multipoint Address (MULPTADD):**  
MULPTADD = { 0-31 }
- Specifies the layer two (multipoint) address used on the TABS link associated with the DS3PM circuit pack.
- q Function (FNCT):**  
FNCT = { PM, PM-SCAN }
- Specifies the function of the AKM66 circuit pack.
- **PM** - specifies Camp-On Performance Monitoring functions are performed.
  - **PM-SCAN** - specifies SCAN DS1 Performance Monitoring functions are performed.
- r Timing Reference Restoration Mode (TRREST):**  
TRREST = { AUTO }
- Specifies the Synchronizer Timing Reference Restoration mode.
- **AUTO** - specifies that a timing reference is autonomously returned to an in-service state when preexisting error conditions clear.
- s Operational State Restoration Mode (OSREST):**  
OSREST = { AUTO }
- Specifies the Synchronizer Operational State Restoration mode.
- **AUTO** - specifies that autonomous attempts must be made to returned to the NORM mode.
- t TLI Port 1 Timing Reference (TLIP1REF):**  
TLIP1REF = { SYNCPRI, SYNCSEC }
- Specifies the Timing Reference which is connected to the indicated TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa"(Normal Response)  
ab (Error Response)

## Output Parameters (Continued)

---

- u TLI Port 2 Timing Reference (TLIP2REF):**  
TLIP2REF = { SYNCPRI, SYNCSEC }
- Specifies the Timing Reference which is connected to the indicated TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.
- v TLI Port 1 Framing Format (TLIP1FF):**  
TLIP1FF = { ESF, SF }
- Specifies the DS1 Framing Format provisioned for a specified TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.
- w TLI Port 2 Framing Format (TLIP2FF):**  
TLIP2FF = { ESF, SF }
- Specifies the DS1 Framing Format provisioned for a specified TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.
- x TLI Port 1 Line Code (TLIP1LC):**  
TLIP1LC = { AMI, B8ZS }
- Specifies the DS1 line code provisioned for a given TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.
- y TLI Port 2 Line Code (TLIP2LC):**  
TLIP2LC = { AMI, B8ZS }
- Specifies the DS1 line code provisioned for a given TX TLI port on a DS1TX (AWS5 or AWS9) circuit pack.
- z Common Language Equipment ID Code (CLEI):**  
{ <see below> }
- Specifies the CLEI codes of the specified SMUX circuit packs. The CLEI code is a 10 character string which provides hardware version recognition for each SMUX circuit pack. If the entered circuit pack is not an SMUX circuit pack, this parameter is omitted.
- aa Equipment State (STATE):**  
{ <see below> }
- Specifies the state of the specified equipment. Valid states for equipment, along with their meaning, are listed in the **State Names** appendix. This parameter is omitted for the SYNCN equipment.

## RTRV-EQPT

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e:<f g h i j k l m n o p q r s t u v w x y>:z:aa" (Normal Response)  
ab (Error Response)

### Output Parameters (Continued)

---

ab **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	Interface module/circuit pack requested is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	Interface module/circuit pack requested is not in provisioned state
SNVS	MC is not in service

## RTRV-HDR

### INPUT FORMAT

---

RTRV-HDR: [a] : : [b] ;

**Command Name:** Retrieve Header  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the header information (TID, date, and time) associated with the DACS IV-2000. This command is used mostly by Operations Systems (OSs).

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-HDR

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
c
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**b**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**c**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## RTRV-LPBK-{EC1|T1|T3|VT1}

### INPUT FORMAT

---

RTRV-LPBK- {EC1 | T1 | T3 | VT1} : [a] : b : [c] ;

**Command Name:** Retrieve Loopback {EC1|T1|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

**(EC1|VT1):** This command retrieves information about all active (STS-1|VT1.5) loopbacks on an SMUX circuit pack within the system.

**(T1):** This command retrieves information about all active DS1 loopbacks on a DS1 interface, MUX, or SMUX circuit pack within the system. Also, this command can retrieve requested far-end DS1 loopbacks associated with a MUX2 circuit pack provisioned to support remote DS1 loopback operations.

**(T3):** This command retrieves information about all active DS3 loopbacks on a MUX circuit packs within the system (including requested far-end DS3 loopbacks associated with a MUX2 circuit packs provisioned to support remote DS3 loopback operations).

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Port (PORT):**  
**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.

## RTRV-LPBK-{EC1|T1|T3|VT1}

### Input Format

---

RTRV-LPBK- {EC1|T1|T3|VT1} : [a] : b : [c] ;

### Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

If no loopbacks are active on the specified ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD
```

If one or more loopbacks are active on one or more of the specified ports, the normal response is (one line is generated for each active condition):

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
/* PORT:LPBK-STATE, LINK, UID, INH-STATE */  
"d:e, f, g, h"  
.  
.  
.  
"d:e, f, g, h"  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
i  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

**c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**d**      **Port (PORT):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(T3):** DS3 Port: {1-32}-{1-31}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the individual ports from the range specified in the input **PORT** parameter (b).

## RTRV-LPBK-{EC1|T1|T3|VT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"d:e,f,g,h" (Error Response)  
i

### Output Parameters (Continued)

---

e **Loopback State (LPBK-STATE):**  
(EC1): { LPBKL, LPBKT, NONE }  
(T1): { LPBKL, LPBKT, LPBKI, LPBKM, FLPBKM, LPBKF, NONE }  
(T3): { LPBKL, FLPBKL, LPBKF, NONE }  
(VT1): { LPBKT, NONE }

Specifies the loopback state on the port.

- **LPBKL** - indicates an active (STS-1|DS1|DS3) line loopback.
- **LPBKT** - indicates a (STS-1|DS1|VT1.5) terminal loopback.
- **LPBKI** - indicates a DS1 internal loopback.
- **LPBKM** - indicates a DS1 loopback in a MUX circuit pack.
- **FLPBKM** - indicates a DS1 loopback in a MUX2 circuit pack; established in response to the far-end command.
- **LPBKF** - indicates a request for a far-end (DS1|DS3) loopback from a MUX2 circuit pack.
- **FLPBKL** - indicates a DS3 line loopback in a MUX2 circuit pack; established in response to the far-end command..
- **NONE** - indicates that a loopback for the port specified does not exist.

f **Link ID (LINKID):**  
{ CILINK-0-0, CILINK-{1,2}-{1-6} }

Specifies the CILINK on which the loopback session was set up. The special value CILINK-0-0 is used with the loopback session that is not associated with any CILINK, and is not subject to automatic release.

(T1): Loopbacks which were set up in Release 1 have no link association. Therefore, when retrieving T1 loopback information with the RTRV-LPBK-T1 command, values this parameter are omitted.

g **User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS> }

Specifies the user identification (UID) name that set up the loopback.

(T1): This value is omitted for an active FLPBKM state, which is not associated with any user. Loopbacks which were set up in Release 1 have no UID association. Therefore, when retrieving T1 loopback information via the RTRV-LPBK-T1 command, values for this parameter are omitted.

(T3): This value is omitted for an active FLPBKL state, which is not associated with any user.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "d:e,f,g,h" (Normal Response)  
i (Error Response)

### Output Parameters (Continued)

---

**h Inhibit State (INH-STATE):**  
(EC1): { NONE, INHEC1LPBK }  
(T1IT3): { NONE, BOTH, INHDS1LPBK, INHDS3FLPBK }  
(VT1): { NONE, INHVT1LPBK }

Specifies whether or not the loopback is inhibited.

**i Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data is not valid
IDRG	Circuit pack is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNIS	MC is out of service
SNPV	Circuit packs not provisioned
SNVS	MC is not in service

# RTRV-MSG-{EC1|VT1}

## INPUT FORMAT

---

RTRV-MSG-{EC1|VT1}:[a]:b:[c]:[d],[e];

**Command Name:** Retrieve Message {EC1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves EC-1 or VT1.5 Ports which have been allowed/inhibited for threshold crossing alert messages.

**Notes:** This command is allowed irrespective of the Active Signal Type of the port.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified (ranges are allowed). Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.
- Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

RTRV-MSG- {EC1|VT1}: [a]:b:[c]: [d], [e];

### Input Parameters (Continued)

d           **Threshold Crossing Alert Message Status (TCASTAT):**  
              { ALW, INH, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the type of messages to retrieve for the ports specified in the **PORT** parameter (b) and the time periods specified in the **TMPER** parameter (e).

- **ALW** - indicates to retrieve only those ports which have been provisioned to allow threshold crossing alerts.
- **INH** - indicates to retrieve only those ports which have been provisioned to inhibit threshold crossing alerts.
- **ALL** - indicates to retrieve all ports.

e           **Time Period (TMPER):**  
              { 15-MIN, 1-DAY, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the accumulation Time Period for the port that has been allowed to report or inhibited from reporting threshold crossing alerts.

## RTRV-MSG-{EC1IVT1}

### RESPONSES

---

#### Normal Response

---

If none of the specified conditions are active on the specified ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
```

If one or more of the specified conditions are active on the specified ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC:TCASTAT, TMPER */
" f:g,h"
.
.
.
" f:g,h"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
i
[ "<parsable text string>"]
;
```

#### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- f Port (PORT):**  
**(EC1):** EC-1 Port: {1-32}-{1-15}  
**(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the ports which have been allowed to report or inhibited from reporting threshold crossing alerts.
- g Threshold Crossing Alert Message Status (TCASTAT):**  
{ ALW, INH }
- Specifies whether the port is allowed to report or inhibited from reporting threshold crossing alerts.
- h Time Period (TMPER):**  
{ 15-MIN, 1-DAY }
- Specifies the accumulation Time Period for the port that has been allowed or inhibited.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"f:g,h" (Normal Response)  
i (Error Response)

### Output Parameters (Continued)

---

i **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDRG	The range of ports specified is not valid
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	The port or range of ports specified must have at least one provisioned port
SNVS	MC is not in service
SROF	UC cannot be accessed

# RTRV-NE

## INPUT FORMAT

---

RTRV-NE: [a] :: [b] ;

**Command Name:** Retrieve Network Element  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves provisioning information and service data (parameters stored in the system database) associated with the network element.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* NETYPE,NESIZE,SFTWR-VRSN:<> */
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> */
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
ad
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Network Element Type (NETYPE):**  
{ DACSIV1 }
- Specifies the network element type. The value of this parameter is fixed for the current DACS IV-2000 (256).
- d Network Element Switch Size (NESIZE):**  
{ 7168-DS1 }
- Specifies the network element switch size. The value of this parameter is fixed for the current DACS IV-2000.
- e Software ID (SFTWR-VRSN):**  
{ 4-00-{1-99}-r }
- Specifies the software version information. The first component of this parameter specifies the release (4), the second component specifies the point-release (00), the third component specifies the issue of the release ({1-99}), and the last component (r) specifies the load of the release [r specifies a DACS IV-2000 (256) software load]. The first, second, and last components are fixed values and the third component is a value within the given range.
- f Alarm Delay (ALMDLY):**  
ALMDLY = { 1-30 }
- Specifies the alarm delay (in seconds) for software detected alarm conditions associated with all equipment and non-SONET facilities terminated on a DS1IF or MUX circuit pack. The alarm delay duration affects audible and visible office alarm outputs, major (MJ) and minor (MN) LED indicators on the status panel, autonomous messages, and AS&C alarm points. The alarm delay does **not** affect LEDs on circuit packs with existing alarms (until those alarms clear), does **not** affect output in response to manually input commands, and does **not** affect AS&C status points.

## RTRV-NE

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> \*/ (Normal Response)  
ad (Error Response)

### Output Parameters (Continued)

---

- g Clear Delay (CLRDLY):**  
CLRDLY = { 1-20 }
- Specifies the delay (in seconds) that must be satisfied before non-SONET alarm conditions are cleared. This parameter does not affect equipment alarms.
- h Autolock Number of Switches (NUMSW):**  
NUMSW = { 1-10 }
- Specifies the number of auto-restorations that can occur in a given Autolock Switching Interval (see the ALMDLY parameter [f]), before an Autolock occurs on the protectable circuit pack. The term *auto-restoration* refers to the transition from the protection state to the unprotection state.
- i Autolock Switching Interval (SWINTVL):**  
SWINTVL = { 1-60 }
- Specifies the interval (in minutes) in which the value given by Autolock Number of Switches (see the NUMSW parameter [h]) of auto-restorations can take place before autolock occurs on the circuit pack. The term *auto-restoration* refers to the transition from the protection state to the unprotection state.
- j Autolock Release Time (RLSTM):**  
RLSTM = { 1-24 }
- Specifies the duration (in hours) between times when the system automatically releases all autolocks.
- k Automatic Secondary Disk Drive Backup (BKUP):**  
BKUP = { ON, OFF }
- Specifies whether automatic PRI to SEC database backup is enabled.
- l Time of Day (TMDAY):**  
TMDAY = { 0000-2359 }
- Specifies the time of day that automatic PRI-to-SEC database backup occurs. The time of day is represented by use of a 24-hour clock that runs from 00:00 to 23:59. The colon is removed and the time is shown as a four-digit number.
- m Day of Week (DAYWK):**  
DAYWK = { Su, Mo, Tu, We, Th, Fr, Sa }
- Specifies the day(s) of the week automatic PRI-to-SEC database backup occurs.
- n Common Language Equipment ID Code (CLEI):**  
CLEI = { #<1-10 TRANSID LEGAL CHARACTERS> }
- Specifies the network element level Common Language Equipment Identification (CLEI) code.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> \*/ (Normal Response)  
ad (Error Response)

## Output Parameters (Continued)

---

- o Common Language Location ID Code (CLLI):**  
CLLI = { #<1-11 TRANSID LEGAL CHARACTERS> }
- Specifies the network element level Common Language Location Identification (CLLI) code.
- p Frame ID Code (FIC):**  
FIC = { #<1-10 TRANSID LEGAL CHARACTERS> }
- Specifies the network element level Frame Identification Code (FIC).
- q Equipment Type (EQTYPE):**  
EQTYPE = { CPE, NET }
- Specifies the type of equipment. This parameter is used to set the value of the carrier/response (CR) flag in the message that is sent in the data channel of the C-bit parity signal.
- CPE - is Customer Premise Equipment (sets CR to 0).
  - NET - is Network Equipment (sets CR to 1).
- r Failure Type (FAILTYPE):**  
FAILTYPE = { FAC, EQPT, BOTH, NONE }
- Specifies the method of counting failures. The total number of EC-1/VT1.5/DS1 failures is used in conjunction with the provisioned Failure Threshold (FAILTHRES parameter [s]) to activate/deactivate the critical alarm. If the total count becomes greater than or equal to the FAILTHRES parameter, a critical alarm is activated.
- FAC - indicates the DACS IV-2000 counts failures based on facility failures only.
  - EQPT - indicates the DACS IV-2000 counts failures based on equipment failures only.
  - BOTH - indicates the DACS IV-2000 counts failures based on both equipment and facility failures.
- s Failure Threshold (FAILTHRES):**  
FAILTHRES = { 0-500 }
- Specifies the number of EC-1/VT1.5/DS1 failures that constitute a critical alarm. If the value entered is zero, no critical alarms are triggered. If the value entered is greater than zero, whenever the total number of failures becomes greater than or equal to the specified value, a critical alarm is activated.
- t Number of Cyclic Redundancy Code 6 Errors (CRC-6):**  
CRCERR = { 0-19200 }
- Specifies the number of CRC-6 errors in a minute that contribute to a degraded minute.

## RTRV-NE

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> \*/ (Normal Response)  
ad (Error Response)

### Output Parameters (Continued)

---

- u DS1 Short Accumulation Period (SHACCUM):**  
SHACCUM = { 15-MIN, 1-HR }
- Specifies the second (or short) accumulation period of performance monitoring parameters. This parameter is a DS1 performance monitoring parameter. Daily accumulation is performed. This value can change after a system reset is done. Refer to the **ED-NE** command for more information.
- v DS3 Performance Monitoring Type (PMTYPE):**  
PMTYPE = { PSET#1, PSET#2, NONE }
- Specifies the type of performance monitoring parameters that are collected (per frame). This value can change after a system reset is done. Refer to the **ED-NE** command for more information.
- w DS3 Accumulation Period (ACCUM):**  
ACCUM = { 15-MIN, 1-HR }
- Specifies, on a per-frame basis, whether 15-MIN or 1-HR data is accumulated. If the **PMTYPE** parameter (v) is PSET#1, this parameter is 15-MIN. Daily accumulation is performed. This value can change after a system reset is done. Refer to the **ED-NE** command for more information.
- x Database Change Feature (DBCHG):**  
DBCHG = { OFF, ON }
- Specifies whether the database change feature is turned on or off.
- **OFF** - indicates the feature is turned off. This means that no REPT DBCHG messages are generated which report database changes due to manual command input.
  - **ON** - indicates the feature is turned on. This means that REPT DBCHG messages are generated which report database changes due to manual command input; they are sent to the links/users provisioned to receive these messages.
- y Manual Protection ID (MANPROT):**  
MANPROT = { CKTLED-ON, CKTLED-OFF }
- Specifies whether or not the system's protection identification feature is enabled.
- **CKTLED-ON** - indicates that the Alarm LED for SWIF, SWCS, SWIO, SMUX, and MUX type circuit packs illuminate as long as that circuit pack is in a protected condition, whether due to manual or autonomous action. In the case of a SWIO circuit pack, its associated, protected, CLKDR circuit pack also has its alarm LED illuminated.
  - **CKTLED-OFF** - disables this feature.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> \*/ (Normal Response)  
ad (Error Response)

## Output Parameters (Continued)

---

- z Link Number (LINKNUM):**  
LINKNUM = { ON, OFF }
- Specifies whether the message headers contain the CILINK number associated with the message.
- **ON** - indicates that the link number appears in the message header.
  - **OFF** - indicates that the link number does not appear in the message header.
- aa Backup Alarm Feature (BKUPALM):**  
BKUPALM = { ON, OFF }
- Specifies whether the feature to alarm for a failure of a backup to secondary memory is activated.
- **OFF** - indicates no alarm is raised for a failure of a backup to secondary memory.
  - **ON** - indicates that an alarm is raised for a failure of a backup to secondary memory.
- ab Automatic Carriage Return (AUTORET):**  
AUTORET = { ON, OFF, CURVAL }
- Default:** CURVAL  
**Initial System Value:** ON  
**Addressing Rules:** None
- Specifies whether an automatic carriage return is sent every 15 minutes.
- **ON** - indicates that the automatic carriage return is sent every 15 minutes.
  - **OFF** - indicates that the automatic carriage return is not sent every 15 minutes.
- ac Equipment Power (EQPWR):**  
EQPWR = { SPLX, DPLX }
- Specifies the way the system is powered by the office battery plan. That is, the system has or does not have separate red and blue power feeds.
- **SPLX** (simplex power feeders) - indicates the system is powered by a single battery distribution feeder board (BDFB). That is, the system does not have separate red and blue power feeds.
  - **DPLX** (duplex power feeders) - indicates the system is powered by two BDFBs, (the BDFBs can be powered by one or two battery plants). That is, the system has separate red and blue power feeds.

## RTRV-NE

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c,d,e:<f g h i j k l m n o p q r s t u v w x y z aa ab ac> \*/ (Normal Response)  
ad (Error Response)

### Output Parameters (Continued)

---

ad **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have the proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## RTRV-PATH-{STS1|T1|VT1}

### INPUT FORMAT

---

RTRV-PATH-{STS1|T1|VT1}: [a]:b:[c];

**Command Name:** Retrieve Path {STS1|T1|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the circuit packs associated with the cross-connection of a specified one-way path, Input Port to Output Port through the DACS IV-2000.

**(T1):** The DS1 Input and Output Ports can be on DS1, DS3, or STS1 linterface Modules.

**(STS1|VT1):** The EC-1and VT1.5 Input and Output Ports must be on STS1 Interface Modules.

**Notes:** This command shows the actual switch mapping that is in effect at the time the command is given. If a protection switch is up, and if paths go through a protection circuit pack, the protection circuit pack is shown. Also, if a connection is temporarily taken down or modified in the switch fabric (for example, when the Output Mode is set to **TERM**, or when a cross-connect is under **SPLIT** test access) the actual switch mapping is given rather than the mapping that is in effect for a normal connection.

This command only reports the cross-connections of a specific signal type going through the specified SWIO or SWCS circuit pack and ignores all other cross-connections. For example, the **RTRV-PATH-VT1** command only reports VT1.5 cross-connections and ignores DS1 and STS-1 cross-connections.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## RTRV-PATH-{STS1|T1|VT1}

### Input Format

---

RTRV-PATH- {STS1|T1|VT1} : [a] : b : [c] ;

### Input Parameters (Continued)

---

**b Output Port/Equipment Location (LOC):**

**(STS1):** STS-1 Output Port/Equipment Location: { {1-32}-{1-15}, SWIO-{1-32}, SWCS-{1-32}, SMUX-{1-32}-{1-15} }

**(T1):** DS1 Output Port/Equipment Location: { {1-32}-{1-31}-{1-28}, SWIO-{1-32}, SWCS-{1-32}, MUX-{1-32}-{1-31}, SWIF-{1-32}-{1-8}, SMUX-{1-32}-{1-15} }

**(VT1):** VT1.5 Output Port/Equipment Location: { {1-32}-{1-15}-{1-28}, SWIO-{1-32}, SWCS-{1-32}, SMUX-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** For T1 and VT1, Multiple ports/circuit packs can be specified using restrictive multiple addressing. For STS1, if SWIO or SWCS is specified, multiple addressing is not allowed.

Specifies the Output Port. This command is completed for a range of ports provided that at least one port has an established cross-connect. The output only shows the paths of the cross-connected ports within that range, while ignoring other ports.

**(STS1|VT1):** The (STS-1|VT1.5) Port can be on an SMUX circuit pack.

**(T1):** The DS1 Port can be on a DS1 interface, MUX, or SMUX circuit pack.

**c Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

For the **RTRV-PATH-STS1** command, the normal response for each STS-1 path produces 30 lines of output (one for each sub-channel).

### Normal Response

---

If none of the specified ports are cross-connected, or the specified equipment locations are supporting a cross-connection, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
```

If at least one of the specified ports is cross-connected, or the specified equipment locations is supporting a cross-connection, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* IN,OUT:LOC,R1_IN,X1_OUT:LOC,X1_IN,Y1_OUT:LOC,Y1_IN,T1_OUT */
"d,e:f,g,h:i,j,k:l,m,n"
.
.
.
"d,e:f,g,h:i,j,k:l,m,n"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
o
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**d Input Hardware Port (IN):**  
(**STS1**): STS-1 Input Hardware Port: { {1-32}-{1-15}, P }  
(**T1**): DS1 Input Hardware Port: { {1-32}-{1-31,P}-{1-28} }  
(**VT1**): VT1.5 Input Hardware Port: { {1-32}-{1-15,P}-{1-28} }

Specifies the Input Port mapped to the Output Port (see next parameter). *Hardware* means that if the circuit pack that supports the specified port is protected, the circuit pack number (second information component) is replaced with P.

## RTRV-PATH-{STS1|T1|VT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d,e:f,g,h:i,j,k:l,m,n" (Normal Response)  
o (Error Response)

### Output Parameters (Continued)

---

e **Output Hardware Port (OUT):**

(STS1): STS-1 Output Hardware Port: { {1-32}-{1-15,P} }

(T1): DS1 Output Hardware Port: { {1-32}-{1-31,P}-{1-28} }

(VT1): VT1.5 Output Hardware Port: { {1-32}-{1-15,P}-{1-28} }

Specifies an Output Port from the range specified in the input LOC parameter (b). *Hardware* means that if the circuit pack that supports the specified port is protected, the circuit pack number (second information component) is replaced with P.

f **Input SWIO Location (LOC):**

{ SWIO-{1-32} }

Specifies the SWIO circuit pack whose input stage is used in the cross-connection of the addressed DS1, VT1.5, or EC-1 (one of the 30 STS-1-carrying sub-channel) Ports.

g **In R1 Switch Tributary (R1\_IN):**

{ {0-31}-{0-15} }

Specifies the Incoming R1 Switch Tributary which is the input to the input stage of the SWIO circuit pack specified by the LOC parameter (f). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries for the various signal types are:

- STS1 - one of the 30 STS-1-carrying sub-channel.
- T1 - DS1-carrying sub-channel.
- VT1 - VT1.5-carrying sub-channel.

h **Out X1 Switch Tributary (X1\_OUT):**

{ {0-31}-{0-15} }

Specifies the Outgoing X1 Switch Tributary which is the output of the input stage of the SWIO circuit pack specified by the LOC parameter (f). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries are defined in the R1\_IN parameter (g).

i **SWCS Location (LOC):**

{ SWCS-{1-32} }

Specifies the SWCS circuit pack whose center stage is used in the cross-connection of addressed DS1, VT1.5, or STS-1 (one of the 30 STS-1-carrying sub-channel) Ports.

j **In X1 Switch Tributary (X1\_IN):**

{ {0-31}-{0-15} }

Specifies the Incoming X1 Switch Tributary which is the input of the SWCS circuit pack specified by the LOC parameter (i). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries are defined in the R1\_IN parameter (g).

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c "d,e:f,g,h:i,j,k:l,m,n" (Normal Response)  
o (Error Response)

### Output Parameters (Continued)

---

- k Out Y1 Switch Tributary (Y1\_OUT):**  
{ {0-31}-{0-15} }
- Specifies the Outgoing Y1 Switch Tributary which is the output of the SWCS circuit pack specified by the LOC parameter (i). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries are defined in the R1\_IN parameter (g).
- l Output SWIO Location (LOC):**  
{ SWIO-{1-32} }
- Specifies the SWIO circuit pack whose output stage is used in the cross-connection of addressed DS1, VT1.5, or STS-1 (one of the 30 STS-1-carrying sub-channel) Ports.
- m In Y1 Switch Tributary (Y1\_IN):**  
{ {0-31}-{0-15} }
- Specifies the Incoming Y1 Switch Tributary which is the input of the output stage of the SWIO circuit pack specified by the LOC parameter (l). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries are defined in the R1\_IN parameter (g).
- n Out T1 Switch Tributary (T1\_OUT):**  
{ {0-31}-{0-15} }
- Specifies the Outgoing T1 Switch Tributary which is the output of the output stage of the SWIO circuit pack specified by the LOC parameter (l). The first component gives the line (N-rate channel), and the second component gives the tributary on the line. The tributaries are defined in the R1\_IN parameter (g).
- o Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDRG	Port number is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	Specified circuit pack not provisioned
SNVS	Specified Port is not in valid state
SNVS	MC is not in service

# RTRV-PM-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

RTRV-PM-{EC1|VT1}: [a]:b:[c]::d, [e], [f], ,g, [h], [i];

RTRV-PM-{T1|T3}: [a]:b:[c]::d, [e], [f], ,g, [h], [i];

**Command Name:** Retrieve Performance Monitoring {EC1|T1|T3|VT1}

**Command Category:** Provisioning

**User Privilege Code (UCFC/UCAL):** PM2

**Abortable:** Yes

**REPT DBCHG Message:** No

## Purpose

---

This command retrieves the (STS-1|T1|T3|VT1.5) performance monitoring data for the specified date and time.

**Notes:** A denial message is generated if a user tries to retrieve performance information for a port that has not been provisioned.

If a single port is addressed and all parameters are specified, then the commands are **not** denied based upon the value of the **MONLEV** parameter (e).

If multiple ports and all parameters are specified, then only one interval can be specified. Otherwise, the commands are denied.

If a single port and all parameters are specified, then all intervals can be specified and the commands are **not** denied.

If the **TMPER** parameter (g) is **15-MIN**, **1-HR**, or **SHORTINT** and the **MONTM** parameter (i) is **ALL**, then all short interval data irrespective of the **MONDAT** parameter (h) value is retrieved.

If the **TMPER** parameter (g) is **1-DAY** and the **MONDAT** parameter (h) is **ALL**, then all daily data irrespective of the **MONTM** parameter (i) value is retrieved.

## Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

          Specifies the Target ID of the DACS IV-2000.

## Input Format

---

RTRV-PM-{EC1|VT1}: [a]:b:[c]::d,[e],[f],,g,[h],[i];  
RTRV-PM-{T1|T3}: [a]:b:[c]::[d],[e],[f],,g,[h],[i];

## Input Parameters (Continued)

---

- b **Port (PORT):**  
**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified (ranges are allowed). Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

**(T1|T3):** Multiple ports can be specified using restrictive multiple addressing.

Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs. If some of the ports specified in this parameter cannot be retrieved (but at least one can), the command completes with the termination report code of PRTL instead of COMPLD.

**(T3):** If the DS3 Port specified has its **METRIC** parameter provisioned to measure BPVs, this command is denied.

- c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d **Monitored Parameter (MONPARM):**  
{ <see below>, ALL }

**Default:**

**(EC1|VT1):** None

**(T1|T3):** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies Monitored Parameter for which value is requested. Valid values for monitored parameters are given in the **Monitored Parameters** appendix. If more than one port is specified in the **PORT** parameter (b), the value **ALL** is not a valid for this parameter. If this parameter is set to **ALL**, and more than one port is specified in the **PORT** parameter and/or the value **ALL** is given for the **MONTM** parameter (i), this command is be denied with the error code IDNC.

**(T1):** If the value of the **PORT** parameter (b) is **SFPATH**, **ESFPATH**, or **LINE**, only the value **ALL** is allowed for this parameter.

## RTRV-PM-{EC1|T1|T3|VT1}

### Input Format

---

RTRV-PM-{EC1|VT1}: [a]:b:[c]::d,[e],[f],,g,[h],[i];  
RTRV-PM-{T1|T3}: [a]:b:[c]::d,[e],[f],,g,[h],[i];

### Input Parameters (Continued)

---

e        **Monitored Level (MONLEV):**  
          **(EC1):** {0-4479000}-{UP,DN}  
          **(T1):** {0-134217728}-{UP,DN}  
          **(T3):** {0-811987200}-{UP,DN}  
          **(VT1):** {0-1048575}-{UP,DN}

**Default:** 1-UP  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the discriminating level for the requested Monitored Parameter. Only one Monitored Parameter (**MONPARM** parameter [d]) can be specified in order to use this parameter. This parameter must be set to the default value if **ALL** is specified in the **MONPARM** parameter.

- **UP** - specifies that monitored parameters with values equal to or greater than the value specified are reported.
- **DN** - specifies that monitored parameters with values equal to or less than the value specified are reported.

f        **Location (LOCN):**  
          **(EC1|T1|T3):** { NEND, FEND, ALL }  
          **(VT1):** { NEND }

**Default:**  
          **(EC1|T1|T3):** ALL  
          **(VT1):** NEND  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the location for which performance data is requested.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.
- **ALL** - indicates both near- and far-end locations.

## Input Format

---

RTRV-PM-{EC1|VT1}: [a]:b:[c]::d,[e],[f],,g,[h],[i];  
RTRV-PM-{T1|T3}: [a]:b:[c]::[d],[e],[f],,g,[h],[i];

## Input Parameters (Continued)

---

- g**      **Time Period (TMPER):**  
          **(EC1|VT1):** { SHORTINT, 15-MIN, 1-DAY }  
          **(T1|T3):** { SHORTINT, 15-MIN, 1-HR, 1-DAY }  
  
          **Default:** SHORTINT  
          **Initial System Value:** 15-MIN  
          **Addressing Rules:** None

Specifies accumulation time period for the performance monitoring information. If this parameter is **SHORTINT**, the system replaces **SHORTINT** with the provisioned short interval length (**15-MIN** or **1-HR**).

**(T1):** The value entered for this parameter must agree with the provisioned value for Short Accumulation Period (except when **1-DAY** is specified). The Short Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

**(T3):** For PSET#1 (CB149) data, a value of **1-DAY** for this parameter gives the 96 15-minute rolling total. The value entered for this parameter must agree with the provisioned value for DS3 Accumulation Period (except when **1-DAY** is specified). The DS3 Accumulation Period is set by the **ED-NE** command and can be retrieved by the **RTRV-NE** command.

- h**      **Monitored Date (MONDAT):**  
          { {1-12}-{1-31}, CURVAL, NOVAL, ALL }  
  
          **Default:** CURVAL (the current date)  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the date of the beginning of the performance monitoring period (specified in **TMPER** parameter [g]) as MM-DD, where MM is the month and DD is the day of month. If **ALL** is specified for this parameter, all of the daily accumulation registers are retrieved.

**(EC1|VT1):** If the **TMPER** parameter (g) is **15-MIN**, this parameter can **not** be **ALL**. If the **TMPER** parameter is **15-MIN** and the **MONTM** parameter (i) is **ALL**, this parameter must be **NOVAL**.

**(T1|T3):** If the **TMPER** parameter (g) is **15-MIN** or **1-HR**, this parameter must **not** be **ALL**. If the **TMPER** parameter is **15-MIN** or **1-HR** and the **MONTM** parameter (i) is **ALL**, this parameter must be **NOVAL**.

**(T3):** When this parameter is set to **ALL**, the 7 daily totals are provided for PSET#2 (TR820) data and the 96 15-minute summary is provided for PSET#1.

## RTRV-PM-{EC1|T1|T3|VT1}

### Input Format

---

RTRV-PM-{EC1|VT1}: [a]:b:[c]::d, [e], [f], , , g, [h], [i];

RTRV-PM-{T1|T3}: [a]:b:[c]::[d], [e], [f], , , g, [h], [i];

### Input Parameters (Continued)

---

i        **Monitored Time (MONTM):**  
          { {0-23}-{0,15,30,45}, CURVAL, NOVAL, ALL }

**Default:** CURVAL, (beginning time of the current interval)

**Initial System Value:** None

**Addressing Rules:** None

Specifies the beginning time of day of the performance monitoring period (specified in the **TMPER** parameter [g]) as HH-MM, where HH is the hour and MM is minutes. If the **MONDAT** parameter (h) is not omitted, this parameter also must not be omitted. If the **TMPER** parameter is **1-DAY**, this parameter must be **NOVAL**. If **ALL** is specified for this parameter, all of the performance monitoring data available at that time is generated. If **ALL** is specified for the **MONPAR** parameter (d), this parameter cannot be set to **ALL**, or this command is denied with the error code **IDNC**.

**(T1):** If **ALL** is specified, all of the Short Accumulation Period registers are retrieved. An example use of this parameter is; if the values for the **TMPER** (g), **MONDAT** (h), and this parameters are set to the initial system values or default values, the monitored parameter(s) for the current Short Accumulation Period is reported in the output response.

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD
```

If one or more of the specified conditions is active on one or more of the specified ports, the normal response is, (one line is generated for each active condition):

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
/* LOC:MONPARM,MONVAL,VLDTY,LOCN,,TMPER,MONDAT,MONTM */  
"j:k,l,m,n,,o,p,q"  
.  
.  
.  
"j:k,l,m,n,,o,p,q"  
;
```

In the case of partial completion, the termination report code COMPLD is replaced by PRTL.

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
r  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- j Port (PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(T3): DS3 Port: {1-32}-{1-31}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the port for which performance data is retrieved.
- k Monitored Parameter (MONPARM):**  
{ <see below> }
- Specifies the Monitored Parameter for which value is retrieved. Valid values for this parameter are given in the **Monitored Parameters** appendix.

## RTRV-PM-{EC1IT1IT3IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"j:k,l,m,n,,o,p,q" (Normal Response)  
r (Error Response)

### Output Parameters (Continued)

---

- l Monitored Value (MONVAL):**  
{ {0-4294967295} }
- Specifies the measured value of the monitored parameter. Valid values for this parameter are given in the **Monitored Parameters** appendix.
- (T1):** This parameter is omitted if the VLDTY parameter (m) is NA.
- m Validity (VLDTY):**  
**(EC1IVT1):** { COMPL, NA, PRTL, LONG, ADJ }  
**(T1IT3):** { COMPL, NA, PRTL }
- Specifies the validity indicator for the monitoring information.
- **COMPL** - indicates data provided is accumulated over the entire time period. An omitted value is the same as COMPL, and is preferred for output.
  - **NA** - indicates data is not available.
  - **PRTL** - indicates data provided can be invalid or does not cover an entire time period.
  - **LONG** - indicates the interval was longer than normal because of a system clock change.
  - **ADJ** - indicates that the monitored value has been adjusted with the **INIT-REG- {EC1|VT1}** command.
- n Location (LOCN):**  
**(EC1IT1IT3):** { NEND, FEND }  
**(VT1):** { NEND }
- Specifies single location for which the performance monitoring value is retrieved.
- **NEND** - indicates a near-end location.
  - **FEND** - indicates a far-end location.
- o Time Period (TMPER):**  
**(EC1IVT1):** { 15-MIN, 1-DAY }  
**(T1IT3):** { 15-MIN, 1-HR, 1-DAY }
- Specifies accumulation time period for the performance monitoring information.
- p Monitored Date (MONDAT):**  
{ {1-12}-{1-31} }
- Specifies the date of the beginning of the performance monitoring period (specified in the TMPER parameter [o]) as MM-DD, where MM is the month and DD is the day of month.

**Output Format**

---

TID YY-MM-DD HH:MM:SS  
 M c (Normal Response)  
 "j:k,l,m,n,,o,p,q" (Error Response)  
 r

**Output Parameters (Continued)**

---

q **Monitored Time (MONTM):**  
 { {0-23}-{0,15,30,45} }  
 Specifies the beginning time of day of the performance monitoring period (specified in the **TMPER** parameter [o]) as HH-MM, where HH is the hour and MM is minutes.  
**(EC1IT3IVT1):** If the **MONDAT** parameter (p) is not omitted, this parameter also is not omitted. If the **TMPER** parameter (o) is 1-DAY, this parameter is omitted.

r **Error Code (ERRCDE):**  
 { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENRE	Interface module is not a DS3 Interface Module (16 or 32)
IDNC	The <b>MONPAR</b> parameter (d) is <b>ALL</b> and the <b>PORT</b> parameter (b) specifies a range of ports, the <b>MONLEV</b> parameter (e) is not 1-UP, or either the <b>MONDAT</b> (h) or <b>MONTM</b> (i) parameter is <b>ALL</b>
IDNC	The value of the <b>MONLEV</b> parameter (e) is greater than the maximum value allowed for the parameter
IDNC	The <b>MONDAT</b> parameter (h) is <b>ALL</b> and the <b>TMPER</b> parameter (g) is 15-MIN, the <b>MONTM</b> parameter (i) is <b>ALL</b> or is not <b>NOVAL</b>
IDNC	The <b>TMPER</b> parameter (g) is 1-HR or 15-MIN and <b>MONDAT</b> parameter (h) is <b>ALL</b> or the <b>MONTM</b> parameter (i) is <b>NOVAL</b>
IDNC	The <b>TMPER</b> parameter (g) is 15-MIN and the <b>MONTM</b> parameter (i) is <b>ALL</b> and the <b>MONDAT</b> parameter (h) is not <b>NOVAL</b>
IDNC	The <b>MONDAT</b> parameter (h) is <b>NOVAL</b> and the <b>MONTM</b> parameter (i) is <b>NOVAL</b>
IDNC	The <b>MONTM</b> parameter (i) is <b>ALL</b> and <b>MONDAT</b> parameter (h) is not <b>NOVAL</b>
IDNC	The <b>MONTM</b> parameter (i) is not <b>NOVAL</b> and the <b>TMPER</b> parameter (g) is 1-DAY
IDNC	Performance monitoring parameter is not valid for the framing format
IDNC	Performance monitoring data of multiple time intervals is queried for a range of circuit packs
IDNV	The <b>MONPARM</b> parameter (d) is not valid for the port specified or is <b>LBC</b> and the date is not the current date
IDNV	More than one Port specified and <b>ALL</b> given for the <b>MONPARM</b> parameter (d)

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
IDRG	Facility/equipment addressing out of range
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Any database access failure
SNDA	No performance monitoring data is available for the specified date and time
SNIS	Circuit pack or interface module is bad, failed, or not in service
SNPV	Circuit pack is not provisioned
SNPV	MUX circuit pack is not <b>AXM68</b> (MUX2) type or is not provisioned
SNPV	DS3 performance monitoring type is <b>NONE</b>
SNPV	Parameter name is not a member of the current Performance Monitoring set
SNPV	The port or range of ports specified must have at least one provisioned port
SNPV	Interface module is not provisioned
SNPV	Accumulation Time Period value entered is different from provisioned value
SNPV	Querying counts of line performance monitoring parameters for MUX circuit packs doing path performance monitoring and vice versa
SNVS	MC is not in service
SNVS	MUX circuit pack is bad or not present
SNVS	Slot has a blank circuit pack
SNVS	MUX circuit pack is in <b>INIT</b> state
SNVS	The performance monitoring primitive of the MUX circuit pack is LCV
SNVS	Circuit pack type is not correct
SNVS	Port type is not correct (QRSS Port)
SROF	Command failed to complete due to internal failures
SROF	Range of circuit packs specified and the command failed to complete for all of them
SROF	No performance monitoring data is available because of multiple failures

## RTRV-PMCNFGRN-T1

### INPUT FORMAT

---

RTRV-PMCNFGRN-T1: [a]:b:[c];

**Command Name:** Retrieve Performance Monitoring Configuration T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

#### Purpose

---

This command retrieves the Camp-on, automatic Camp-on, and/or Scanning configuration of the DS1 facilities (including DS1 tributaries within DS3 or SONET facilities). Either the DS1 Ports being monitored can be addressed or the PMGR Ports performing the monitoring can be addressed, to retrieve the configuration information.

**Notes:** This command does not retrieve the red-lined status of a performance monitoring connection.

This command is allowed irrespective of the Active Signal Type of the port.

#### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Performance Monitored or Monitored DS1 Port (DS1):**  
          { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple DS1 Ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported, and if all of the ports specified are on unprovisioned circuit packs, this command is denied.
- Specifies the DS1 Ports that are to report their performance monitoring configuration.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

# RTRV-PMCNFGRN-T1

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified DS1 Ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

If at least one of the specified DS1 Ports has a performance monitor connected to it, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* MONPORT: PORT, STATE */
"d:e,f"
.
.
.
"d:e,f"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
g
{ "<parsable text string>" }
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.
- d Monitored DS1 Port (MONPORT):**  
{ {1-32}-{1-31}-{1-28} }

Specifies the DS1 Port being monitored.
- e Performance Monitored DS1 Port (PORT):**  
{ {1-32}-{1-31}-{1-28} }

Specifies the DS1 Port doing the performance monitoring.
- f DS1 Performance Monitoring Port State (STATE):**  
{ PM-REL, PM-CMPN, PM-AUTOCMPN-IDLE, PM-AUTOCMPN, PM-SCAN, PM-SCAN-IDLE }

Specifies the state of the specified DS1 Port. Definitions for DS1 Performance Monitoring states are listed in the **State Names** appendix.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"d:e,f" (Error Response)  
g

### Output Parameters (Continued)

---

g **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data not valid
IDRG	Input data out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNAS	No ports are assigned
SNVS	MC is not in service

# RTRV-PMMODE-{EC1|VT1}

## INPUT FORMAT

---

RTRV-PMMODE-{EC1|VT1}:[a]:b:[c]::[d];

**Command Name:** Retrieve Performance Monitoring Mode {EC1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the performance monitoring mode. The performance monitoring mode indicates whether performance monitoring is being performed or not on the specified ports.

**Notes:** This command is allowed irrespective of the Active Signal Type of the port.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.
- Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

RTRV-PMODE-{EC1|VT1}:[a]:b:[c]::[d];

### Input Parameters (Continued)

- d        **Location (LOCN):**  
          **(EC1):** { NEND, FEND, ALL }  
          **(VT1):** { NEND }
- Default:**  
                          **(EC1):** ALL  
                          **(VT1):** NEND  
                          **Initial System Value:** None  
                          **Addressing Rules:** None

Specifies location for which the performance monitoring mode is requested.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.
- **ALL** - indicates both near- and far-end locations.

## RTRV-PMODE-{EC1IVT1}

### RESPONSES

---

#### Normal Response

---

If the performance monitoring mode is **OFF**, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

If the performance monitoring mode is **ON**, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC:LOCN,MTYPE */
"e:f,g"
.
.
"e:f,g"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
h
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- e Port (PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the individual port from the range specified in the input **PORT** parameter (b).
- f Location (LOCN):**  
(EC1): { NEND, FEND }  
(VT1): { NEND }
- Specifies the location for which the performance mode is requested.
- g Performance Monitoring Mode Type (MTYPE):**  
(EC1): { S, L, P }  
(VT1): { P }
- Specifies the performance monitoring mode type. More than one mode type per port can be combined on one output line with single ampersands (for example, S&L).
- (EC1): Valid values for this parameter are Path (P), Line (L), and Section (S).
- (VT1): The valid value for this parameter is Path (P).

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"e:f,g" (Error Response)  
h

### Output Parameters (Continued)

---

h **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged on
SNPV	The port or range of ports specified must have at least one provisioned port
SNVS	MC is not in service



### **Input Format**

---

RTRV-PMSCHED- {EC1|T1|T3|VT1} : [a] : [b] : [c] ;

### **Input Parameters (Continued)**

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

# RTRV-PMSCHEM-{EC1|T1|T3|VT1}

## RESPONSES

---

### Normal Response

---

If there are no scheduled reports for the addressed ports, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
;
```

If one or more reports have been scheduled for the addressed ports, the normal response is one of the following forms:

If no ports were entered in the input command, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC: INVL, REPTDAT, REPTTM, NUMINVL, MONPARM, MONLEV, LOCN, , TMPER, TMOFST, */
/* SCHED-PMREPT- {EC1|T1|T3|VT1}::d:f,g,h,i,j,k,l,,m,n, */
.
.
.
/* SCHED-PMREPT- {EC1|T1|T3|VT1}::d:f,g,h,i,j,k,l,,m,n, */
;
```

If ports were entered in the input command, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
/* LOC: INVL, REPTDAT, REPTTM, NUMINVL, MONPARM, MONLEV, LOCN, , TMPER, TMOFST, INH */
"e:f,g,h,i,j,k,l,,m,n,o"
.
.
.
"e:f,g,h,i,j,k,l,,m,n,o"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
p
[ "<parsable text string"> ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
/\* SCHED-PMREPT- {EC1|T1|T3|VT1}::d:f,g,h,i,j,k,l,,m,n, \*/(Normal Response)  
"e:f,g,h,i,j,k,l,,m,n,o" (Normal Response)  
p (Error Response)

## Output Parameters (Continued)

---

- d Port (PORT):**  
(EC1): EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
(T1): DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31},UNIT-{1-32} }  
(T3): DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
(VT1): VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }  
Specifies all of the ports associated with the SCHED-PMREPT- {EC1|T1|T3|VT1} command used in creating the performance monitoring report that contain the ports addressed in the input PORT parameter (b). Multiple addressing can be shown.
- e Port (PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(T3): DS3 Port: {1-32}-{1-31}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}  
Specifies the individual port from the range specified in the input PORT parameter (b).
- f Report Interval (INVL):**  
{ 15-MIN, {1-7}-DAY, {1-24}-HR }  
Specifies the interval between performance monitoring reports.
- g Report Date (REPTDAT):**  
{ {1-12}-{1-31} }  
Specifies the date for the next performance monitoring report as MM-DD, where MM is the month and DD is the day of month.
- h Report Time (REPTTM):**  
{ {0-23}-{0-59} }  
Specifies the time of day for the next performance monitoring report as HH-MM, where HH is the hour and DD is minutes.
- i Number of Intervals (NUMINVL):**  
{ 1-96, CONT }  
Specifies the remaining number of intervals over which the performance monitoring is to be reported.
- CONT - indicates continuous reporting, until canceled with a SCHED-PMREPT- {EC1|T1|T3|VT1} command.
- j Monitored Parameter (MONPARM):**  
{ <see below> }  
Specifies the Monitored Parameter to be reported. Valid values for this parameter are given in the **Monitored Parameters** appendix.
- ALL-PARM - indicates that all valid parameters are being monitored.

# RTRV-PMSCHED-{EC1IT1T3IVT1}

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
/\* SCHED-PMREPT- {EC1|T1|T3|VT1}::d:f,g,h,i,j,k,l,,m,n, \*/(Normal Response)  
"e:f,g,h,i,j,k,l,,m,n,o" (Normal Response)  
p (Error Response)

## Output Parameters (Continued)

---

k **Monitored Level (MONLEV):**  
(EC1): {0-4479000}-{UP,DN}  
(T1): {0-134217728}-{UP,DN}  
(T3): {0-811987200}-{UP,DN}  
(VT1): {0-1048575}-{UP, DN }

Specifies the discriminating level for the requested Monitored Parameter.

- **UP** - specifies that monitored parameters with values equal to or greater than the value specified are reported.
- **DN** - specifies that monitored parameters with values equal to or less than the value specified are reported.

l **Location (LOCN):**  
(EC1IT1T3): { NEND, FEND }  
(VT1): { NEND }

Specifies the location which is being performance monitored.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.

m **Time Period (TMPER):**  
(EC1IVT1): { 15-MIN, 1-DAY }  
(T1IT3): { 15-MIN, 1-HR, 1-DAY }

Specifies accumulation time period for the performance monitoring information.

(T1): If the value entered for this parameter does not agree with the provisioned value of Short Accumulation Period, this command is denied. The Short Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

n **Time Offset (TMOFST):**  
(EC1IVT1): {0-1}-{0-7}-{0-59}  
(T1IT3): {0-7}-{0-23}-{0-59}

Specifies the age of the data register(s). The format for this parameter is DAY-HR-MIN, where DAY ranges from 0-7, HR ranges from 0-23, and MIN ranges from 0-59. The value of this parameter is selected to correspond to a point backwards in time from the completion time of the most recently completed accumulation period. Further, this parameter is related to the value specified for the **TMPER** parameter (m) such that the end of every time period coincides with the end of one of the reporting intervals (**INVL** parameter [f]). Usually the key value of this parameter is an integral multiple of the **INVL** parameter, meaning that the reports contain only completed accumulation periods. By convention, however, a 0-0-0 value for this parameter, or any value less than that of the **TMPER** parameter, results in the selection of the current register (with partial data) or that same register just having completed its accumulation.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
M c
/* SCHED-PMREPT-{EC1|T1|T3|VT1}::d:f,g,h,i,j,k,l,,m,n, */(Normal Response)
"e:f,g,h,i,j,k,l,,m,n,o" (Normal Response)
p (Error Response)
```

## Output Parameters (Continued)

---

The following example illustrate the use of this parameter. Given:

```
INVL parameter (f) = 2-HR
REPTM parameter (h) = 12-05
NUMINVL parameter (i) = 3
TMPER parameter (m) = 15-MIN
TMOFST parameter (n) = 0-2-0
```

The first report is generated at 12:05. The accumulation period contains data for the period beginning two hours before the most recently completed accumulation period (12 noon). That is, the accumulation period is the period with a beginning time of 10 AM, covering 10 AM to 10:15 AM. Additional reports are generated every two hours. The third and final report is generated at 4:05 PM (since the NUMINVL parameter is 3).

o **Report Inhibited (INH):**  
{ INH }

Specifies which ports have scheduled reports that have been inhibited. An omitted value indicates that the scheduled reports have not been inhibited.

p **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error
SNPV	Interface module is not provisioned
SNPV	All circuit packs in address not provisioned
SNPV	Circuit pack is not a MUX2 or SMUX circuit pack
SNPV	Performance Monitoring type is <b>NONE</b>
SNVS	MC is not in service

# RTRV-PORT

## INPUT FORMAT

---

RTRV-PORT: [a]:b:[c];

**Command Name:** Retrieve Port  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** P1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieve the STS-1 or VT1.5 signal format (from the system database) associated with ports on a synchronous interface module.

**Notes:** If the provisioned value of the STS-1 signal format (EC1MAP) does not match the received STS-1 signal format (RCVVEC1MAP), a Signal Label Match Failure (SLMF) alarm is generated. The value UNSPEC is a wild card; it matches any other value.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Port (PORT):**  
{ {1-32}-{1-15}, UNIT-{1-32}, {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned SMUX circuit packs are reported. If all of the ports specified are on unprovisioned SMUX circuit packs, this command is denied.

Specifies one or multiple port(s) on an SMUX circuit pack or all of the ports associated with the specified synchronous interface modules. If any of the ports that are addressed are not provisioned or are not in-service, this command is completed, with no data retrieved from those ports. If none of the equipment associate with the specified set of ports is assigned, this command is denied. If one or more are assigned, the command is executed, and ports associated with unassigned equipment are skipped.

c **Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

The normal response that is output is related to the addressing format used in the `PORT` parameter (b) as follows:

- If 3-level addressing is used (for example, `15-2-1`), the system produces one output line for each VT1.5 Port.
- If `VT1GRP`-level addressing is used (for example, `VT1GRP-15-2`), the system outputs 28 lines, one for each VT1.5 tributary.
- If 2-level port addressing is used (for example, `15-2`), the system produces one output line for the EC-1 Port (15-2).
- If `UNIT`-level addressing is used (for example, `UNIT-1`), for each provisioned SMUX circuit pack on `UNIT-1`, the system outputs one line for the EC-1 Port followed by 28 output lines for the tributaries. These 29 lines are output in message segments consisting of 8 lines each.

Either the `EC1MAP` parameter (e) value or the `VTMAP` parameter (g) value is specified. The keywords for the parameters which are not used appear without values in the normal response (see below):

For EC-1 Ports:

```
"d:EC1MAP=value,RCVEC1MAP=,VTMAP=,RCVVTMAP=:i"
```

For VT1.5 Ports:

```
"d:EC1MAP=,RCVEC1MAP=,VTMAP=value,RCVVTMAP=:i"
```

If multiple addressing is used to specify ports, either multiple EC-1 Ports or multiple VT1.5 Ports are specified, but not both, or the command is denied.

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:<>:ACTSIG */
"d:<e f g h>:i"
.
.
.
"d:<e f g h>:i"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
j
["<parsable text string>"]
;
```

## RTRV-PORT

### Output Parameters

---

- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d**      **Port (PORT):**  
          { {1-32}-{1-15}, {1-32}-{1-15}-{1-28} }
- Specifies the individual port from the range specified in the input **PORT** parameter (b).
- e**      **Provisioned EC-1 Format (EC1MAP):**  
          EC1MAP = { UNSPEC, ASYN, SYNC, VTFLOAT, VTLOCK }
- Specifies the provisioned line format of an EC-1 Port.
- **UNSPEC** - indicates equipped Synchronous Payload Envelope (SPE) of unspecified format.
  - **ASYN** - indicates DS3 mapped to STS-1 asynchronous.
  - **SYNC** - indicates STS-1 synchronous mapping for DS3 Byte Observable Synt-ran (synchronous DS3 transmission).
  - **VTFLOAT** - indicates floating VT mode.
  - **VTLOCK** - indicates locked VT mode (cannot transport asynchronously mapped SPE).
- f**      **Received EC-1 Format (RCVEC1MAP):**  
          RCVEC1MAP = { }
- This parameter is reserved for a future release.
- g**      **Provisioned VT1.5 Format (VTMAP):**  
          VTMAP = { UNSPEC, ASYN, BIT, BYTE }
- Specifies the provisioned VT1.5 type within an STS-1 signal.
- **UNSPEC** - indicates equipped of unspecified format.
  - **ASYN** - indicates asynchronous DS1 mapping
  - **BIT** - indicates bit synchronous DS1 mapping
  - **BYTE** - indicates byte synchronous DS1 mapping
- h**      **Received VT1.5 Format (RCVVTMAP):**  
          RCVVTMAP = { }
- This parameter is reserved for a future release.
- i**      **Active Signal Type (ACTSIG):**  
          { EC1, T1, VT1 }
- Specifies the signal type active on the port. If the port is an EC-1 Port, the only valid values are **EC1** and **VT1**. If the port is a VT1.5 or T1 Port, the only valid values are **T1**, **VT1**, and **EC1**.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:<e f g h>i" (Normal Response)  
j (Error Response)

### Output Parameters (Continued)

---

j **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Any of the input parameters is invalid
IDNV	System failed to get all specified port ranges
IDRG	Port requested is out of range
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SDNC	All addressed ports are not provisioned as EC-1/VT1.5
SNAS	All specified ports are not in assigned state
SNIS	All addressed ports are not in-service
SNPV	All addressed ports are not provisioned
SNVS	MC is not in service

# RTRV-PRMTR-LINK

## INPUT FORMAT

---

RTRV-PRMTR-LINK: [a] : [b] : [c] ;

**Command Name:** Retrieve Parameter Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves provisioning information and service data associated with administrative or data links.

**Notes:** Parameters (l) through (aa) apply to X.25 links only. For parameters (l) through (z), non-X.25 links output a value of 0. For non-X.25 links, parameter (aa) is omitted.

### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6}, ALL }
- Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple links can be specified using full multiple addressing.
- Specifies the administrative or data link.
- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:STATE,PTYPE,BAUD,MESSAGE,DIALOG/TLMTRY,POLL,FLOW, */
/* K,N2,T1,T3,W,P,T20,T22,T23,T25,T26,R20,R22,R23,R25,D-BIT */
"d:e,f,g,h,i,j,k,"
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa"
.
.
"d:e,f,g,h,i,j,k,"
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
ab
{ "<parsable text string>" }
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Identifies the individual administrative or data link specified in the input LINKID parameter (b).
- e Equipment State (STATE):**  
{ <see below> }
- Gives the state of the specified administrative or data link. Valid states for links along with their definitions are listed in the **State Names** appendix.
- f Protocol Type (PTYPE):**  
{ SNIDER, TABS, TBOS, X.25 }
- Indicates the type of protocol supported on the specified link.
- g Baud Rate (BAUD):**  
{ 300, 1200, 2400, 4800, 9600 }
- Specifies the transmission rate for the specified link.

# RTRV-PRMTR-LINK

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e,f,g,h,i,j,k," (Normal Response)  
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa" (Normal Response)  
ab (Error Response)

## Output Parameters (Continued)

---

**h Message Screening (SCREEN):**  
{ INPUT, AUTO, ALL, DBAUTO, DBALL, CURVAL }

Specifies what output messages are displayed by the link if no user is logged on to the link or virtual circuit.

- **INPUT** - specifies that the link receives responses to its own commands.
- **AUTO** - specifies that the link receives responses to its own commands and autonomous messages except REPT DBCHG messages due to manual command input.
- **ALL** - specifies that the link receives responses to its own commands, autonomous messages except REPT DBCHG messages due to manual command input, and responses to commands from other links.
- **DBAUTO** - specifies that the link receives responses to its own commands and autonomous messages including REPT DBCHG messages due to manual command input.
- **DBALL** - specifies that the link receives responses to its own commands, autonomous messages including REPT DBCHG messages due to manual command input, and responses to commands from other links.

**i Dialog Mode (DMODE):**  
{ MENU, COMMAND }  
**Telemetry Set (TLMTRY):**  
{ SUMMARY, DETAILED, EXTENDED }

This parameter is dependent upon how the link is provisioned (that is, which protocol type was specified for the link).

For links with Snider or X.25 protocol, this parameter specifies the Dialog Mode for the link.

- **MENU** - indicates that the link supports full dialog/prompt procedure, and the input command is echoed in the output message.
- **COMMAND** - indicates that the dialog/prompt procedure is only entered through a question mark, and only the CTAG from the input command is echoed in the output message.

For links with TABS or TBOS protocol (CILINK- { 1, 2 } -4), this parameter specifies the telemetry set that is being used. Detailed definitions for the different telemetry sets is contained in the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance manual (AT&T 365-340-701)*.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e,f,g,h,i,j,k," (Normal Response)  
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa" (Normal Response)  
ab (Error Response)

## Output Parameters (Continued)

---

j **Poll Timing (POLL):**  
{ 10-60 }

Specifies how often (in seconds) the system expects a poll request from the telemetry remote. This parameter only appears for the telemetry links (CILINK- { 1, 2 } -4).

k **Flow Control (FLOW):**  
{ DC3, ACK }

Specifies the method of flow control for output messages. These protocols only apply to Snider links. If the PTYPE parameter (f) is not **SNIDER**, this parameter is omitted.

- **DC3** - suspends sending output characters when a DC3 (cntrl-S) character is received. Sending of output characters resumes at the point of suspension when a DC1 (cntrl-Q) or <break> is received.
- **ACK** - sends an ENQ (cntrl-E) character before each message or message segment and waits for an ACK (cntrl-F) character before sending that output message.

l **Link Window Size K (K):**  
{ 2-7 }

Specifies the number of maximum number of outstanding l frames.

m **Counter N2 (N2):**  
{ 2-15 }

Specifies the maximum number of attempts to obtain an appropriate response to a transmitted X.25 frame (link layer), including the initial transmission following the expiry of Timer T1.

n **Timer T1 (T1):**  
{ 2-20 }

Specifies the link layer acknowledgment timer. If Timer T1 (seconds) expires, the DACS IV-2000 initiates the retransmission of a link level frame.

o **Timer T3 (T3):**  
{ 4-120 }

Specifies the disconnect (or idle channel) timer. This parameter defines the time the DCE waits to be assured that the link is in a nonactive state. If Timer T3 (seconds) expires, the channel is assumed idle and the link is removed.

p **Network Window Size W (W):**  
{ 1-7 }

Specifies the maximum number of unacknowledged packets. The same window size is used for both ends of a call. This parameter can be negotiated at call setup.

## RTRV-PRMTR-LINK

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e,f,g,h,i,j,k," (Normal Response)  
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa" (Normal Response)  
ab (Error Response)

### Output Parameters (Continued)

---

- q Packet Size P (P):**  
{ 128, 256 }
- Specifies the network level packet size in octets. This parameter can be negotiated at call setup.
- r Timer T20 (T20):**  
{ 30-180 }
- Specifies the Restart Request response timer. If Timer 20 (seconds) expires, the Restart Request packet is retransmitted and Timer T20 is restarted up to a maximum of Counter R20 times.
- s Timer T22 (T22):**  
{ 30-180 }
- Specifies the Reset Request response timer. If Timer T22 (seconds) expires, the Reset Request packet is retransmitted and Timer T22 is restarted up to a maximum of Counter R22 times.
- t Timer T23 (T23):**  
{ 30-180 }
- Specifies the disconnect (or idle channel) timer (packet layer). If Timer T23 (seconds) expires, the Clear Request packet is retransmitted and Timer T23 is restarted up to a maximum of Counter R23 times.
- u Timer T25 (T25):**  
{ 30-200 }
- Specifies the Data Packet Acknowledgment timer. If Timer T25 (seconds) expires, all unacknowledged data packets are retransmitted and Timer T25 is restarted up to a maximum of Counter R25 times.
- v Timer T26 (T26):**  
{ 30-180 }
- Specifies an Interrupt Response Timer. If Timer T26 (seconds) expires, the Reset Request packet is transmitted.
- w Counter R20 (R20):**  
{ 1-10 }
- Specifies the Restart Request retransmission counter. If Counter R20 expires, the link is removed from service.
- x Counter R22 (R22):**  
{ 1-10 }
- Specifies the Clear Request retransmission counter. If Counter R22 expires, a Clear Request packet is transmitted.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e,f,g,h,i,j,k," (Normal Response)  
"l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,aa" (Normal Response)  
ab (Error Response)

## Output Parameters (Continued)

---

- y       **Counter R23 (R23):**  
          { 1-3 }
- Specifies the data packet retransmission counter. If Counter R23 expires, the virtual circuit is cleared.
- z       **Counter R25 (R25):**  
          { 0-3 }
- Specifies the Data Packet retransmission counter. If Counter R25 expires, a Reset Request packet is transmitted.
- aa       **D Bit (D-BIT):**  
          { ON, OFF }
- Specifies whether remote DTE acknowledgment in the network is supported.
- ON - indicates the D-bit is set.
  - OFF indicates the D-bit is not set.
- ab       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IDNV   | Link ID is invalid   |
| IISP   | Syntax or punctuation error on entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |

# RTRV-PRMTR-SFTWR

## INPUT FORMAT

---

RTRV-PRMTR-SFTWR: [a] : : [b] ;

**Command Name:** Retrieve Parameter Software  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves information to reference the software for internal use.

**Notes:** This command does not follow the normal system rules for single threading. It is executed as soon as it is received (that is, ahead of any commands that were entered before it).

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* REFERENCE_#, DATE, COMMENT */
"c,d,
e"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
g
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Reference Number (REFERENCE\_#):**  
{ 4-00-{1-99}-r-{0-99}.{0-99}.{0-99} }
- Specifies a number, used by AT&T Network Systems, for the purpose of identifying the software running on a DACS IV-2000. The first four components represent the software release. The *r* specifies a DACS IV-2000 (256) software load. The last three components are for AT&T use.
- d Date (DATE):**  
{ YYMMDD }
- Specifies the date associated with the REFERENCE\_# parameter (c). The date is specified as YYMMDD, where YY is the last two digits of the year {00-99}, MM is the month {01-12}, and DD is the day of the month {01-31}.
- e Comment (COMMENT):**  
{ AT&T Proprietary Copyright (c) 1995 AT&T All Rights Reserved }
- Specifies any general information that needs recording concerning the software which is not specified elsewhere.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b (Normal Response)  
"c, d, (Normal Response)  
e, f" (Error Response)  
g

### Output Parameters (Continued)

---

f **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	Privilege, login is not active
SNVS	MC is not in service

## RTRV-SCANTH-NE

### INPUT FORMAT

---

RTRV-SCANTH-NE: [a] : : [b] : [c] , [d] , [e] ;

**Command Name:** Retrieve Scan Threshold Network Element  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves scan monitoring threshold values for the performance monitoring parameters.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.
- c       **Monitored Parameter (MONPARM):**  
          { <see below>, ALL }  
  
          **Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the particular monitored parameter for which threshold level is being retrieved. A list of Scan Monitored Parameters along with their definitions is given in the **Monitored Parameters** appendix.

### Input Format

RTRV-SCANTH-NE: [a]::[b]:[c],[d],[e];

### Input Parameters (Continued)

d        **Location (LOCN):**  
          { NEND, FEND, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location from which performance data is retrieved.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.
- **ALL** - indicates both near- and far-end locations.

e        **DS1 Signal Format (FMT):**  
          { ESF, SF, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the DS1 signal type.

- **ESF** - indicates Extended Super Frame.
- **SF** - indicates Super Frame.
- **ALL** - indicates both ESF and SF signal types.

# RTRV-SCANTH-NE

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified circuit packs, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* :MONPARM, LOCN, SIG-FMT, THLEV, TMPER */
":f,g,h,i,j"
.
.
.
":f,g,h,i,j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
k
["<parsable text string>"]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- f Monitored Parameter (MONPARM):**  
{ <see below> }
- Specifies the particular monitored parameter for which threshold level is being retrieved. A list of Scan Monitored Parameters along with their definitions is given in the **Monitored Parameters** appendix.
- g Location (LOCN):**  
{ NEND, FEND }
- Specifies single location for which the performance monitoring value is retrieved.
- h DS1 Signal Format (FMT):**  
{ ESF, SF }
- Specifies the DS1 signal type.
- i Threshold Level (THLEV):**  
{ 0-134217728 }
- Specifies the current threshold level for the monitored parameter. Refer to the Scan Monitored Parameters table of the **Monitored Parameters** appendix for a list of threshold levels.
- j Scan Time Period (TMPER):**  
{ 15-MIN, 1-HR, 1-DAY }
- Specifies the accumulation time period for the performance monitoring information.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
":f,g,h,i,j" (Normal Response)  
k (Error Response)

### Output Parameters (Continued)

---

k **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Specified parameter is not scan performance monitoring parameter
IDNV	Invalid combination of framing format and location entered
IDNV	Invalid combination of parameter and location entered
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## RTRV-SECU-AUD

### INPUT FORMAT

---

RTRV-SECU-AUD: [a] :: [b] : [c] : [d] ;

**Command Name:** Retrieve Security Audit  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S5  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves (partial or all) security-related events that are stored in the DACS IV-2000 security audit database. This command is restricted to a user whose UCFC/UCAL is s5.

**Notes:** The system records up to a 100 security-related events. If this capacity is reached the oldest stored security-related event is removed and the new security-related event recorded as the newest event.

If the command is specified without indicating what recorded security events are to be retrieved (that is, no values are entered for the **DATE** [c], and **TIME** [d] parameters), all recorded security-related events are displayed.

All security audit records are truncated to 80 characters. The command which was issued by a user can be affected by this truncation, but the time, date, and UID of the user who issued the command remain intact. The truncation affects messages which are greater than 80 characters in length.

If the command is specified with a date and/or time, the search starts at the oldest recorded security-related event. The following table lists the security-related events and the statuses associated with these events:

Security-Related Event	Status
ACT-USER	COMPLD or DENY
CANC-USER	COMPLD or DENY
Autonomous Logout	AUTO (CANC-USER)
DLT-SECU-AUD	COMPLD or DENY
DLT-SECU-USER	COMPLD or DENY
ED-SECU-PID	COMPLD or DENY
ED-SECU-LINK	COMPLD or DENY
Number Lock-Out Value Exceeded	AUTO (REPT ALM LINK)
ED-DATE	COMPLD or DENY
ED-SECU-USER	COMPLD or DENY
ENT-SECU-USER	COMPLD or DENY
INIT-SYS	COMPLD or DENY

Messages that are recorded because of incorrect UCFC/UCAL are displayed as *verb modifier[ modifier]*.

### Input Parameters

- a      **Target ID (TID):**  
         { <1-18 LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b      **Correlation Tag (CTAG):**  
         { <1-10 LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- c      **Date (DATE):**  
         { {00-39,86-99}{01-12}{01-31}, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the date to begin retrieving recorded security events from. The date is specified as YYMMDD, where YY is the last two digits of the year {00-39, 86-99}, MM is the month {01-12}, and DD is the day of the month {01-31}. The values for the year are interpreted by the DACS IV-2000 as follows: {00-39} map to years 2000-2039, and {86-99} map to years 1986-1999. If this parameter is specified as **ALL**, the **TIME** parameter (d) must also be specified as **ALL** or this command is denied with the error code IDNV.

- **ALL** - indicates that all security audit records are to be retrieved.

- d      **Time (TIME):**  
         { {00-23}{00-59}{00-59}, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the time to begin retrieving recorded security events from. The time is specified as HHMMSS, where HH is the hour {00-23}, MM is the minutes {00-59}, and SS is the seconds {00-59}. If the **DATE** parameter (c) is specified as **ALL**, this parameter must also be specified as **ALL** or this command is denied with the error code IDNV.

- **ALL** - indicates that all security audit records are to be retrieved.

# RTRV-SECU-AUD

## RESPONSES

---

### Normal Response

---

If a retrieve is done and no security audit records can be found in the security audit database, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
;
```

Based on the provided date and time, if there are security audit records to be retrieved, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
/* STATUS,DATE,TIME,LINKID,UID,COMMAND */
"e,f,g,h,i,j"
.
.
.
"e,f,g,h,i,j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
k
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- e Status (STATUS):**  
{ COMPLD, DENY, AUTO }
- Specifies the status of the recorded security event.
- **COMPLD** - indicates that the command successfully completed.
  - **DENY** - indicates that the command was denied.
  - **AUTO** - indicates the message is due to an autonomous DACS IV-2000 action.
- f Date (DATE):**  
{ {00-39,86-99}{01-12}{01-31} }
- Specified the date the security-related event was detected.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b (Normal Response)  
"e, f, g, h, i, j" (Error Response)  
k

### Output Parameters (Continued)

---

- g Time (TIME):**  
{ {00-23}{00-59}{00-59} }  
Specifies the time the security-related event was detected.
- h Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }  
Specifies the CILINK that the security-related event was initiated over.
- i User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS> }  
Specifies the UID that initiated the security-related event. For invalid login attempts the last UID entered is recorded.
- j Command (COMMAND):**  
{ <see below> }  
Specifies the command verb and modifiers entered causing the recorded security event. This parameter specifies either an input command or autonomous message. Refer to the **Notes** section at the beginning of this command for information on security-related events.
- k Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }  
When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IITA	Invalid Target Identifier
IDNV	Default Date specified with specific Time
PICC	You are not a superuser
PICC	You do not have the proper privilege code to execute the command
PLNA	Privilege login is not active
SNVS	MC is not in service

## RTRV-SECU-LINK

### INPUT FORMAT

---

RTRV-SECU-LINK: [a] : [b] : [c] ;

**Command Name:** Retrieve Security Link  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S2  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the security parameters associated with a CILINK and the UID of users currently logged into the system.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6}, ALL }
- Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple links can be specified using full multiple addressing.
- Specifies the CILINK whose security parameters are to be retrieved.
- **ALL** - retrieves the security information for all of the available CILINKs (CILINK-{1,2}-{1-6}).
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

Multiple data lines for **CILINK**- {1, 2} - {5, 6} can appear if the specified link is currently supporting multiple sessions. A locked-out virtual circuit is considered as a session.

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* LOC, LGN: INACTV: NUMBR, INTRVL, TM: LCKD-OUT */
   "d,e:f:g,h,i:j"
   .
   .
   "d,e:f:g,h,i:j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   k
[  "<parsable text string>"
;
```

### Output Parameters

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.
- d**        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }

Specifies the CILINK whose security parameters are being reported.
- e**        **Login User ID (LGN):**  
          { <1-10 UID LEGAL CHARACTERS> }

Specifies the user identification (UID) of the current login session. This parameter is omitted if there is no current login session.
- f**        **Inactivity (INACTV):**  
          { 0-60 }

Specifies the Inactivity Interval (in minutes) allowed on a login session before that login session is automatically logged off. Activity is defined as an input command received due to that login session.
- g**        **Number Lock-Out (NUMBER):**  
          { 1-10 }

Specifies the number of Invalid Session Setup Attempts in a given interval (see the INTRVL parameter [h]) that are allowed before the channel is locked-out for a given length of time (see the TM parameter [i]), from further attempts to set up a session.

# RTRV-SECU-LINK

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"d,e:f:g,h,i:j" (Error Response)  
k

## Output Parameters (Continued)

---

- h Interval Lock-Out (INTRVL):**  
{ 0-90 }
- Specifies the interval (in minutes) that number of Invalid Session Setup Attempts can occur before that channel is locked-out for a given length of time (see the **TM** parameter [i]) from further attempts to set up a session. If the this parameter is set to 0, the lock-out feature for the addressed CILINK(s) is disabled.
- i Time Lock-Out (TM):**  
{ 1-30 }
- Specifies the interval (in minutes) that the specified CILINK is locked-out from being allowed to establish a login session.
- j Locked-Out User ID (LCKD-OUT):**  
{ <1-10 UID LEGAL CHARACTERS> }
- Specifies the user identification (UID) causing the lock-out on this CILINK. This is the UID used in the last attempted login command.
- k Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IISP   | Syntax or punctuation error in entering the input command        |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |

# RTRV-SECU-USER

## INPUT FORMAT

---

RTRV-SECU-USER : [a] : [b] : [c] ;

**Command Name:** Retrieve Security User  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves privilege parameters associated with UID(s).

**Notes:** When the RTRV-SECU-USER command is executed by a user having a UCFC/UCAL value of S2, S3, or S4, the user must specify his own UID, otherwise the command is denied. Only a superuser can retrieve security parameters for UIDs other than his own.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS>, ALL }

**Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the user identification name. The value ALL is used to designate all users.

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-SECU-USER

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* UID:,UCFC/UCAL:<> */
"d:,e:<f g h i j>"
.
.
.
"d:,e:<f g h i j>"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
k
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS> }
- Specifies the user identification name.
- e User Community Functional Category/User Community Authorization Level (UCFC/UCAL):**  
{ P{1-5}, M{1-5}, T{1-5}, S{1-5}, PM{1-5} }
- The first character specifies the User Community Functional Category (UCFC). The second character specifies the User Community Authorization Level (UCAL). The combined UCFC/UCAL pair comprises the User Privilege Code (UPC). Multiple addressing rules can be used in the output of this parameter. For further information concerning user and superuser privileges, refer to the section titled **Interface Security** in Chapter 1.
- f User Community Priority Level (UCPL):**  
UCPL = { 1-5 }
- Specifies the User Community Priority Level. Input commands from users with higher priority are executed before commands from users with lower priority.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:,e:<f g h i j>" (Normal Response)  
k (Error Response)

## Output Parameters (Continued)

---

- g Message Screening (SCREEN):**  
SCREEN = { INPUT, AUTO, ALL, DBAUTO, DBALL }
- Specifies what output messages are associated with a UID.
- **INPUT** - specifies that the UID receives responses to its own commands.
  - **AUTO** - specifies that the UID receives responses to its own commands and autonomous messages except REPT DBCHG messages due to manual command input.
  - **ALL** - specifies that the UID receives responses to its own commands, autonomous messages except REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.
  - **DBAUTO** - specifies that the UID receives responses to its own commands and autonomous messages including REPT DBCHG messages due to manual command input.
  - **DBALL** - specifies that the UID receives responses to its own commands, autonomous messages including REPT DBCHG messages due to manual command input, and responses to commands from other UIDs.
- h Dialog Mode (DMODE):**  
DMODE = { MENU, COMMAND }
- Specifies the dialog mode for the UID.
- **MENU** - indicates that the UID uses the full dialog/prompt procedure.
  - **COMMAND** - indicates that the dialog/prompt procedure is only entered through a question mark.
- i User Type (UTYPE):**  
UTYPE = { HUMAN, MACHINE }
- Specifies the User Type.
- **HUMAN** - indicates a human user type and receives command verification warnings.
  - **MACHINE** - indicates a nonhuman user type and does not receive command verification warnings.
- j Message Echo (ECHO):**  
ECHO = { ON, OFF }
- Specifies whether REPT LOCL IN messages are received by the UID.
- **ON** - indicates REPT LOCL IN messages are received by the UID.
  - **OFF** - indicates REPT LOCL IN messages are not received by the UID.

# RTRV-SECU-USER

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:,e:<f g h i j>" (Normal Response)  
k (Error Response)

## Output Parameters (Continued)

---

k **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User is not a superuser
PICC	User requesting another user's information is not a superuser
PICC	User does not have proper privilege code to execute this command
PIPW	UID does not exist in database
PLNA	User is not logged in
SNVS	MC is not in service

# RTRV-STATE-{EC1|T1|VT1}

## INPUT FORMAT

---

RTRV-STATE- {EC1|T1|VT1} : [a] : b : [c] : [d] ;

**Command Name:** Retrieve State {EC1|T1|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the state information associated with ports.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { { 1-32 }- { 1-15 }, UNIT- { 1-32 } }  
          **(T1):** DS1 Port: { { 1-32 }- { 1-31 }- { 1-28 }, DS1GRP- { 1-32 }- { 1-31 }, UNIT- { 1-32 } }  
          **(VT1):** VT1.5 Port: { { 1-32 }- { 1-15 }- { 1-28 }, VT1GRP- { 1-32 }- { 1-15 }, UNIT- { 1-32 } }
- Default:** None  
                          **Initial System Value:** None  
                          **Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.
- Specifies the port or all of the ports associated with the specified interface module or group.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
                          **Initial System Value:** None  
                          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-STATE-**{EC1|T1|VT1}**}

### Input Format

---

RTRV-STATE-**{EC1|T1|VT1}**:[a]:b:[c]:[d];

### Input Parameters (Continued)

---

d      **State Qualifier (ST-QUAL):**  
         { <see below> }

**Default:** ALL (all states which apply to the specified ports)

**Initial System Value:** None

**Addressing Rules:** None

Specifies the subset of states which are retrieved. This parameter can be a combination of basic states and modifiers using the combination and grouping rules given in the **State Names** appendix.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* LOC: IN-STATE, OUT-STATE */
   "e:f,g"
   .
   .
   "e:f,g"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   h
[  "<parsable text string>"]
;
```

### Output Parameters

---

- c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- e**        **Port (PORT):**  
          **(EC1):** EC-1 Port: {1-32}-{1-15}  
          **(T1):** DS1 Port: {1-32}-{1-31}-{1-28}  
          **(VT1):** VT1.5 Port: {1-32}-{1-15}-{1-28}
- Identifies the individual port from the range specified in the input **PORT** parameter (b).
- f**        **(DS1IEC-1IVT1.5) Input Port State (IN-STATE):**  
          { <see below> }
- Gives the Input State of the specified port. Valid states for Input Ports along with their definitions are listed in the **State Names** appendix.
- g**        **(DS1IEC-1IVT1.5) Output Port State (OUT-STATE):**  
          { <see below> }
- Gives the Output State of the specified port. Valid states for Output Ports along with their definitions are listed in the **State Names** appendix.

## RTRV-STATE-{EC1|VT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"e:f,g" (Error Response)  
h

### Output Parameters (Continued)

---

h **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	The state requested is not a valid state
IDRG	Port requested is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNAS	No state matches
SNPV	All specified ports were not provisioned
SNPV	RTRV-STATE- {EC1   VT1 } not allowed on asynchronous interface (DS1 interface or MUX circuit packs)
SNVS	MC is not in service

# RTRV-STATE-EQPT

## INPUT FORMAT

---

RTRV-STATE-EQPT: [a]:b:[c]:[d];

**Command Name:** Retrieve State Equipment  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the state information associated with equipment.

**Notes:** This command is allowed when the main controller (MC) is out-of-service (OOS) for the MC and its circuit packs only.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Equipment Location (LOC):**  
{ MC, CC-{0,1}, CPU-{0,1}, MTC-{0,1}, SSC-{0,1}, SEC, ECI-{1,2}, PRI-{1,2}, UI, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UNIT-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNC-{0,1}, DPLL-{0,1}, TB-{0,1}, TX-{0,1}, ALL }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple equipment can be specified using full multiple addressing. Multiple addressing is not allowed for MUXP and SMUXP circuit packs.

Specifies the type of equipment and its location. If a range is specified for this parameter and some of the equipment within the range are unassigned, this command is performed and the unassigned equipment is skipped.

- **SYNC** - references the composite equipment comprised of the DPLL (DPLL-{0,1}) and TBS3 (TB-{0,1}) circuit packs.
- **MC** - references the following equipment: CC-{0,1}, ECI-{1,2}, PRI-{1,2}, SEC, UI, SCI-{1,2}, CPU-{0,1}, MTC-{0,1}, SSC-{0,1}.

## RTRV-STATE-EQPT

### Input Format

---

RTRV-STATE-EQPT: [a] : b : [c] : [d] ;

### Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **State Qualifier (ST-QUAL):**  
          { <see below> }

**Default:** ALL (all states which apply to the specified equipment)

**Initial System Value:** None

**Addressing Rules:** None

Specifies the subset of states which are to be retrieved. This parameter can be a combination of basic states and modifiers using the combination and grouping rules given in the **State Names** appendix.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:STATE */
"e:f"
.
.
.
"e:f"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
g
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- e Equipment Location (LOC):**  
{ MC, CC-{0,1}, CPU-{0,1}, MTC-{0,1}, SSC-{0,1}, SEC, ECI-{1,2}, PRI-{1,2}, UI, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UNIT-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, SMUX-{1-32}-{1-15}, SMUXP-{1-32}, SYNC-{0,1}, DPLL-{0,1}, TB-{0,1}, TX-{0,1} }
- Identifies the individual equipment from the range specified in the input LOC parameter (b).
- f Equipment State (STATE):**  
{ <see below> }
- Gives the state of the specified equipment. Valid states for equipment along with their definitions are listed in the **State Names** appendix.

## RTRV-STATE-EQPT

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"e:f" (Normal Response)  
g (Error Response)

### Output Parameters (Continued)

---

g **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Input data is invalid
IDRG	Specified equipment is out of range
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Execution aborted due to error in implementation
SNAS	Specified equipment is not assigned
SNPV	Specified equipment is not provisioned
SNVS	MC is not in service (does not apply to RTRV-STATE-EQPT: :MC)

# RTRV-SYNCN

## INPUT FORMAT

---

RTRV-SYNCN: [a]::[b];

**Command Name:** Retrieve Synchronization  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the Synchronization Mode for the synchronization equipment within the DACS IV-2000.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-SYCN

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* SMODE, ACTIVE_REF */
"c,d"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
e
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Synchronization Mode (SMODE):**  
{ NORM, HLDOVR, FST, FRNG }
- Specifies the Synchronization Mode which is used.
- **NORM** - indicates Phase-Locked Mode.
  - **HLDOVR** - indicates Holdover Mode.
  - **FST** - indicates Fast-Start Mode.
  - **FRNG** - indicates Free-Running Mode.
- d Active Reference Equipment Location (ACTIVE\_REF):**  
{ SYNCPRI-{0,1}, SYNCSEC-{0,1} }
- Specifies the active timing reference equipment.
- e Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:
- | ERRCDE | Condition  |
|--------|--|
| IISP   | Syntax or punctuation error in entering input command            |
| IITA   | Invalid Target Identifier  |
| PICC   | User does not have proper privilege code to execute this command |
| PLNA   | User is not logged in  |
| SNVS   | MC is not in service   |

# RTRV-SYSID

## INPUT FORMAT

---

RTRV-SYSID: [a] :: [b] :: <c>;

**Command Name:** Retrieve System Identification  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S4  
**Abortable:** No  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the information about the system program and database stored on the disk(s) and running on the DACS IV-2000. This information is used for media validation.

**Notes:** This command is allowed when the MC is in the OOS-MCOND state.

This command retrieves data from all equipped memory devices, not just those that are restored. It is therefore possible to examine the contents of a PRI or SEC without booting or restoring it.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

c        **Database Integrity (DBINTEG):**  
          DBINTEG = { VERIFY, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies whether the database integrity check is run on the contents of the optical disk cartridge. Verifying the database on the optical disk cartridge (SEC) can take up to 10 minutes.

## RTRV-SYSID

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
/* MEMTYPE, IDBLK, SYSTYPE, SWID, TID, DATE, TIME, PATCH#, CALCK, HEADCK, INTEGCK */
"d,e,f,g"
"d,e,f,g,h"
"d,e,f,g,h,i,j,k,l,m,n"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
o
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Memory Type (MEMTYPE):**  
{ WKG, PRI-{1,2}, SEC }
- Specifies the memory device that the information on the given line was read.
- **WKG** - specifies WKG was read.
  - **SEC** - specifies that the SEC was read.
  - **PRI-1** - specifies that PRI-1 was read.
  - **PRI-2** - specifies that PRI-2 was read.
- e ID Block (IDBLK):**  
{ PROG, DBASE, WKG }
- Specifies the identification block with which the information in the given line is associated.
- **PROG** - indicates the data on the line is associated with the DACS IV-2000 system program.
  - **DBASE** - indicates the data on the line is associated with the DACS IV-2000 system database.
  - **WKG** - indicates the data on the line is associated with the DACS IV-2000 system RAM.
- f System Type (SYSTYPE):**  
{ <1-20 LEGAL CHARACTERS>, NOT FOUND }
- Specifies the system type stored in the indicated ID Block (IDBLK parameter, e).

## Output Format

---

	TID YY-MM-DD HH:MM:SS	
M	b	
	"d, e, f, g"	(Normal Response)
	"d, e, f, g, h"	(Normal Response)
	"d, e, f, g, h, i, j, k, l, m, n"	(Normal Response)
	o	(Error Response)

## Output Parameters (Continued)

---

- g System Release (SWID):**  
{ 4-00-{1-99}-r, NOT FOUND }
- Specifies the system release stored in the indicated ID Block (IDBLK parameter, e). The first component of this parameter specifies the release (4), the second component specifies the point-release (00), the third component specifies the issue of the release ({1-99}), and the last component (r) specifies the load of the release [r specifies a DACS IV-2000 (256) software load]. The first, second, and last components are fixed values and the third component is a value within the given range.
- h Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOT FOUND }
- Specifies the Target ID associated with the stored database information. This parameter is omitted when the IDBLK parameter (e) is PROG.
- i Date (DATE):**  
{ {00-99}{01-12}{01-31}, NOT FOUND }
- For the SEC disk drive, this parameter specifies the date when the last **CPY-MEM** from PRI to SEC occurred. For a PRI disk drive, this parameter specifies the date the last manual or autonomous (for example, applying journal files) transfer from WKG to PRI occurred. This parameter is omitted when the IDBLK parameter (e) is PROG or WKG.
- j Time (TIME):**  
{ {00-23}{00-59}{00-59}, NOT FOUND }
- For the SEC disk drive, this parameter specifies the time when the last **CPY-MEM** from PRI to SEC occurred. For a PRI disk drive, this parameter specifies the time the last manual or autonomous (for example, applying journal files) transfer from WKG to PRI occurred. This parameter is omitted when the IDBLK parameter (e) is PROG or WKG.
- k Patch Number (PATCH#):**  
{ <1-40 LEGAL CHARACTERS>, NOVAL }
- Contains free format text indicating the latest patch version on the software release. If no patch of the software has been made, this parameter is NOVAL.
- l Calculated Checksum (CALCK):**  
{ <8 DIGIT HEX NUMBER> }
- Specifies the calculated checksum for the database on the optical disk cartridge. This parameter must match the value of the HEADCK parameter (m). This parameter is displayed when the MEMTYPE parameter (d) is SEC and a database integrity check has been specified in the input command.

## RTRV-SYSID

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"d,e,f,g" (Normal Response)  
"d,e,f,g,h" (Normal Response)  
"d,e,f,g,h,i,j,k,l,m,n" (Normal Response)  
o (Error Response)

### Output Parameters (Continued)

---

m **Header Checksum (HEADCK):**  
{ <8 DIGIT HEX NUMBER> }

Specifies the checksum stored in the database header on the optical disk cartridge. This parameter must match the value of the CALCK parameter (l). This parameter is displayed when the MEMTYPE parameter (d) is SEC and a database integrity check has been specified in the input command.

n **Integrity Check (INTEGCK):**  
{ PASS, FAIL }

Indicates the result of the comparison between the CALCK parameter (l) and the HEADCK parameter (m) values. This parameter is displayed when the MEMTYPE parameter (d) is SEC and a database integrity check has been specified in the input command.

o **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears indicating the condition that caused it:

ERRCDE	Condition
ENMD	The SEC drive is not plugged in
ENMD	The SEC is not present
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	You do not have the proper privilege code to execute the command
PLNA	User is not logged in
SNVS	MC is not in service

# RTRV-TACC-{EC1|T1|VT1}

## INPUT FORMAT

---

RTRV-TACC-{EC1|T1|VT1}:[a]::[b];

**Command Name:** Retrieve Test Access {EC1|T1|VT1}  
**Command Category:** Test access  
**User Privilege Code (UCFC/UCAL):** T1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves information about all types of test access activity in the DACS IV-2000. All Test Signal Generator Receiver Ports are reported whether they are involved in test activity or not.

**Notes:** The RTRV-TACC-T1 command shows both Ports as separate output response lines. All test access functions must be directed towards the odd-numbered Port (that is, if the even-numbered port is specified as the argument to a test access command, the command is denied).

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## RTRV-TACC-{EC1|T1|VT1}

### RESPONSES

---

If no port is provisioned in the system, a denial response with the error code `SNPV` is output.

#### Normal Response

---

If no test access activity is found in the system, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
```

If test access activity is found in the system, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M b COMPLD
/* TAP:PORT-STATE,E-END,CURR-F-END,LINK,UID */
"c:d,e,f,g,h"
.
.
.
"c:d,e,f,g,h"
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M b DENY
i
{ "<parsable text string>" }
;
```

#### Output Parameters

---

- b Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- c Tap Port (TAP):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the Test Access Point, which is represented by the port that is being used as the testport for this test session.

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M b "c:d,e,f,g,h" (Normal Response)  
i (Error Response)

## Output Parameters (Continued)

---

- d TAP Input and Output Port State (PORT-STATE):**  
{ TP-MONE, TP-MONF, TP-SPLTA, TP-SPLTB, TP-SPLTE, TP-SPLTF, TP-LOOPE, TP-LOOPF, TP-MONEF, TP-SPLTEF, TPPV-REL, TPPV-MONE, TPPV-MONF, TPPV-SPLTA, TPPV-SPLTB, TPPV-SPLTE, TPPV-SPLTF, TPPV-LOOPE, TPPV-LOOPF, TPPV-MONEF, TPPV-SPLTEF }
- Gives the state of the test access port (TAP). For a TAP, the basic states are TP or TPPV; and the input and output states are the same. The second part of the state name gives the current test mode (REL refers to idle testports). TAPs in the state TP-MONEF, TP-SPLTEF, TPPV-MONEF, and TPPV-SPLTEF always exist in odd-even pairs. This command shows both ports as separate output lines. TPPV-REL is an idle and designated TAP (as provisioned by the **ENT-TSTPT** command). All test access functions must be directed towards the odd-numbered port (that is, if the even-numbered port is specified as the argument to a **TACC** command, the command is denied).
- e E-End Port (E-END):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the E-End Port for the test session. If there is no test activity, this parameter is omitted.
- f (Current F-End) Port (CURR-F-PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the Current F-End Output Port for the test session. If there is no F-End, this parameter is omitted.
- g Link ID (LINKID):**  
{ CILINK-0-0, CILINK-{1,2}-{1-6} }
- Specifies the CILINK on which the test session was set up. The special value CILINK-0-0 is used to designate a test session that is not associated with any link, and is therefore not subject to automatic release. If there is no test activity, this parameter is omitted.
- h User ID (UID):**  
{ <1-10 UID LEGAL CHARACTERS> }
- Specifies the user identification name of the user that set up the test session. If there is no test activity, this parameter is omitted.

## RTRV-TACC-{EC1IT1IVT1}

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M b  
"c:d, e, f, g, h" (Normal Response)  
i (Error Response)

### Output Parameters (Continued)

---

i **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IIISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNPV	No interface modules/circuit packs are provisioned
SNPV	PM function is active on PMGR
SNVS	MC is not in service

# RTRV-TH-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

RTRV-TH- {EC1|T1|T3|VT1} : [a] : b : [c] : : [d] , [e] , [f] ;

**Command Name:** Retrieve Threshold {EC1|T1|T3|VT1}

**Command Category:** Provisioning

**User Privilege Code (UCFC/UCAL):** PM1

**Abortable:** Yes

**REPT DBCHG Message:** No

## Purpose

---

This command retrieves threshold values for the performance parameters.

**Notes:** This command is allowed irrespective of the Active Signal Type of the port.

- **Additional Notes for T1** - To retrieve path performance monitoring system-wide default threshold values (SF and ESF), the **PORT** parameter (b) must be set to **SFPATH** or **ESFPATH** (as appropriate) and the **MONPARM** parameter (d) must be set to **ALL**. This retrieves all path parameter default thresholds for that particular format.

To retrieve line performance monitoring system-wide default threshold values (SF, ESF, or UNFR), the **PORT** parameter (b) must be set to **LINE** and the **MONPARM** parameter (d) must be set to **ALL**. This retrieves all line parameter default thresholds for any DS1 signal.

## Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## RTRV-TH-**{EC1|T1|T3|VT1}**

### Input Format

---

RTRV-TH-**{EC1|T1|T3|VT1}**:**[a]**:**b**:**[c]**::**[d]**,**[e]**,**[f]**;

### Input Parameters (Continued)

---

**b**      **Port (PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }

**(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, UNIT-{1-32}, DS1GRP-{1-32}-{1-31},  
SFPATH, ESFPATH, LINE }

**(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, this command is denied.

**(T1|T3):** Multiple ports can be specified using restrictive multiple addressing.

Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.

**(T1):** The system-wide DS1 performance monitoring default thresholds can be retrieved by using the values **SFPATH**, **ESFPATH**, and **LINE** (for retrieving path parameters for SF signals, path parameters for ESF signals, and line parameters for SF, ESF, or UNFR signals, respectively).

**c**      **Correlation Tag (CTAG):**

{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

**d**      **Monitored Parameter (MONPARM):**

{ <see below>, ALL }

**Default:** ALL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the particular monitored parameter for which threshold level is being retrieved. A list of Monitored Parameters along with their definitions is given in the **Monitored Parameters** appendix.

**(T1):** If the value of the **PORT** parameter (b) is **SFPATH**, **ESFPATH**, or **LINE**, only the value **ALL** is allowed for this parameter.

## Input Format

---

RTRV-TH- {EC1|T1|T3|VT1}: [a]:b: [c]:: [d], [e], [f];

## Input Parameters (Continued)

---

- e        **Location (LOCN):**  
          (EC1IT1T3): { NEND, FEND, ALL }  
          (VT1): { NEND }
- Default:**  
          (EC1IT3): ALL  
          (VT1): NEND  
          (T1): ALL (which indicates both NEND and FEND for DS1 Ports provided as an ESF format signal, and NEND for DS1 Ports provided as an SF format signal)  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies location where threshold is being retrieved.

- NEND - indicates a near-end location.
- FEND - indicates a far-end location.

- f        **Time Period (TMPER):**  
          (EC1IVT1): { 15-MIN, 1-DAY, ALL }  
          (T1IT3): { 15-MIN, 1-HR, 1-DAY, ALL }
- Default:**  
          (EC1IVT1): ALL (indicating 15-MIN and 1-DAY)  
          (T1IT3): ALL (indicating 15-MIN [or 1-HR] and 1-DAY)  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the accumulation time period for the Monitored Parameter(s) specified in the MONPARM parameter (d).

## RESPONSES

---

### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
```

If one or more of the specified conditions are active on the specified equipment, the normal response is (one line is generated for each active condition):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* LOC:MONPARM, LOCN, , THLEV, TMPER */
" g:h,i,,j,k"
.
.
.
" g:h,i,,j,k"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
l
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.
- g**      **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, SFPATH, ESFPATH, LINE }  
          **(T1):** DS3 Port: { {1-32}-{1-31} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

Specifies the individual port from the range specified in the input **PORT** parameter (b).
- h**      **Monitored Parameter (MONPARM):**  
          { <see below> }

Specifies the particular monitored parameter for which threshold level is being retrieved. A list of Monitored Parameters along with their definitions is given in the **Monitored Parameters** appendix.
- i**      **Location (LOCN):**  
          **(EC1IT1IT3):** { NEND, FEND }  
          **(VT1):** { NEND }

Specifies location where the threshold is being retrieved.

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"g:h,i,,j,k" (Normal Response)  
l (Error Response)

### Output Parameters (Continued)

---

j **Threshold Level (THLEV):**  
(EC1): { 0-4479000 }  
(T1): { 0-134217728 }  
(T3): { 0-811987200 }  
(VT1): { 0-1048575 }

Specifies the current threshold level for the monitored parameter. See the **Monitored Parameters** appendix for more information.

k **Time Period (TMPER):**  
(EC1IVT1): { 15-MIN, 1-DAY }  
(T1IT3): { 15-MIN, 1-HR, 1-DAY }

Specifies the accumulation time period for the performance monitoring information.

l **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNC	The <b>MONPARM</b> parameter (d) is not consistent with the port or the location specified
IDNV	The <b>MONPARM</b> parameter (d) is LBC and the <b>TMPER</b> parameter (f) is 1-DAY
SNAS	The port is not provisioned for the correct signal type
SNPV	The port or range of ports specified must have at least one provisioned port
SNVS	MC is not in service

## RTRV-TH-NE

### INPUT FORMAT

---

RTRV-TH-NE: [a]::[b]::c,[d],[e],,,,,,;

**Command Name:** Retrieve Threshold Network Element  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM1  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command retrieves the Coding Violation (CV) threshold, which trigger the Severely Errored Second (SES) for the STS-1 and VT1.5 signals.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.
- c       **Signal Type (SIGTYPE):**  
          { VT1, EC1 }  
  
          **Default:** None  
          **Initial System Value:** None  
  
          Specifies the Signal Type for which the threshold level is being retrieved.
- VT1 - indicates VT1.5 signal.
  - EC1 - indicates STS-1 signal.

### Input Format

RTRV-TH-NE: [a]:b:[c]::[d],[e],,,,,,,,,;

### Input Parameters (Continued)

d        **Monitored Parameter (MONPARM):**  
          { SESL, SESP, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the particular monitored SES parameter for which a CV threshold level is being retrieved. For STS-1 signals, the allowable parameters are: **SESL** and **SESP**. For VT1.5 signals, the allowable parameter is: **SESP**. The definitions of the parameters are given in the **Monitored Parameters** appendix.

e        **Location (LOCN):**  
          { NEND, FEND, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location from which the threshold is being retrieved.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.

## RTRV-TH-NE

### RESPONSES

---

#### Normal Response

---

If none of the specified conditions are active on the specified equipment, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
```

If one or more of the specified conditions are active on the specified equipment, the normal response is (one line is generated for each active condition):

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
/* SIGTYPE:MONPARM,LOCN,,THLEV */
" g:h,i,,j "
.
.
.
" g:h,i,,j "
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
k
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

- c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

- g**      **Signal Type (SIGTYPE):**  
          { VT1, EC1 }

Specifies the Signal Type for which threshold level is being retrieved.

- h**      **Monitored Parameter (MONPARM):**  
          { SESL, SESP }

Specifies the particular monitored SES parameter for which a CV threshold level is being retrieved. For STS-1 signals, the allowable parameters are: *SESL* and *SESP*. For VT1.5 signals, the allowable parameter is: *SESP*. The definitions of the parameters are given in the **Monitored Parameters** appendix.

**Output Format**

---

```

TID YY-MM-DD HH:MM:SS
M   c
   "g:h,i,,j"           (Normal Response)
   k                   (Error Response)
  
```

**Output Parameters (Continued)**

---

- i        **Location (LOCN):**  
           { NEND, FEND }  
           Specifies the location for which the threshold is being retrieved.
- j        **Threshold Level (THLEV):**  
           { <see below> }  
           Specifies the current threshold level for the Monitored Parameter.

**(FE)SES (FE)CV Threshold Values**

Signal/Layer	Default	Range
STS-1/Line	12	1-55
STS-1/Path	9	1-55
VT1.5/Path	4	1-20

- k        **Error Code (ERRCDE):**  
           { <4 LEGAL CHARACTERS> }  
           When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNC	Invalid combination of parameter and location
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

## SCHED-PMREPT-{EC1|T1|T3|VT1}

### INPUT FORMAT

---

SCHED-PMREPT- {EC1 | T1 | T3 | VT1} : [a] : b : [c] : : [d] , [e] , [f] , [g] , [h] , [i] , , j , [k] ;

**Command Name:** Schedule Performance Monitoring Report {EC1|T1|T3|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM5  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command instructs a Network Element to schedule or to remove the schedule of performance monitoring reports. This command results in the periodic reporting of performance monitoring data with the REPT PM {EC1 | T1 | T3 | VT1} message. The periodic performance monitoring reporting can be suspended with the INH-PMREPT- {EC1 | T1 | T3 | VT1} command. However, performance data continues to be accumulated and can be retrieved by using the RTRV-PM- {EC1 | T1 | T3 | VT1} command. The inhibit command retains the current schedule and reporting can be resumed with the ALW-PMREPT- {EC1 | T1 | T3 | VT1} command.

**Notes:** The maximum number of reports that can be scheduled for each type of signal is 64. The total number of reports scheduled in the system shall not exceed 128.

When a new report is scheduled, the number of output lines that are generated by that report each hour is added to the number of output lines generated by previously scheduled reports. If the total number of output lines exceeds 3600, the request to schedule the report is denied. When the number of previously scheduled reports or output lines is close to the maximum, it takes longer to schedule more reports (that is., up to 3 minutes to complete a SCHED-PMREPT- {EC1 | T1 | T3 | VT1} command.)

Reports cannot be scheduled less than 15 minutes apart. Reports can be scheduled on ports that are either in the driven or not driven state.

Only UIDs that have been given permission to execute commands within the performance monitoring category (UCFC of PM) receive scheduled autonomous performance monitoring report messages. These messages are REPT PM T1, REPT PM T3, REPT PM EC1, and REPT PM VT1.

Up to 240 STS-1 signals, 248 DS3 signals, 6944 DS1 signals, or 6880 VT1.5 signals can have scheduled reports within a single message. However, execution of input commands is delayed until all scheduled reports have been generated.

A denial message is generated if you try to retrieve scheduling information for a port that has not been provisioned.

If a single port is addressed and all parameters are specified, then the commands are **not** denied based upon the value of the MONLEV parameter (h).

If multiple ports and all parameters are specified, then only one interval can be specified. Otherwise, the commands are denied.

## SCHED-PMREPT-**{EC1IT1IT3IVT1}**

- **Additional Notes for T1** - In order to do far-end performance monitoring of an extended super frame (ESF) signal, the far-end equipment must be able to monitor its incoming signal and return a Performance Report Message in conformance with the requirements of ANSI T1.403-1989.

If no errors have been recorded above the Monitored Level on a port, nothing is output to the terminal at the scheduled report interval (not even a header).

If output in the form of a blank header is desired, schedule the report for a single parameter with a Monitored Level of 0-00. This forces output for all scheduled reports even though no data was recorded.

### Input Parameters

- a      **Target ID (TID):**  
      { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b      **Port (PORT):**  
      **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
      **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, DS1GRP-{1-32}-{1-31}, UNIT-{1-32} }  
      **(T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
      **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple ports can be specified.

**(T1IT3):** Multiple ports can be specified using restrictive multiple addressing.

Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs. Only those ports on provisioned circuit packs are reported. If all of the ports specified are on unprovisioned circuit packs, the command is denied. However, if a range of circuit packs is specified containing provisioned and unprovisioned ports, the DACS IV-2000 skips those ports that are not provisioned.

- c      **Correlation Tag (CTAG):**  
      { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## Input Format

---

SCHED-PMREPT-{EC1|T1|T3|VT1}: [a]:b:[c]::[d],[e],[f],[g],[h],[i],,j,[k];

## Input Parameters (Continued)

---

- d**      **Report Interval (INVL):**  
          { 15-MIN, {1-24}-HR, {1-7}-DAY }  
  
          **Default:** 1-HR  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the interval between performance monitoring reports.
- e**      **Report Starting Time (REPTSTART):**  
          { {0-23}-{0-59}, CURVAL }  
  
          **Default:** CURVAL (the current time)  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the starting time for the performance monitoring reporting schedule as HH-MM, where HH is the hour and MM is minutes.
- f**      **Number of Intervals (NUMINVL):**  
          { {0-96}, CONT }  
  
          **Default:** CONT  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the number of intervals over which performance monitoring is to be reported. If this parameter is **CONT**, the performance monitoring schedule remains in effect until the schedule is canceled. A value of 0 cancels all performance reports associated with the ports specified in the **PORT** parameter (b).
- g**      **Monitored Parameter (MONPARM):**  
          { <see below>, ALL }  
  
          **Default:** ALL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Monitored Parameter for which reporting is being scheduled. Valid values for this parameter are given in the **Monitored Parameters** appendix. **ALL** cannot be used when a range is chosen for the **PORT** parameter (b).

## SCHED-PMREPT-{EC1|T1|T3|VT1}

### Input Format

---

SCHED-PMREPT-{EC1|T1|T3|VT1}:[a]:b:[c]::[d],[e],[f],[g],[h],[i],,j,[k];

### Input Parameters (Continued)

---

**h Monitored Level (MONLEV):**  
**(EC1):** {0-4479000}-{UP,DN}  
**(T1):** {0-134217728}-{UP,DN}  
**(T3):** {0-811987200}-{UP,DN}  
**(VT1):** {0-1048575}-{UP,DN}

**Default:** 1-UP  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies a value other than the threshold for which performance information can be reported. This parameter can be used only when one Monitored Parameter is specified. Some parameters can have a maximum value less than that specified above. In the event that the specified monitored value exceeds the register maximum for the given parameter, the register is set to the parameter maximum. If the **MONPARM** parameter (g) is **ALL**, the default of **1-UP** must be used.

- **UP** - indicates that monitored parameters with values equal to or greater than the value specified are reported.
- **DN** - indicates that monitored parameters with values equal to or less than the value specified are reported.

**i Location (LOCN):**  
**(EC1|T1|T3):** { NEND, FEND }  
**(VT1):** { NEND }

**Default:** NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location being performance monitored.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.

## Input Format

---

SCHED-PMREPT-{EC1|T1|T3|VT1}:[a]:b:[c]::[d],[e],[f],[g],[h],[i],,j,[k];

## Input Parameters (Continued)

---

j           **Time Period (TMPER):**  
              **(EC1|VT1):** { SHORTINT, 15-MIN, 1-DAY }  
              **(T1|T3):** { SHORTINT, 15-MIN, 1-HR, 1-DAY }

**Default:** SHORTINT  
**Initial System Value:** 15-MIN  
**Addressing Rules:** None

Specifies accumulation time period for the specified Monitored Parameter. Units of time must be the same for the **INVL** parameter (d) and this parameter in order to receive **COMPLD** reports (instead of **PRTL**). If this parameter is **SHORTINT**, the system replaces **SHORTINT** with the provisioned short interval length (15-MIN or 1-HR).

**(T1):** If the value of this parameter does not agree with the provisioned value of Short Accumulation Period this command is denied. The Short Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

**(T3):** For this parameter, the options of 15-MIN and 1-HR must be the same as the DS3 Accumulation Period parameter in the **ED-NE** command. Otherwise, this command is denied with the error code **SNVP**. The option of 1-DAY (which is not an option of DS3 Accumulation Period in the **ED-NE** command) is valid because 24-hour data is available as a total of the last 96 15-minute intervals (PSET#1 [CB149]) or daily totals beginning at midnight (PSET#2 [TR820]).

k           **Time Offset (TMOFST):**  
              **(EC1|VT1):** {0-1}-{0-7}-{0, 15, 30, 45}  
              **(T1|T3):** {0-7}-{0-23}-{0, 15, 30, 45}

**Default:** 0-0-0  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the age of the data register(s). The format for this parameter is DAY-HR-MIN. The value of this parameter must be selected to correspond to a point backwards in time from the completion time of the most recently completed accumulation period. Further, this parameter must be related to the value specified for the **TMPER** parameter (j) such that the end of every time period coincides with the end of one of the reporting intervals (see the **INVL** parameter [d]). Usually the key value of this parameter is an integral multiple of the **INVL** parameter, meaning that the reports contain only completed accumulation periods. By convention however, a 0-0-0 value for this parameter, or any value less than that of the **TMPER** parameter, results in the selection of the current register (with partial data) or that same register just having completed its accumulation.

**(EC1|VT1):** If the value 1 is given for DAY, HR and MIN must both be 0.

## SCHED-PMREPT-{EC1|T1|T3|VT1}

### Input Format

---

SCHED-PMREPT-{EC1|T1|T3|VT1}:[a]:b:[c]::[d],[e],[f],[g],[h],[i],,j,[k];

### Input Parameters (Continued)

---

The following example illustrate the use of this parameter. Given:

**INVL** parameter (d) = 2-HR

**REPTM** parameter (e) = 12-05

**NUMINVL** parameter (f) = 3

**TMPER** parameter (j) = 15-MIN

**TMOFST** parameter (k) = 0-2-0

The first report is generated at 12:05. The accumulation period contains data for the period beginning two hours before the most recently completed accumulation period (12 noon). That is, the accumulation period is the period with a beginning time of 10 AM, covering 10 AM to 10:15 AM. Additional reports are generated every two hours. The third and final report is generated at 4:05 PM (since the **NUMINVL** parameter is 3).

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M   c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M   c DENY  
  1  
[   "<parsable text string>"]  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**l**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNC	The <b>MONPARM</b> parameter (g) is <b>ALL</b> and more than one Port specified or the <b>MONLEV</b> parameter (h) is not <b>1</b> or not <b>LEV-UP</b>
IDNC	The <b>TMPER</b> parameter (j) is <b>1-HR</b> and the <b>TMOFST</b> parameter (k) Day is <b>0</b> and Minute is not <b>0</b>
IDNC	The <b>TMPER</b> parameter (j) is <b>1-DAY</b> and the <b>TMOFST</b> parameter (k) Hour is not <b>0</b> or Minute is not <b>0</b>
IDNV	The <b>MONLEV</b> parameter (h) is greater than the maximum allowed
IDNV	Invalid address of report to be canceled
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
MRAS	Maximum reports already scheduled
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error
SARB	Adding this schedule generates more than 3600 lines of output in one hour
SARB	Output from reports is 3600 lines per hour

## SCHED-PMREPT-{EC1IT1IT3IVT1}

### Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SARB	The maximum number of reports has already been scheduled
SNDA	The <b>TMPER</b> parameter (j) is <b>1-HR</b> or <b>15-MIN</b> and the <b>TMOFST</b> parameter (k) Day is greater than 1 or the <b>TMOFST</b> parameter Day is 1 and Hour is not 0 or the <b>TMOFST</b> parameter Minute is not 0
SNPV	Performance monitoring type is <b>NONE</b>
SNPV	The <b>TMPER</b> parameter (j) is <b>15-MIN</b> or <b>1-HR</b> and frame Time Period is not set to <b>SHORT</b>
SNPV	The <b>MONPARM</b> parameter (g) is not in set of PSET#1 (or PSET#2) parameters
SNPV	The <b>TMPER</b> parameter (j) does not match the value set by DS3 Accumulation Period in the <b>ED-NE</b> command
SNPV	The <b>TMPER</b> parameter (j) is <b>15-MIN</b> or <b>1-HR</b> and frame Time Period does not agree
SNPV	The port or range of ports specified must have at least one provisioned port

## SET-ATTR-{EC1|T1|T2|T3|VT1}

### INPUT FORMAT

---

```
SET-ATTR-{EC1|VT1}: [a]:b:[c]::d,e,,,,,,,,;
SET-ATTR-T1: [a]:b:[c]::d,, [f],,,,,,,,,;
SET-ATTR-T2: [a]:b:[c]::d,,,,,,,,;
SET-ATTR-T3: [a]:b:[c]::d,e, [f],,,,,,,,,;
```

**Command Name:** Set Attribute {EC1|T1|T2|T3|VT1}  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

**(EC1|VT1):** This command modifies the attributes (alarm levels) of failure conditions associated with (EC-1|VT1.5) Ports within the system.

**(T1):** This command modifies the attributes (alarm levels) of failure conditions associated with DS1 Ports within the system and modifies the attributes (alarm levels) of failure conditions for the far-end DS1 facility associated with a MUX2 circuit pack provisioned to report these failures.

**(T2):** This command modifies the attributes (alarm levels) of DS2 failure conditions for the far-end DS3 facility associated with the MUX2 circuit packs provisioned to report these failures. This command edits far-end DS2s on a per-DS3 basis (that is, all DS2s are edited at the same time).

**(T3):** This command modifies the attributes (alarm levels) of failure conditions associated with DS3 Ports within the system and to modify the attributes (alarm levels) of failure conditions for the far-end DS3 facility associated with a MUX2 circuit pack provisioned to report these failures.

**Notes:** This command is not denied because the specified new value of a parameter is the same as the current value. This command completes with no action taken.

If an alarm condition is currently active on a port, the new Notification Code specified by this command does not take effect until this condition clears and affects only those conditions that occur after this command is given.

**SET-ATTR-{EC1|VT1}** is allowed on an SMUX circuit pack irrespective of the Active Signal Type on that port.

**SET-ATTR-T2** is denied with an error code of *SNPV* (status, not provisioned) unless the **RMTMUX-COMM** parameter in the **ED-T3** command is set to TR9.

When attempting to edit the T1 attributes of a MUX2 circuit pack, the circuit pack must be provisioned for SBIT or FEAC Remote Multiplex Communication or the command is denied.

## SET-ATTR-{EC1|T1|T2|T3|VT1}

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

- b       **Port (PORT):**  
          **(EC1):** EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          **(T1):** DS1 Port: { {1-32}-{1-31}-{1-28}, SWIF-{1-32}-{1-8}, UNIT-{1-32},  
                                  MUX-{1-32}-{1-31} }  
          **(T2|T3):** DS3 Port: { {1-32}-{1-31}, UNIT-{1-32} }  
          **(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple ports can be specified using restrictive multiple addressing. All of the ports specified must be on provisioned circuit packs, otherwise this command is denied.

Specifies the port that are used to change attributes of.

**(EC1):** Specifies the EC-1 Port, or all of the EC-1 Ports associated with the specified interface modules.

**(T1):** Specifies the DS1 Port. This command is denied (with the error code *SDNC*) when this parameter addresses a DS1 that is a tributary of a DS3 or a DS1 within a VT1.5. The value *MUX- {1-32} - {1-31}* is only valid when the *LOCN* parameter (f) is *FEND*.

**(T2):** Specifies the DS3 Port of the MUX2 circuit pack, or all of the DS3 Ports associated with the specified interface modules.

**(T3):** Specifies the DS3 Port, or all of the DS3 Ports associated with the specified interface modules.

**(VT1):** Specifies the VT1.5 Port (VT1.5 tributary within an STS-1).

## Input Format

---

```
SET-ATTR-{EC1|VT1}:[a]:b:[c]::d,e,,,,,,,,;
SET-ATTR-T1:[a]:b:[c]::d,,[f],,,,,,,,,;
SET-ATTR-T2:[a]:b:[c]::d,,,,,,,,;
SET-ATTR-T3:[a]:b:[c]::d,e,[f],,,,,,,,,;
```

## Input Parameters (Continued)

---

- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d       **Notification Code (NTFCNCDE):**  
          { MJ, MN, NA }

**Default:** None

**Initial System Value:**

**(EC1IVT1IT3):** MJ (for the FAULT condition group) or NA (for the AIS-YEL, FERF, AIS, or IDLE condition groups, or far-end T3 condition types)

**(T1IT2):** NA

**Addressing Rules:** None

**(T1):** Specifies the Notification Code to be used with the specified DS1 Port.

**(EC1IT3IVT1):** Specifies the Notification Code to be used on the specified EC-1/DS3/VT1.5 Port for the value given in the **CONDCOUP** parameter (e). For T3, if the **LOCN** parameter (f) is **FEND**, then this parameter is used to specify the Notification Code to be used with the specified DS3 Port for the far-end condition types.

- **MJ** - indicates a Major Alarm.
- **MN** - indicates Minor Alarm.
- **NA** - indicates No Alarm.

## SET-ATTR-{EC1|T1|T2|T3|VT1}

### Input Format

---

```
SET-ATTR-{EC1|VT1}: [a]:b:[c]::d,e,,,,,,,,;
SET-ATTR-T1: [a]:b:[c]::d,, [f],,,,,,,,,;
SET-ATTR-T2: [a]:b:[c]::d,,,,,,,,;
SET-ATTR-T3: [a]:b:[c]::d,e, [f],,,,,,,,,;
```

### Input Parameters (Continued)

---

- e      **Condition Group (CONDGROUP):**  
      **(EC1):** { FAULT, AIS-YEL, FERF, ALL }  
      **(VT1):** { FAULT, AIS-YEL, ALL }  
      **(T1|T2):** { <not used> }  
      **(T3):** { FAULT, AIS, IDLE, ALL }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type or group of conditions for which the notification code is being changed.

**(T3):** When the **LOCN** parameter (f) is **FEND**, the only valid value for this parameter is **ALL** (indicating all of the far-end condition types, INC, OOF, AIS, IDLE, YEL, and SBITFAIL). Specifying a condition group or **ALL** when the **LOCN** parameter (f) is **NEND**, sets the associated near-end condition types. The near-end condition groups are:

- **FAULT** - indicates the condition types:
  - **(EC1)** - Loss of Signal (LOS), Line Soft BER Threshold (T-BERL), Loss of Frame (LOF), Loss of Pointer (LOP), and Signal Label Match Failure (SLMF).
  - **(VT1)** - LOP.
  - **(DS3)** - Bit Error Rate Threshold Exceeded (T-BER), LOS, OOF, and DS3FRMTMISMATCH.
- **AIS-YEL** - indicates the condition types Line Alarm Indication Signal (AISL) [for EC1 only], Path Alarm Indication Signal (AISP), and Yellow Signal (YEL).
- **FERF** - indicates the condition type Far-End Receive Failure (FERF).
- **AIS** - indicates the condition types Alarm Indication Signal (AIS) [for MUX1 circuit packs only], Alarm Indication Signal, Framed (AISFRAMED) [for MUX2 circuit packs only], and Alarm Indication Signal, Unframed (AISUNFRAMED) [for MUX2 circuit packs only].
- **IDLE** - indicates the condition types Idle Signal Detected (IDLE) and All DS2s in a DS3 Signal are Out of Frame (ALLDS2SOOF).

## Input Format

---

```
SET-ATTR-{EC1|VT1}: [a]:b:[c]::d,e,,,,,,,,;
SET-ATTR-T1: [a]:b:[c]::d,, [f],,,,,,,,,;
SET-ATTR-T2: [a]:b:[c]::d,,,,,,,,;
SET-ATTR-T3: [a]:b:[c]::d,e, [f],,,,,,,,,;
```

## Input Parameters (Continued)

---

f        **Location (LOCN):**  
          **(T1IT3):** { NEND, FEND }  
          **(EC1IT2IVT1):** { <not used> }

**Default:** NEND  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the location where the condition is associated with.

**(T1):** This parameter is used to modify the attributes of both near- and far-end facilities. For near-end, the command is denied when this parameter addresses a DS1 tributary of a DS3. For far-end, this command sets the attributes of all DS1s within the far-end DS3 (similar to **SET-ATTR-T3** command which sets the attributes of the DS3 or all DS1 tributaries within the DS3). The value **FEND** is only valid when the **PORT** parameter (b) is **MUX-(1-32)-(1-31)**.

**(T3):** When this parameter is set to **FEND**, the only valid value for the **CONDRGROUP** parameter (e) is **ALL**. This command is denied when **FEND** is selected and the DS3 Port is not a MUX2 circuit pack provisioned to support far-end condition types (that is, the MUX2 circuit pack is not provisioned for remote multiplexer communications).

- **NEND** - indicates the conditions associated with near-end equipment in the DACS IV-2000 database are modified.
- **FEND** - indicates the active conditions associated with far-end equipment in the DACS IV-2000 database are modified.

## SET-ATTR-{EC1IT1IT2IT3IVT1}

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
g
[ "<parsable text string>" ]
;
```

#### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Equipment not recognized
ENRE	Interface module is not provisioned
IDNV	Any of the input parameters is invalid
IDNV	DS1 Port is MUX- {1-32} - {1-31} but the LOCN parameter (f) is NEND
IDNV	DS1 Port is not MUX- {1-32} - {1-31} but the LOCN parameter (f) is FEND
IDRG	Port value is out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SDNC	Any of the ports that are addressed are not provisioned as EC-1
SNAS	The port/circuit pack is not assigned
SNIS	Any of the ports that are addressed are not in-service
SNPV	The DS1 Port addresses a DS1 Port that is a tributary of a DS3
SNPV	The interface module/circuit pack is not provisioned

Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SNPV	Any of the ports that are addressed are not provisioned
SNPV	The provisioned circuit pack Code Name for this DS3 Port (or any of the DS3 Port if a range is specified) is not <b>AKM68</b> (MUX2) and the specification for the <b>CONDGROUP</b> parameter (e) includes the <b>IDLE</b> group of condition types
SNPV	PMGR circuit pack is not in valid state
SNPV	The remote multiplexer type is not set to <b>TR9</b>
SNVS	MC is not in service
SROF	One port failed in an interface module wide provisioning

# SET-ATTR-EQPT

## INPUT FORMAT

---

SET-ATTR-EQPT: [a]:b:[c]::[d],,,,,,;

**Command Name:** Set Attribute Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command modifies the attributes (alarm levels) of failure conditions for the far-end equipment associated with a MUX2 circuit pack provisioned to report these failures.

**Notes:** This command is not denied if the specified new value of a parameter is the same as the current value. This command completes with no action taken.

If an alarm condition is currently active on the equipment specified in the `LOC` parameter (b), the new Notification Code specified by this command does not take effect until this condition clears and affects only those conditions that occur after this command is given.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Equipment Location (LOC):**  
          { MUX-{1-32}-{1-31}, UNIT-{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple MUX2 circuit packs or units can be specified using restrictive multiple addressing. All of the packs specified must be on circuit packs provisioned for remote multiplexer communication, otherwise the command will be denied.

Specifies the near-end equipment location for which the attribute (alarm level) for the far-end is modified. When `UNIT` is specified for this parameter, all MUX2 circuit packs associated with `UNIT` are addressed. Otherwise, an individual MUX2 circuit pack is addressed.

### Input Format

---

SET-ATTR-EQPT: [a]:b:[c]::[d],,,,,,,,,;

### Input Parameters (Continued)

---

- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d        **Notification Code (NTFCNCDE):**  
          { MJ, MN, NA, CURVAL }
- Default:** CURVAL  
          **Initial System Value:** MJ  
          **Addressing Rules:** None

Specifies the notification code for conditions associated with the LOC parameter (b).

- **MJ** - indicates Major Alarm.
- **MN** - indicates Minor Alarm.
- **NA** - indicates No Alarm.

## SET-ATTR-EQPT

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>" ]  
;
```

#### Output Parameters

---

**c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNAS	All specified circuit packs are not assigned
SNPV	Wrong interface module type or circuit pack type
SNVS	MC is not in service

## SET-PMMODE-{EC1|VT1}

### INPUT FORMAT

---

SET-PMMODE- {EC1|VT1} : [a] : b : [c] :: [d], [e], [f] ;

**Command Name:** Set Performance Monitoring Mode {EC1|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command instructs a network element to set its performance monitoring mode to either full-time monitoring or not-monitored.

**Notes:** The SET-PMMODE-EC1 command is allowed irrespective of the Active Signal Type of the Port.

The SET-PMMODE-VT1 command is denied with the error code IDNV if the Active Signal Type of the Port is EC1.

### Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **Port (PORT):**  
          (EC1): EC-1 Port: { {1-32}-{1-15}, UNIT-{1-32} }  
          (VT1): VT1.5 Port: { {1-32}-{1-15}-{1-28}, UNIT-{1-32}, VT1GRP-{1-32}-{1-15} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple ports can be specified. All of the ports specified must be on provisioned circuit packs, otherwise this command is denied.
- Specifies the port, or all of the ports associated with the specified interface modules, groups, or circuit packs.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.

## SET-PMMODE-{EC1|VT1}

### Input Format

---

SET-PMMODE-{EC1|VT1}: [a]:b: [c]:: [d], [e], [f];

### Input Parameters (Continued)

---

d        **Location (LOCN):**  
          (EC1): { NEND, FEND, ALL }  
          (VT1): { NEND }

**Default:**  
          (EC1): ALL  
          (VT1): NEND  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the location for which performance monitoring is enabled or disabled.

- **NEND** - indicates a near-end location.
- **FEND** - indicates a far-end location.

e        **Performance Monitoring Mode Type (MTYPE):**  
          (EC1): { S, L, P, ALL }  
          (VT1): { P }

**Default:** ALL (for STS-1 signals) or P (for VT1.5 signals)  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the particular monitored layer. Multiple layers can be specified using single ampersands (for example, *s&l*).

- **L** - indicates Line performance monitoring mode.
- **S** - indicates Section performance monitoring mode.
- **P** - indicates Path performance monitoring mode.

f        **Performance Monitoring State (PMSTATE):**  
          { ON, OFF }

**Default:** ON  
          **Initial System Value:** OFF  
          **Addressing Rules:** None

Specifies the desired performance monitoring state to be set for the specified value in the **MTYPE** parameter (e).

- **ON** - specifies that performance monitoring parameters are monitored, accumulated, and reported on request.
- **OFF** - specifies that there are no Line, Section, or Path performance monitoring until you turn them on manually.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
g  
[ "<parsable text string>"]  
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Active Signal Type of port is EC1 (for <b>ALW-MSG-VT1</b> )
IDNV	The <b>MTYPE</b> parameter (e) is not valid for the port specified
IITA	Invalid target identifier
PICC	User does not have the proper privilege code to execute this command
PLNA	User is not logged on
SNPV	The port or range of ports specified must have at least one provisioned port

# SET-SCANTH-NE

## INPUT FORMAT

---

SET-SCANTH-NE: [a] :: [b] : c, d, [e], f, [g];

**Command Name:** Set Scan Threshold Network Element  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command sets threshold values for the scan DS1 performance parameters.

**Notes:** Scanning of DS1s related to SONET interfaces are not supported.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

c        **Monitored Parameter (MONPARM):**  
          { <see below> }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the particular Monitored Parameter for which threshold level is being set. A list of Monitored Parameters along with their definitions is given in the **Monitored Parameters** appendix.

## Input Format

---

SET-SCANTH-NE: [a]::[b]:c,d,[e],f,[g];

## Input Parameters (Continued)

---

d      **Threshold Level (THLEV):**  
         { 0-134217728 }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the desired threshold level set for the **MONPARM** parameter (c). Setting the Threshold Level of a Monitored Parameter to zero causes the parameter to be ignored and not monitored; consequently, the parameter is not used to produce Threshold Crossing Alerts (TCAs). TCAs are reported by the **REPT EVT T1** message.

The **Monitored Parameters** appendix gives the default threshold values of the specified Monitored Parameter. Whether provisioned for 15-MIN or 1-HR, the default values are the same.

e      **Location (LOCN):**  
         { NEND, FEND, ALL }

**Default:** ALL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location for which performance data is requested.

- **NEND** - indicates a near-end location
- **FEND** - indicates a far-end location.

f      **Time Period (TMPER):**  
         { 15-MIN, 1-HR, 1-DAY }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the accumulation time period for the specified Monitor Parameter. If the value chosen is 15-MIN or 1-HR and the value entered for this parameter does not agree with the provisioned value of Short Accumulation Period, this command is denied. The Short Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

g      **DS1 Signal Format (FMT):**  
         { ESF, SF }

**Default:** ESF  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the DS1 signal type.

- **ESF** - indicates extended super frame.
- **SF** - indicates super frame.

# SET-SCANTH-NE

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M b COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M b DENY  
h  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

h       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	ALL entered for parameter
IDNV	Accumulation interval entered is different from database
IDNV	Monitored parameter is not scan performance monitoring parameter
IDNV	Invalid combination of location and framing format entered
IDNV	Invalid combination of location and parameter entered
IDNV	Threshold level entered is greater than maximum allowed for the parameter
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## SET-SID

### INPUT FORMAT

---

**SET-SID:** [a] :: [b] :: [c] ;

**Command Name:** Set Source Id  
**Command Category:** Administration  
**User Privilege Code (UCFC/UCAL):** S3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command sets the Source ID (SID) for a network element (NE).

**Notes:** This command modifies the Target ID (TID) of the DACS IV-2000.

This command is allowed when the MC is in the IS or OOS-MCOND state. If the MC is IS, this command updates the TIDs of the WKG memory and all in-service PRIs. If the MC is OOS-MCOND, this command updates the TID of the WKG memory only.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

c       **Source ID (SID):**  
          { <1-18 TID LEGAL CHARACTERS>, CURVAL }  
  
          **Default:** CURVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Identification of the Source Network Element.

## SET-SID

### RESPONSES

---

#### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  b COMPLD
;
```

#### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  b DENY
   d
[   "<parsable text string>"
;]
```

#### Output Parameters

---

**b**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**d**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in

## SET-SYNCN

### INPUT FORMAT

---

SET-SYNCN: [a]:b:[c]::d;

**Command Name:** Set Synchronization  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command sets the synchronization mode for the synchronization equipment within the DACS IV-2000.

**Notes:** This command is denied if the specified new value of the **SMODE** parameter (d) is the same as the current value with the exception, if the Synchronizer (SYNCN) is in the hold-over (HLDOVR) mode because of the condition **ALLREFFAIL**, then issuing this command setting SYNCN to the **HLDOVR** mode completes.

The **SET-SYNCN::SYNCN:::NORM** command is denied if the SYNCN was not previously switched to **HLDOVR** mode.

The **SET-SYNCN::SYNCN:::FST** command switches the SYNCN to fast-start (FST) mode, however the system does not actually switch over to this mode until a **REPT SW** message is generated for that switch.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { SYNCN }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple addressing can not be used.

Specifies the Synchronization Equipment for which the synchronization mode is set.

# SET-SYNCN

## Input Format

---

SET-SYNCN: [a] :b: [c] : :d;

## Input Parameters (Continued)

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Synchronization Mode (SMODE):**  
          { NORM, HLDOVR, FST }

**Default:** None

**Initial System Value:** FRNG

**Addressing Rules:** None

Specifies the desired synchronization mode which is used.

- **NORM** - indicates Phase-Locked Mode.
- **HLDOVR** - indicates Holdover Mode.
- **FST** - indicates Fast-Start Mode.
- **FRNG** - indicates Free-Running Mode.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

**c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**e**      **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	Synchronizer mode is <b>HLDOVR</b> because DS1TX circuit pack is in OOS state and you attempted to set to <b>NORM</b>
SNVS	Synchronizer mode is <b>HLDOVR</b> because of reference failure and you attempted to set to <b>NORM</b>
SNVS	Synchronizer mode is already set to <b>HLDOVR</b>
SNVS	Synchronizer mode is <b>HLDOVR</b> because of DS1TX circuit pack in OOS state and you attempted to set to <b>HLDOVR</b>
SNVS	Synchronizer mode is <b>HLDOVR</b> and you attempted to set to <b>FST</b>
SNVS	Synchronizer mode is <b>FST</b> and you attempted to set to <b>NORM</b>
SASW	Synchronizer mode is already set to <b>NORM</b>
SASW	Synchronizer mode is already set to <b>FST</b>

# SET-TH-{EC1|T1|T3|VT1}

## INPUT FORMAT

---

SET-TH- {EC1|T1|T3|VT1}: [a]:b:[c]::d,e,[f],,g;

**Command Name:** Set Threshold {EC1|T1|T3|VT1}  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

## Purpose

---

This command sets threshold values for the specified monitored parameters.

**Notes:** The **SET-TH-EC1** command is allowed irrespective of the Active Signal Type of the specified port.

The **SET-TH-T1** command is denied with the error code IDNV if the Active Signal Type of the specified port is not T1.

The **SET-TH-VT1** command is denied with the error code IDNV if the Active Signal Type of the specified port is EC1.

**WARNING:** Proactive maintenance thresholds are disabled if line performance monitoring thresholds are not chosen below the soft-failure threshold.

- **Additional Notes for T1** - The Short Accumulation Period is set by the **ED-NE** command. The provisioned value can be retrieved by the **RTRV-NE** command.

In order to do far-end performance monitoring of an extended super frame (ESF) signal, the far-end equipment must be able to monitor its incoming signal and return a Performance Report Message in conformance with the requirements of ANSI T1.403-1989.

After setting the threshold values for the DS1 Performance Monitoring parameters on a DS1 Port, any editing of the DS1 Signal Format (**ESF**, **SF**, or **UNFR**) of that port causes the set thresholds to revert back to their default values.

To set path performance monitoring system-wide default threshold values for SF formatted DS1 signals, the **PORT** parameter (b) must be set to **SFPATH** and each path related monitored parameter must be set to an appropriate value. Only one parameter default can be set at a time. The value selected for the monitored parameter must be used as the system default value for SF formatted DS1 signals.

To set path performance monitoring system-wide default threshold values for ESF formatted DS1 signals, the **PORT** parameter (b) must be set to **ESFPATH** and each path related monitored parameter must be set to an appropriate value. Only one parameter default can be set at a time. The value selected for the monitored parameter must be used as the system default value for ESF formatted DS1 signals.



## SET-TH-{EC1|T1|T3|VT1}

### Input Format

---

SET-TH- {EC1|T1|T3|VT1}: [a]:b: [c]::d,e, [f],,g;

### Input Parameters (Continued)

---

d        **Monitored Parameter (MONPARM):**  
          { <see below> }

**Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the particular monitored parameter for which threshold level is being set. A list of monitored parameters along with their definitions is given in the **Monitored Parameters** appendix.

**(T1):** If the value of the **PORT** parameter (b) is **SFPATH**, **ESFPATH**, or **LINE**, the value set for this parameter must be used as the system-wide default threshold.

e        **Threshold Level (THLEV):**

**(EC1):** { 0-4479000 }  
          **(T1):** { 0-134217728 }  
          **(T3):** { 0-811987200 }  
          **(VT1):** { 0-1048575 }

**Default:** None  
          **Initial System Value:**  
          **(EC1|VT1):** <See the Monitored Parameters Appendix>  
          **(T1|T3):** None  
          **Addressing Rules:** None

Specifies the desired threshold level to be set for Monitored Parameter specified in the **MONPARM** parameter (d). Some parameters can have a maximum value less than that specified above. In the event that the specified monitored value exceeds the register maximum for the given parameter, the register is set to the parameter maximum.

**(T1|T3):** Setting the Threshold Level of a Monitored Parameter to 0 causes the parameter to be ignored and not monitored. Consequently, the parameter is not used to produce Threshold Crossing Alerts (TCAs), reported by the **REPT EVT T1**, or recorded for performance monitoring.

**(T1):** If the value of the **PORT** parameter (b) is **SFPATH**, **ESFPATH**, or **LINE**, the value set for this parameter must be used as the system-wide default threshold.

**(T3):** For PSET#1 (CB149) data the **1-DAY** threshold is for the 96 15-minute rolling totals.

## Input Format

---

SET-TH- {EC1|T1|T3|VT1}: [a]:b: [c]::d,e,[f],,g;

## Input Parameters (Continued)

---

- f        **Location (LOCN):**  
          **(EC1IT1IT3):** { NEND, FEND, ALL }  
          **(VT1):** { NEND }
- Default:**  
                                  **(EC1IT3):** ALL  
                                  **(VT1):** NEND  
                                  **(T1):** ALL, which indicates both NEND and FEND for DS1 Ports provisioned as an ESF format signal and NEND for DS1 Ports provisioned as an SF format signal.  
                                  **Initial System Value:** None  
                                  **Addressing Rules:** None
- Specifies the location where the threshold must be set.
- **NEND** - indicates a near-end location.
  - **FEND** - indicates a far-end location.
- g        **Time Period (TMPER):**  
          **(EC1IVT1):** { 15-MIN, 1-DAY }  
          **(T1IT3):** { 15-MIN, 1-HR, 1-DAY }
- Default:** None  
                                  **Initial System Value:** None  
                                  **Addressing Rules:** None
- Specifies the accumulation time period for the performance monitoring information.
- (T1):** If 15-MIN or 1-HR is the value entered for this parameter, the value must agree with the provisioned value of Short Accumulation Period (**ED-NE** command, parameter s). Otherwise, this command is denied.
- (T3):** If 15-MIN or 1-HR is the value entered for this parameter, the value must agree with the provisioned value of DS3 Accumulation Period (**ED-NE** command, parameter u). Otherwise, this command is denied.

# SET-TH-{EC1IT1T3IVT1}

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
    h
[   "<parsable text string>"]
;
```

### Output Parameters

---

**c**      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**h**      **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENRE	Interface module not recognized
IDRG	Input data out of range
IDNV	Active Signal Type of port is EC1 for <b>SET-TH-VT1</b>
IDNV	Active Signal Type of port is not T1 for <b>SET-TH-T1</b>
IDNV	Time Period different from database
IDNV	Parameter not valid for performance monitoring type
IDNV	Line parameter specified for path primitive
IDNV	Path parameter specified for line primitive
IDNV	Location not valid for signal format
IDNV	The monitored parameter is not valid for the specified port(s) or for the specified location
IDNV	<b>ALL</b> entered for parameter
IDNV	Accumulation interval entered is different from database
IDNV	MUX circuit pack type is not valid
IDNV	Monitored Parameter is not a DS1 performance monitoring parameter
IDNV	Threshold level entered is greater than maximum allowed for the parameter

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Invalid combination of location and parameter
IDRG	Input data out of range
IDRG	Port ID out of range
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNIS	UC is not in service
SNIS	Circuit pack is under protection and protection UC is OOS
SNPV	The port or range of ports specified must have at least one provisioned port
SNPV	Circuit pack is not provisioned
SNPV	MUX circuit pack is not provisioned
SNPV	All MUX circuit packs in the given range are not provisioned
SNPV	Port is being camped-on and camp-on PMGR circuit pack's UC is OOS
SNPV	Port is being camped-on and camp-on PMGR circuit pack is present but bad or failed
SNPV	No Ports in the range are provisioned
SNVS	Line parameter change requested for DS1 Ports in a DS3
SNVS	Circuit pack hardware ID is <b>INIT</b> or PMGR circuit pack
SNVS	Circuit pack is present and bad or failed
SNVS	Invalid combination of location and framing format entered or parameter entered
SNVS	MUX or MUXP circuit pack is bad
SNVS	MC is not in service

# SET-TH-NE

## INPUT FORMAT

---

SET-TH-NE: [a]::[b]::c,d,[e],[f],,,,,,;

**Command Name:** Set Threshold Network Element  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command sets the Coding Violation (CV) threshold, which triggers the Severely Errored Second (SES) for the STS-1, and VT1.5 signals. These threshold values are used on a system-wide basis.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

c        **Signal Type (SIGTYPE):**  
          { VT1, EC1 }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Signal Type for which the threshold level is being set.

- **VT1** - indicates VT1.5 signals.
- **EC1** - indicates STS-1 signals.

**Input Format**

---

SET-TH-NE: [a]::[b]::c,d,[e],[f],,,,,,,,,;

**Input Parameters (Continued)**

---

d **Monitored Parameter (MONPARM):**  
 { <see below> }

**Default:** SESP for VT1.5 signal type; None otherwise  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the particular monitored SES parameter for which a CV threshold level is being set. For STS-1 signals, the allowable parameters are: **SESL** and **SESP**. For VT1.5 signals, the allowable parameter is: **SESP**. The definition of the parameters is given in the **Monitored Parameters** appendix.

e **Threshold Level (THLEV):**  
 { <see below> }

**Default:** 12 (STS-1/Line), 9 (STS-1/Path), or 4 (VT1.5/Path)  
**Initial System Value:** 12 (STS-1/Line), 9 (STS-1/Path), or 4 (VT1.5/Path)  
**Addressing Rules:** None

Specifies the desired threshold level to be set for Monitored Parameter specified in the **MONPARM** parameter (d).

(FE)SES (FE)CV Threshold Values

Signal/Layer	Default	Range
STS-1/Line	12	1-55
STS-1/Path	9	1-55
VT1.5/Path	4	1-20

f **Location (LOCN):**  
**(EC1IT1IT3):** { NEND, FEND, ALL }  
**(VT1):** { NEND }

**Default:** (EC1IT1IT3): ALL (VT1): NEND  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the location from which the threshold must be set.

- **NEND** - indicates a near-end location
- **FEND** - indicates a far-end location.
- **ALL**- indicates both near-end and far-end locations.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
   g
[   "<parsable text string>"]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**g**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is not in service

## STA-SCANPM-T1

### INPUT FORMAT

---

STA-SCANPM-T1: [a]:b:[c];

**Command Name:** Start Scan Performance Monitoring T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

#### Purpose

---

This command starts scanning of DS1 performance monitoring of addressed circuit packs.

**Notes:** Editing the DS1 signal format and F-End notification (through **ED-T1**) is denied when the addressed DS1 Port is being scan monitored.

The DS1 Ports to be scanned must have their signal format set to SF (super frame) or ESF (extended super frame) in order for performance monitoring data to be collected/monitored.

#### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Scanned Equipment Location (LOC):**  
          { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs can be specified using restrictive multiple addressing.

Specifies the circuit packs whose DS1 ports are scanned.

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

# STA-SCANPM-T1

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
d  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDNV	Equipment identifier not valid in this context
IDNV	No PMGR circuit pack provisioned within the SWIO circuit pack pair
IDNV	PMGR circuit pack was specified
IDNV	SWIF2 circuit pack was specified
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error, command aborted
SAOP	Scan already activated on DS1 interface group
SNIS	UC is not in service
SNPV	Interface module/PMGR circuit pack is not provisioned
SNVS	MC is not in service
SNVS	Scan PMGR circuit pack is not in valid state

## STP-SCANPM-T1

### INPUT FORMAT

---

STP-SCANPM-T1: [a]:b:[c];

**Command Name:** Stop Scan Performance Monitoring T1  
**Command Category:** Provisioning  
**User Privilege Code (UCFC/UCAL):** PM3  
**Abortable:** No  
**REPT DBCHG Message:** Yes

#### Purpose

---

This command stops scanning of DS1 performance monitoring of addressed circuit packs.

**Notes:** The STP-SCANPM-T1 command can be executed even while the UC is out of service.

#### Input Parameters

---

- a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Target ID of the DACS IV-2000.
- b        **Scanned Equipment Location (LOC):**  
          { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple circuit packs can be specified using  
          restrictive multiple addressing.  
  
          Specifies the circuit packs whose ports are inhibited from being scanned for performance monitoring.
- c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None  
  
          Specifies the Correlation Tag used to associate an input command with its output response.

# STP-SCANPM-T1

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
d
[ "<parsable text string>" ]
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

d        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
IDNV	Equipment identifier not valid in this context
IDNV	No PMGR circuit pack assigned for the SWIO circuit pack pair
IDNV	A PMGR circuit pack was specified
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Software error, command aborted
SARL	No scan activated on DS1 interface group
SNPV	Interface module/PMGR circuit pack is not provisioned
SNVS	MC is not in service

## SW-DX-EQPT

### INPUT FORMAT

---

SW-DX-EQPT: [a]:b:[c]::[d];

**Command Name:** Switch To Duplex Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually switches duplex equipment between the ACT (active) and STBY (standby) states.

**WARNING:** Switching CLKGN circuit packs cause random timing hits on DS1 signals in the DACS IV-2000. **Use this command carefully.**

**Notes:** Manual switching of SYNC circuit packs (CLKGN circuit packs) implies a switching of CLKGN circuit packs (SYNC circuit packs) provided that the other timing side (SYNC and CLKGN) is in service. Switching between timing references is limited to the timing references accessible to the currently active SYNC side. Timing reference (SYNPRI, SYNSEC) switching is revertive, while SYNC or CLKGN switching is non-revertive.

Executing this command can result in the REPT ALM EQPT message indicating failures on the SWIO circuit packs. These alarms clear in a matter of seconds and are considered transient.

### Input Parameters

---

a **Target ID (TID):**  
{ <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b **Equipment Location (LOC):**  
{ CLKGN-{0,1}, SYNC-{0,1}, SYNPRI-{0,1}, SYNSEC-{0,1} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the type and location of the current standby circuit pack(s). If this command is successful, the standby circuit pack(s) become the active circuit pack(s) and the active circuit pack(s) become the standby circuit pack(s).

## SW-DX-EQPT

### Input Format

---

SW-DX-EQPT: [a]:b:[c]::[d];

### Input Parameters (Continued)

---

- c      **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

- d      **Switch Mode (SWMODE):**  
         { NORM, FRCD }

**Default:** NORM  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the mode for switching. If both the active and standby circuit packs are bad (not able to perform full service functions), a switch is allowed only if the **FRCD** flag is given. This command is denied if the active circuit pack(s) is good and the standby circuit pack(s) is bad, except if the only problem with the new circuit pack(s) is that it cannot be synchronized with the working circuit pack(s) and the clock signal generated is good. The **FRCD** option is not allowed for **SYNCPRI** and **SYNCSEC** Equipment Locations.

- **NORM** - indicates to switch to the standby circuit pack(s), only if the standby circuit pack(s) are *good*.
- **FRCD** - indicates to switch to the standby circuit pack(s), regardless of the state (*good* or *bad*) of the standby circuit pack(s).

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS  
M c COMPLD  
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS  
M c DENY  
e  
[ "<parsable text string>" ]  
;
```

### Output Parameters

---

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENRE	Specified CLKGN circuit pack does not exist
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SASW	Specified timing reference already active
SAWS	Specified CLKGN circuit pack is already in working state
SNIS	Both CLKGN circuit packs are bad
SNOS	FRCD flag specified and specified CLKGN circuit pack is not bad
SNVS	Diagnostic run on CLKGN circuit pack failed
SNVS	Associated DS1TX circuit pack not active
SOSF	Specified CLKGN circuit pack does not exist
SROF	Hardware ID of specified is invalid

# SW-TOPROTN-EQPT

## INPUT FORMAT

---

SW-TOPROTN-EQPT: [a] :b: [c] :: [d] , , , , , , ;

**Command Name:** Switch To Protection Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually switches from a working circuit pack(s) to a protection circuit pack(s). That is, removing the working circuit pack(s) from service, and inhibiting automatic switching back to the working circuit pack(s). If the circuit pack is in the OOS-MTCE (protected) state, this command is denied.

**Notes:** The warning message, that the LED on the specified circuit pack is illuminated to indicate protection, is only issued when the **MANPROT** parameter (w) of the **ED-NE** command is set to **CKTLED-ON** and the circuit pack is switched to protection.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b        **Equipment Location (LOC):**  
          { SWCS-{1-31}, SWIO-{1-32}, MUX-{1-32}-{1-31}, SWIF-{1-32}-{1-8},  
          SMUX-{1-32}-{1-15} }  
  
          **Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the type and location of the working circuit pack(s). When a SWIF circuit pack is switched, the two associated DS1IF circuit packs are switched with it.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }  
  
          **Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

**Input Format**

---

SW-TOPROTN-EQPT: [a]:b:[c]::[d],,,,,,;

**Input Parameters (Continued)**

---

d        **Switch Mode (SWMODE):**  
          { NORM, FRCD }

**Default:** NORM

**Initial System Value:** None

**Addressing Rules:** None

Specifies the mode for switching.

- **NORM** - indicates to switch to the protection circuit pack(s), only if the protection circuit pack(s) are *good*.
- **FRCD** - indicates to switch to the protection circuit pack(s)

# SW-TOPROTN-EQPT

## RESPONSES

---

When a command is entered through the General Telemetry Processor (GTP), the output CTAG parameter has the string TABS in it and the output Switch Direction parameter is NORM. For example:

```
SW TOPROTN EQPT::MUX-10-1:TABS:NORM COMPLD
```

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M   c COMPLD
{   /* THE ALARM LED WILL REMAIN LIT ON ALL PROTECTED CIRCUIT PACKS */
;   ;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M   c DENY
e
{   "<parsable text string>"
;   ;
```

### Output Parameters

---

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e       **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
ENEQ	Circuit pack is not present
IDNV	Input data is not valid
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAPS	Circuit pack is already protected
SARB	Protection circuit pack is busy
SNIS	Interface module's UC is not in service

**Error Code Listing (Continued)**

---

<b>ERRCDE</b>	<b>Condition</b>
SNIS	Protection CLKDR associated with SWIO is bad
SNPV	Circuit pack is not provisioned
SNVS	Protection bus violation
SPFA	Status, protected entity failed
SROF	Circuit pack is bad

# SW-TOWKG-EQPT

## INPUT FORMAT

---

SW-TOWKG-EQPT: [a]:b:[c]::[d],,,,,;

**Command Name:** Switch To Working Equipment  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M4  
**Abortable:** No  
**REPT DBCHG Message:** Yes

### Purpose

---

This command manually switches from a protection circuit pack(s) to a working circuit pack(s). That is, restoring the working circuit pack(s) to service, and inhibiting automatic switching back to the protection circuit pack(s). If the circuit pack(s) is active (not protected), this command is denied.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { SWCS-{1-31}, SWIO-{1-32}, MUX-{1-32}-{1-31}, SWIF-{1-32}-{1-8},  
          SMUX-{1-32}-{1-15} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the type and location of the working circuit pack(s). When a SWIF circuit pack is switched, the two associated DS1IF circuit packs are switched with it. If any of these three working circuit packs is *bad*, then the value **FRCD** must be used in the **SWMODE** parameter (d). When a SWIO circuit pack is switched and clocks are used from different CLKDR circuit packs, **FRCD** (**SWMODE** parameter) applies either to the SWIO circuit pack or one of its associated CLKDR circuit packs.

c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

### Input Format

---

SW-TOWKG-EQPT: [a] :b : [c] :: [d] , , , , , , ;

### Input Parameters (Continued)

---

d        **Switch Mode (SWMODE):**  
          { NORM, FRCD }

**Default:** NORM

**Initial System Value:** None

**Addressing Rules:** None

Specifies the mode for switching. If the working circuit pack(s) is *bad* (unable to provide full service functions), the mode must be **FRCD** or this command is denied.

- **NORM** - indicates to switch to the working circuit pack(s), only if the working circuit pack(s) are *good*.
- **FRCD** - indicates to switch to the working circuit pack(s), regardless of the state (*good* or *bad*) of the working circuit pack(s).

# SW-TOWKG-EQPT

## RESPONSES

---

When a command is entered through the General Telemetry Processor (GTP), the output CTAG parameter has the string TABS in it and the output Switch Direction parameter is NORM. For example:

```
SW TOWKG EQPT::MUX-10-1:TABS:NORM COMPLD
```

### Normal Response

---

```
      TID YY-MM-DD HH:MM:SS  
M    c COMPLD  
;
```

### Error Response

---

```
      TID YY-MM-DD HH:MM:SS  
M    c DENY  
e  
[   "<parsable text string>" ]  
;
```

### Output Parameters

---

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

e        **Error Code (ERRCDE):**  
         { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

<b>ERRCDE</b>	<b>Condition</b>
ENEQ	Circuit pack is not present
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SAWS	Circuit pack is in working state
SNIS	Interface module's UC is not in service
SNPV	Circuit pack is not provisioned
SROF	Blank circuit pack in slot
SROF	Bad circuit pack type
SWFA	Circuit pack is bad and switch mode is not forced

## TEST-CABLE

### INPUT FORMAT

---

**TEST-CABLE:** [a]:b:[c];

**Command Name:** Test Cable  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command tests the N-rate data cables that connect the SWIO circuit packs in the Switch Bay (Switch Module) to the interface (MUX, SMUX, or SWIF) circuit packs in the DS1, DS3, or STS1 Interface Modules. This command also tests the N-rate sync cable connector that connects the SWIO circuit packs to the CLKDR circuit packs in the same modules.

**Notes:** In order to execute this command, the SWIO and interface circuit packs at each end of the N-rate cable must be provisioned and operational. If these conditions are not met, the test for that cable (or part of the cable) does not run, and an omitted value appears for the test result.

Running this test on a frame that is incorrectly wired can cause errors on circuit packs other than those being tested. These errors are useful to installers in isolating the locations where the incorrect wiring is made.

This command tests the N-rate cable that is connected to a SWIO circuit pack pair, and is denied if there is a cross-connection on either SWIO circuit pack (that is, if either SWIO circuit pack is in the ACT state). One SWIO circuit pack pair provides service for two DS1 Interface Modules. Therefore, if one DS1 Interface Module is carrying traffic and another DS1 Interface Module is not carrying traffic but both DS1 Interface Modules are serviced by the same SWIO circuit pack pair, the **TEST-CABLE** command is denied with the error code *SNVS*.

### Input Parameters

---

a        **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

## TEST-CABLE

### Input Format

---

TEST-CABLE: [a] :b: [c] ;

### Input Parameters (Continued)

---

b        **Switch Cable ID (CABLE):**  
          {A,B,C,D,E,F,G,H,J,K,L,M,N,P,R,T}-J{1-16}

**Default:** None

**Initial System Value:** None

**Addressing Rules:** Multiple N-Rate cables can be specified.

Specifies the N-Rate switch cable to be tested. This command is denied if any of the specified cables is carrying traffic (that is, if there are any cross-connected circuits associated with them). The format of this parameter is related to the actual physical labels on the cable. That is, *a-Jn*, where *a* is letter between A and T (excluding I, O, Q, and S) and *n* is a number between 1 and 16. The cables have two labels, one on the interface module end and one on the Switch Module end. The interface end label is in the form *Jn-a* and the switch end label is in the form *JnS-a*. It is necessary to reverse the letter and J-number in this parameter to allow hierarchical range addressing in proper MML format.

- {A,B,C,D,E,F,G,H,J,K,L,M,N,P,R,T} - indicates the shelf position the N-Rate cable is servicing ( {A-H} indicates shelf position on the left side of the Switch Bay [(13-16) through (1-4); maximum DS1 configuration]; {J-T} indicates shelf positions on the right side of the Switch Bay [(17-20) through (29-32); maximum DS1 configuration]. Which shelf position an N-Rate cable services depends on the configuration of DS1, DS3, STS1/DS3/DS1, and STS1/DS3 Interface Bays.
- J{1-16} - indicates the 16 cable connectors associated with one arm of N-rate signal cables connecting to a pair of SWIO circuit packs.

c        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M  c COMPLD
   /* CABLE:FROM,TO:RESULT1,RESULT2,RESULT3,RESULT4 */
   "d:e,f:g,h,i,j"
   .
   .
   "d:e,f:g,h,i,j"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M  c DENY
   k
   { "<parsable text string>"
   ;
```

### Output Parameters

---

- c**            **Correlation Tag (CTAG):**  
              { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d**            **Switch Cable ID (CABLE):**  
              {A,B,C,D,E,F,G,H,J,K,L,M,N,P,R,T}-J{1-16}
- Specifies the individual N-Rate cable from the range specified in the **CABLE** input parameter (b).
- e**            **FROM Equipment Location (FROM):**  
              { SWIO-{1-32}, SWIF-{1-32}-{1-8,P}&-{1-8,P}&-{1-8,P}&-{1-8,P},  
              MUX-{1-32}-{1-31}&-{1-31}&-{1-31}&-{1-31},  
              MUX-{1-32}-{5}&-{6}&-{7}&MUXP-{1-32},  
              SMUX-{1-32}-{1-15}&-{1-15}&-{1-15}&-{1-15},  
              SMUX-{1-32}-{5}&-{6}&-{7}&SMUXP-{1-32} }
- Specifies the equipment that is generating the N-rate cable signals under test. This is either a SWIO circuit pack or a group of four interface circuit packs. One of the **FROM** (e) or **TO** (f) parameters is a SWIO circuit pack and the other is a group of four interface circuit packs.

# TEST-CABLE

## Output Format

---

TID YY-MM-DD HH:MM:SS  
M c (Normal Response)  
"d:e,f:g,h,i,j" (Error Response)  
k

## Output Parameters (Continued)

---

- f TO Equipment Location (TO):**  
{ SWIO-{1-32}, SWIF-{1-32}-{1-8,P}&-{1-8,P}&-{1-8,P}&-{1-8,P},  
MUX-{1-32}-{1-31}&-{1-31}&-{1-31}&-{1-31},  
MUX-{1-32}-{5}&-{6}&-{7}&MUXP-{1-32},  
SMUX-{1-32}-{1-15}&-{1-15}&-{1-15}&-{1-15},  
SMUX-{1-32}-{5}&-{6}&-{7}&SMUXP-{1-32} }
- Specifies the equipment that is receiving the N-rate cable signals under test. This is either a SWIO circuit pack or a group of four interface circuit packs. One of the FROM (e) or TO (f) parameters is a SWIO circuit pack and the other is a group of four interface circuit packs.
- g First Result (RESULT1):**  
{ PASS, FAIL }
- Specifies the result of the test between the SWIO circuit pack given in the FROM (e) and TO (f) parameters. An omitted value for this parameter indicates that the test did not run due to the SWIO circuit packs not being provisioned and/or not operating.
- **PASS** - indicates that the test passed.
  - **FAIL** - indicates that the test did not pass. A failure means either no SYNC signal at the start of the test or a SYNC signal was present after it was turned off at the SWIO circuit pack.
- h Second Result (RESULT2):**  
{ PASS, FAIL }
- Specifies the result of the test between the SWIO circuit pack and the first specified MUX or SWIF circuit pack given in the FROM (e) and TO (f) parameters. An omitted value for this parameter indicates that the test did not run due to the SWIO or interface circuit packs not being provisioned and/or not operating. The values for this parameter are the same as those given for the RESULT1 parameter (g).
- i Third Result (RESULT3):**  
{ PASS, FAIL }
- Specifies the result of the test between the SWIO circuit pack and the second specified MUX or SWIF circuit pack given in the FROM (e) and TO (f) parameters. The values for this parameter are the same as those given for the RESULT1 parameter (g).

### Output Format

---

TID YY-MM-DD HH:MM:SS  
M c  
"d:e,f:g,h,i,j" (Normal Response)  
k (Error Response)

### Output Parameters (Continued)

---

j **Fourth Result (RESULT4):**  
{ PASS, FAIL }

Specifies the result of the test between the SWIO circuit pack and the third specified MUX or SWIF circuit pack given in the FROM (e) and TO (f) parameters. The values for this parameter are the same as those given for the RESULT1 parameter (g).

k **Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error in entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SACC	Cross-connections present on N-rate cable to be tested
SNVS	Run conditions for all cables in the range have not been met
SNVS	Sync/Clock N-rate failed
SSTP	Response to <b>ABT-CMD</b>

# TEST-SW-CONTROL

## INPUT FORMAT

---

TEST-SW-CONTROL: [a]:b:[c];

**Command Name:** Test Switch Control  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command checks the control interface between the main controller (MC) and the circuit packs in the Switch Module. The test verifies the correctness of the connections between the MC and the Switch Modules by checking the control bus, error summary, serial data, and LED control leads to the SWCS, SWIO, and CLKGN circuit packs in the Switch Module.

**Notes:** In order to execute this command, the MC must be in the OOS (out-of-service) state.

When a redundant controller is retrofitted into an existing frame carrying traffic, this test must be performed after the frame has been booted from SEC and the MC is in the OOS-MCOND state. To prevent possible destruction of switch maps, this test must be performed **before** the new MC has been restored to service.

During this test, the LED for the designated circuit pack is illuminated for 3 seconds. It is your (or the person performing the test) responsibility to check that the correct LED has been activated.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Equipment Location (LOC):**  
          { SWCS-{1-32}, SWIO-{1-32}, CLKGN-{0,1}, PWRRE2-SW-{1,2} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple circuit packs can be specified using restrictive multiple addressing.

Specifies the type and location of the switch module circuit pack to test for control and connectivity. If **POWERE-SW- { 1 , 2 }** is specified for this parameter, the LEDs on both circuit packs are illuminated regardless of which location is selected.

### Input Format

TEST-SW-CONTROL: [a]:b:[c];

### Input Parameters (Continued)

c        **Correlation Tag (CTAG):**  
         { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL

**Initial System Value:** None

**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

# TEST-SW-CONTROL

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* LOC:RESULT */
"d:e"
.
.
.
"d:e"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Equipment Location (LOC):**  
{ SWCS-{1-32}, SWIO-{1-32}, CLKGN-{0,1}, POWERE-SW-{1.2} }
- Specifies the individual circuit pack from the range specified in the input LOC parameter (b).
- e Result (RESULT):**  
{ PASS, FAIL }
- Specifies the result of the control and connectivity test between the main controller and the switch module.
- **PASS** - indicates that the test passed.
  - **FAIL** - indicates that the test failed.
- f Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IISP	Syntax or punctuation error on entering input command
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is in-service

## TEST-TRMSN-T1

### INPUT FORMAT

---

TEST-TRMSN-T1: [a]:b:[c], [d], [e];

**Command Name:** Test Transmission T1  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command runs an automated loopback transmission test on a specified set of DS1 ports. This command can be used to test DS1 Ports on both SWIF/DS1IF circuit packs (DS1 ports) and DS1 Ports within DS3 Ports that terminate on MUX/SMUX circuit packs.

**Notes:** For DS1 Ports, a test signal is transmitted from the DS1IF circuit pack into the switch (that is, loops the signal back into the DS1IF circuit pack and out of the DS1 output port). An external loopback (which must be set up by you outside of the DACS IV-2000, normally at a DSX) returns the signal to the DS1 input port, where it is monitored for presence of the test signal. You have the option of looping the signal from the DS1 Output Port to the DS1 Input Port inside the DS1IF circuit pack, providing a fully internal test.

For DS1 Ports that are within a DS3 signal, you must select a DS1 Port as a testport to generate and detect the test signal. A test signal is generated from the testport and sent through the switch and out of the DS1 Output Port on the MUX/SMUX circuit pack. Again, the signal is returned to the DS1 Input Port through an external loopback, and sent back through the switch to the testport, where it is monitored.

In both cases, test signal generation and detection is performed for a five second period. The autonomous REPT TRMSN T1 message is used to report if the test signal is detected or not.

All of the DS1 Ports tested must be in the IDLE-REL state (that is, not cross-connected, not looped-back, not under test, and not being used as testports).

If any of the DS1 Ports are supported by a circuit pack that is *bad*, the command is denied. This differs from the cross-connect and test-access functions (for these, the system attempts to protect the circuit pack, and if protection can be done, the function is performed after the circuit pack is protected).

During this test, normal monitoring of other ports on the interface module(s) performing the test is suspended.

The automated loopback transmission test is aborted when the interface, SWIO, SWCS circuit pack is protected.

# TEST-TRMSN-T1

## Input Parameters

---

- a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Target ID of the DACS IV-2000.
- b       **DS1 Port (DS1):**  
          { {1-32}-{1-31}-{1-28} }
- Default:** None  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple DS1 Ports within the same DS3 equivalent can be specified with the restriction that DS1 Ports from both SWIF and MUX/SMUX circuit packs cannot be given in the same command.
- Specifies the DS1 Port tested.
- c       **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies the Correlation Tag used to associate an input command with its output response.
- d       **Loopback State (LPBK-STATE):**  
          { LPBKI, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** None
- Specifies if an Internal Loopback is desired at the DS1 Port tested. Specifying this parameter does not change the loopback state of the DS1 Port (that is, the loopback applies for the duration of the test). This parameter must be **NOVAL** if the DS1 Port tested is terminated on a MUX/SMUX circuit pack.
- **LPBKI** - indicates an Internal Loopback is used to test the specified DS1 Port.
  - **NOVAL** - indicates no loopback is set up, and an external loopback is assumed.
- e       **Testport DS1 Port (TP):**  
          { {1-32}-{1-8}-{1-28}, NOVAL }
- Default:** NOVAL  
          **Initial System Value:** None  
          **Addressing Rules:** Multiple DS1 ports within the same DS3 equivalent can be specified with the restriction that the number of DS1 Ports specified in this parameter and the **DS1** parameter (b) must match.
- Specifies the DS1 Port used to insert and detect the test signal. This parameter must be given if the DS1 Port under test is terminated on a MUX/SMUX circuit pack, and must be omitted otherwise.

## RESPONSES

---

### Normal Response

---

The duration of the test is one minute. After the test finishes, the normal response is:

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
f
[ "<parsable text string>" ]
;
```

### Output Parameters

---

**c**        **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }

Specifies the Correlation Tag used to associate an input command with its output response.

**f**        **Error Code (ERRCDE):**  
          { <4 LEGAL CHARACTERS> }

When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IDMS	DS1 Port is not specified
IDNV	Testport specified in DS1IF circuit pack
IDNV	Testport specified in MUX/SMUX circuit pack
IISP	Syntax or punctuation error in entering input command
IISP	Circuit pack is out of range
IITA	Invalid Target Identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SABT	Command aborted
SACC	Port is cross-connected
SARB	Specified path not available in the switch
SNIS	Interface module's UC is not in service
SNPV	Interface module or circuit pack is not provisioned

## TEST-TRMSN-T1

### Error Code Listing (Continued)

<b>ERRCDE</b>	<b>Condition</b>
SNVS	Port is looped
SNVS	Circuit pack is not in valid state
SNVS	Port is under test or is test port
SOSF	Interface module or circuit pack failed
SROF	Input command failed
SROF	SWIO or SWCS is under protection

## TEST-UNIT-CABLE

### INPUT FORMAT

---

TEST-UNIT-CABLE: [a] :b: [c] ;

**Command Name:** Test Unit Cable  
**Command Category:** Maintenance  
**User Privilege Code (UCFC/UCAL):** M2  
**Abortable:** Yes  
**REPT DBCHG Message:** No

### Purpose

---

This command checks the four-wire LAN (transmit and receive pairs) between the main controller (MC) and the interface module, along with the error summary and reset leads.

**Notes:** In order to execute this command, the MC must be in the OOS (out-of-service) state.

When a redundant controller is retrofitted into an existing frame carrying traffic, this test must be performed after the frame has been booted from SEC and the MC is in the OOS-MCOND state. To prevent possible destruction of switch maps, this test must be performed **before** the new MC has been restored to service.

During this test, the designated UC (interface module) is reset which assures that its LED is illuminated. The LED is turned off for 3 seconds. After 3 seconds the LED is turned on and left in the illuminated state. It is your (or the person performing this test) responsibility to check that the correct LED has been toggled.

### Input Parameters

---

a       **Target ID (TID):**  
          { <1-18 TID LEGAL CHARACTERS>, NOVAL }

**Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Target ID of the DACS IV-2000.

b       **Unit Control Cable ID (CABLE):**  
          { J{1-32} }

**Default:** None  
**Initial System Value:** None  
**Addressing Rules:** Multiple cables can be specified using restrictive multiple addressing. No hyphens are used in specifying either ranges or lists (for example, J1&&8, J1&J3) for this parameter.

Specifies the control cable to be tested between the main controller and the interface module. The format of this parameter is related to the actual physical labels on the cable. The format of this parameter is  $Jn$ , where  $n$  is a number between 1 and 32. The cables have two labels, one on the main controller end, and one on the interface module end. The main controller end label is in the form of  $Jm$ , and the interface module end is in the form of  $Jn$ .

# TEST-UNIT-CABLE

## Input Format

---

TEST-UNIT-CABLE: [a]:b:[c];

## Input Parameters (Continued)

---

- c      **Correlation Tag (CTAG):**  
          { <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Default:** NOVAL  
**Initial System Value:** None  
**Addressing Rules:** None

Specifies the Correlation Tag used to associate an input command with its output response.

## RESPONSES

---

### Normal Response

---

```
TID YY-MM-DD HH:MM:SS
M c COMPLD
/* CABLE:RESULT */
"d:e"
.
.
.
"d:e"
;
```

### Error Response

---

```
TID YY-MM-DD HH:MM:SS
M c DENY
f
["<parsable text string>"]
;
```

### Output Parameters

---

- c Correlation Tag (CTAG):**  
{ <1-10 CTAG LEGAL CHARACTERS>, NOVAL }
- Specifies the Correlation Tag used to associate an input command with its output response.
- d Unit Control Cable ID (CABLE):**  
{ J{1-32} }
- Specifies the individual cable from the range specified in the input **UCABLE** parameter (b).
- e Result (RESULT):**  
{ PASS, FAIL }
- Specifies the result of the test between the main controller and the interface module's unit controller.
- **PASS** - indicates that the test passed.
  - **FAIL** - indicates that the test failed.
- f Error Code (ERRCDE):**  
{ <4 LEGAL CHARACTERS> }
- When there is a denial, one of the following error codes appears, indicating the condition that caused it:

ERRCDE	Condition
IITA	Invalid target identifier
PICC	User does not have proper privilege code to execute this command
PLNA	User is not logged in
SNVS	MC is in service



---

### Autonomous Message Listing

■ REPT ALM COM	3-8
■ REPT ALM EC1	3-3
■ REPT ALM EQPT	3-10
■ REPT ALM LINK	3-15
■ REPT ALM T1	3-3
■ REPT ALM T2	3-3
■ REPT ALM T3	3-3
■ REPT ALM VT1	3-3
■ REPT BKUP	3-17
■ REPT CMPR MEM	3-18
■ REPT DBCHG	3-22
■ REPT DGNDT EQPT	3-25
■ REPT DISC TACC	3-27
■ REPT DLTCRS STS1	3-30
■ REPT DLTCRS T1	3-30
■ REPT DLTCRS VT1	3-30
■ REPT DROPCRS STS!	3-32
■ REPT DROPCRS T1	3-32
■ REPT DROPCRS VT1	3-32
■ REPT EVT EC1	3-34
■ REPT EVT T1	3-34
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## Autonomous Message Listing

■ REPT FAN FILTER	3-42
■ REPT LOCL IN	3-43
■ REPT PM EC1	3-45
■ REPT PM T1	3-45
■ REPT PM T3	3-45
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■ REPT RMV EQPT	3-47
■ REPT RMV LINK	3-48
■ REPT RST EQPT	3-49
■ REPT RST LINK	3-51
■ REPT RSTCRS STS1	3-52
■ REPT RSTCRS T1	3-52
■ REPT RSTCRS VT1	3-52
■ REPT SW	3-53
■ REPT TRMSN T1	3-55

---

## Autonomous Messages

# 3

---

This chapter contains the system generated autonomous messages. The messages are presented in alphabetical order.

For general information and entry formats, refer to Chapter 1. For information on commands and their associated messages refer to Chapter 2. For reference information (for example, condition types, state names, etc.) refer to the appendices.



## REPT ALM {EC1IT1IT2IT3IVT1}

### OUTPUT FORMAT

---

#### (EC1IT1IT3):

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM {EC1|T1|T3}
/* LOC:NTFCNCDE,C'TYPE,SRVEFF,,,LOCN,,,THLEV */
"c:e,f,g,,,h,,,i"
.
.
.
"c:e,f,g,,,h,,,i"
```

;

#### (T2):

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM T2
/* LOC,TRIB:NTFCNCDE,C'TYPE,SRVEFF,LOCN */
"c,d:e,f,g,h"
.
.
.
"c,d:e,f,g,h"
```

;

#### (VT1):

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM VT1
/* LOC:NTFCNCDE,C'TYPE,SRVEFF,LOCN */
"c:e,f,g,h"
.
.
.
"c:e,f,g,h"
```

;

**Command Name:** Report Alarm {EC1IT1IT2IT3IVT1}

**Command Category:** Maintenance

### Purpose

---

**(EC1):** This message reports alarm conditions associated with EC-1 Port input failures of an SMUX circuit pack within the system.

**(T1):** This message reports alarm conditions associated with DS1 Port failures for a DS1 interface circuit pack within the system and for a far-end DS1 facility failure associated with a MUX2 circuit pack provisioned to report these failures.

**(T2):** This message reports alarm conditions associated with DS2 failures for a MUX circuit pack within the system and for a far-end DS2 facility failure associated with a MUX2 circuit pack provisioned to report these failures.

**(T3):** This message reports alarm conditions associated with DS3 Port input failures of a MUX circuit pack within the system and for a far-end DS3 facility failure associated with a MUX2 circuit pack provisioned to report far-end failures.

## REPT ALM {EC1|T1|T2|T3|VT1}

**(VT1):** This message reports alarm conditions associated with VT1.5 Port input failures within an SMUX circuit pack.

**Notes:** For procedures on clearing alarms, refer to the section titled **Prioritizing Alarms** in Chapter 12 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

### Output Parameters

---

a **Alarm Code (ALMCDE):**  
{ \*\*, \*, A }

Specifies the Alarm Code (Priority of Action), which identifies the severity of this autonomous message.

- \*\* - indicates a Major Alarm.
- \* - indicates a Minor Alarm
- A - indicates No Alarm.

b **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

c **Port (PORT):**

**(EC1):** EC-1 Port: { {1-32}-{1-15} }

**(T1):** DS1 Port/DS3 Port: { {1-32}-{1-31}-{1-28}, MUX-{1-32}-{1-31} }

**(T2|T3):** DS3 Port: { {1-32}-{1-31} }

**(VT1):** VT1.5 Port: { {1-32}-{1-15}-{1-28} }

Specifies the port associated with the alarm condition.

**(EC1):** Specifies the EC-1 Port associated with the alarm condition at the near-end SMUX circuit pack.

**(T1):** Specifies the DS1 Port associated with the alarm condition or the MUX2 circuit pack provisioned to report far-end DS1 facility conditions.

**(T2):** Specifies the DS3 Port associated with the alarm condition or the MUX2 circuit pack provisioned to report far-end DS2 facility conditions.

**(T3):** Specifies the DS3 Port associated with the alarm condition at the near-end MUX circuit pack or on a MUX2 circuit pack provisioned to report far-end DS3 facility failures.

**(VT1):** Specifies the VT1.5 Port associated with the alarm condition at the near-end SMUX circuit pack.

d **DS2 Tributary (TRIB):**

**(T2):** { 1-7 }

**(T1|T3|VT1|EC1):** { <not used> }

Specifies the DS2 Tributary associated with the alarm condition.

**Output Format**

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM {EC1|T1|T2|T3|VT1}
/* LOC:NTPFCNCDE,CTYPE,SRVEFF,,,LOCN,,,THLEV */
"c:e,f,g,,,h,,,i"
or
/* LOC,TRIB:NTPFCNCDE,CTYPE,SRVEFF,LOCN */
"c,d:e,f,g,h"
or
/* LOC:NTPFCNCDE,CTYPE,SRVEFF,LOCN */
"c:e,f,g,h"
```

**Output Parameters (Continued)**

---

e **Notification Code (NTPFCNCDE):**  
 { MJ, MN, NA, CL }

Indicates the notification code for the alarm condition.

- **MJ** - indicates Major Alarm
- **MN** - indicates Minor Alarm
- **NA** - indicates No Alarm
- **CL** - indicates Cleared Alarm.

f **Condition Type (CTYPE):**  
**(EC1):** { LOS, LOF, LOP, AISL, AISP, YEL, T-BERL, SLMF, FERF }  
**(T1):** { T-BER, LOS, LOF, DS1-AIS, YEL, INC, MINC }  
**(T2):** { OOF }  
**(T3):** { T-BER, LOS, OOF, AIS, AISFRAMED, AISUNFRAMED, IDLE,  
 ALLDS2SOOF, INC, YEL, SBITFAIL, DS3FRMTMISMATCH }  
**(VT1):** { LOP, AISP, YEL }

Specifies the type of alarm indication. The following table identifies the alarm conditions associated with the near- and far-end.

Signal Type	Condition Type(s)	
	Near-End	Far-End
T1	LOS, LOF, T-BER, DS1-AIS, YEL	INC, MINC
T2	OOF	OOF
T3 (MUX1)	T-BER, LOS, OOF, AIS	
T3 (MUX2)	T-BER, LOS, OOF, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, DS3FRMTMISMATCH	INC, OOF, AIS, IDLE, YEL, SBITFAIL
EC1	LOS, LOF, LOP, T-BERL, SLMF, AISL, AISP, YEL, FERF	
VT1	LOP, AISP, YEL	

- **AIS** - indicates Alarm Indication Signal detected.
- **AISFRAMED** - indicates a Framed Alarm Indication Signal.
- **AISUNFRAMED** - indicates an Unframed Alarm Indication Signal.

# REPT ALM {EC1|T1|T2|T3|VT1}

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM {EC1|T1|T2|T3|VT1}
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN,,,THLEV */
"c:e,f,g,,,h,,,i"
or
/* LOC,TRIB:NTFCNCDE,CTYPE,SRVEFF,LOCN */
"c,d:e,f,g,h"
or
/* LOC:NTFCNCDE,CTYPE,SRVEFF,LOCN */
"c:e,f,g,h"
```

## Output Parameters (Continued)

---

- **AISL** - indicates Line Alarm Indication Signal.
- **AISP** - indicates Path Alarm Indication Signal.
- **ALLDS2SOOF** - indicates all DS2s in a DS3 signal are Out of Frame.
- **DS1-AIS** - indicates DS1 Alarm Indication Signal detected.
- **DS3FRMTMISMATCH** - indicates DS3 Format Mismatch detected.
- **FERF** - indicates Far End Receive Failure.
- **IDLE** - indicates Idle.
- **INC** - indicates incoming DS3 or DS1 failure (for far-end).
- **LOF** - indicates Loss of Frame.
- **LOP** - indicates Loss of Pointer.
- **LOS** - indicates Loss of Signal.
- **MINC** - indicates Multiple Incoming failures (for far-end).
- **OOF** - indicates Out of Frame.
- **SBITFAIL** - indicates SBIT communications protocol failure (for far-end).
- **SLMF** - indicates Signal Label Match Failure.
- **T-BER** - indicates Bit Error Rate Threshold exceeded.
- **T-BERL** - indicates Line Soft Bit Error Rate Threshold exceeded.
- **YEL** - indicates Yellow Signal (far-end for T3).

g **Service Affecting (SRVEFF):**  
{ SA, NSA }

Indicates whether the alarm condition is service-affecting (**SA**) or non-service-affecting (**NSA**).

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM {EC1|T1|T2|T3|VT1}
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN,,,THLEV */
"c:e,f,g,,,h,,,i"
or
/* LOC,TRIB:NTFCNCDE,CTYPE,SRVEFF,LOCN */
"c,d:e,f,g,h"
or
/* LOC:NTFCNCDE,CTYPE,SRVEFF,LOCN */
"c:e,f,g,h"
```

## Output Parameters (Continued)

---

**h Location (LOCN):**  
{ NEND, FEND }

Specifies the location with which the condition is associated.

**(EC1|VT1):** This parameter has a value of NEND only.

**(T1):** Reporting of far-end DS1 facility failure conditions are indicated by this value set to FEND and the CTYPE parameter (f) value set to INC (see the **Condition Types** appendix for more information).

**(T2):** Reporting of far-end DS2 facility failure conditions are indicated by this value set to FEND and the CTYPE parameter (f) value set to OOF (see the **Condition Types** appendix for more information).

**(T3):** Reporting of far-end DS3 facility failure conditions are indicated by this value set to FEND and the CTYPE parameter (f) value set to AIS, INC, IDLE, YEL, or LOF (see the **Condition Types** appendix for more information).

- **NEND** - indicates the condition is associated with near-end equipment in the DACS IV-2000.
- **FEND** - indicates the condition is associated with far-end equipment.

**i Bit Error Rate Threshold (BER):**  
**(EC1|T1|T3):** { 3-9 }  
**(T2|VT1):** { <not used> }

Specifies the Bit Error Rate threshold for the specified port. The domain corresponds to BERs of  $10^{-3}$  through  $10^{-9}$ .

**(T1):** This parameter is omitted when reporting far-end DS1 facility failure conditions.

**(EC1):** This parameter specifies the Bit Error Rate Line threshold for an STS-1.

# REPT ALM COM

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM COM
/* COM:NTFCNCDE,CTYPE,SERVEFF */
"COM:c,d,e"
.
.
.
"COM:c,d,e"
;
```

**Command Name:** Report Alarm Common  
**Command Category:** Maintenance

### Purpose

---

This message reports alarm transitions associated with the DACS IV-2000 as a whole, in the form of escalation from *clear* to *critical* alarm and de-escalation from *critical* alarm to *clear*. Clear does not imply that there are no alarms present on the system, but rather that there are no critical alarms present.

**Notes:** For procedures on clearing alarms, refer to the section titled **Prioritizing Alarms** in Chapter 12 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance manual* (AT&T 365-340-701).

### Output Parameters

---

a **Alarm Code (ALMCDE):**  
{ \*C, A }

Specifies the Alarm Code (Priority of Action), which identifies the severity of this autonomous message.

- \*C - indicates a Critical Alarm.
- A - indicates No Alarm.

b **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

c **Notification Code (NTFCNCDE):**  
{ CL, CR }

Indicates the notification code for the alarm condition.

- CL - indicates that the system transitioned from the CR (Critical) alarm state to the CL (non-Critical-Clear) alarm state.
- CR - indicates that the system transitioned from the CL (non-Critical-Clear) alarm state to the CR (Critical) alarm state.

### Output Format

---

```
TID YY-MM-DD HH:MM:SS  
a b REPT ALM COM  
/* COM:NTFCNCDE,CTYPE,SERVEFF */  
"COM:c,d,e"
```

### Output Parameters (Continued)

---

d        **Condition Type (CTYPE):**  
         { FAC, INT, GP }

Specifies the type of alarm indication. If the system is provisioned to raise CR for facility and equipment failures (both), the last event which caused the transition into or out of Critical alarm is indicated by this parameter (FAC or INT).

- **FAC** - indicates that the transition into CR was caused by a facility alarm onset.
- **INT** - indicates that the transition into CR was caused by an equipment alarm onset.
- **GP** - indicates General Purpose. This parameter is GP when the NTFCNCDE parameter (c) is MJ or MN. GP is equivalent to a null value.

e        **Service Affecting (SRVEFF):**  
         { SA, NSA }

Indicates whether the alarm condition is service-affecting (**SA**) or not service-affecting (**NSA**). Currently only the SA value can be used for this parameter.

Critical alarms (CR) are service-affecting irrespective to the fact that major (MJ) alarms contributing to CR can be service-affecting or not service-affecting. This is because all critical alarms, if not cleared immediately, can affect service.

# REPT ALM EQPT

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM EQPT
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,,TROUBLE */
"c:d,e,f,,,g:,,h"
.
.
.
"c:d,e,f,,,g:,,h"
;
```

**Command Name:** Report Alarm Equipment  
**Command Category:** Maintenance

## Purpose

---

This message reports alarm conditions associated with equipment failures for equipment within the system and for a far-end equipment failure associated with a MUX2 circuit pack provisioned to report these failures.

**Notes:** For procedures on clearing alarms, refer to the section titled **Prioritizing Alarms** in Chapter 12 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

Reporting of far-end equipment failure conditions are indicated by the `LOCN` parameter (g) set to `FEND` and the `CTYPE` parameter (e) value set to `MUX`, `DS1IF`, or `COM`.

If a DS3 interface port is looped back to itself and the `S-BIT` or `FEAC` is set, that interface port sends and receives its own messages.

There is one equipped interrupt lead for all six Switch Bay power circuit packs (PWRA-{1-4} and POWERE-SW-{1,2}). This can result in the system reporting that more than one power circuit pack was removed from the frame when only one circuit pack was removed.

## Output Parameters

---

a **Alarm Code (ALMCDE):**  
{ \*\*, \*, A }

Specifies the Alarm Code (Priority of Action), which identifies the severity of this autonomous message.

- \*\* - indicates a Major Alarm.
- \* - indicates a Minor Alarm
- A - indicates No Alarm.

b **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every `REPT` message that is generated. This counter wraps around from 999 to 001.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM EQPT
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,:TROUBLE */
"c:d,e,f,,,g:,:h"
```

## Output Parameters (Continued)

---

c       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, UI, PRI-{1,2}, SEC, ECI-{1,2}, SCI-{1,2}, CLKGN-{0,1},  
          SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4},  
          MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P},  
          DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, SMUX-{1-32}-{1-15},  
          SMUXP-{1-32}, DS1RY-{1-32}-{1-4}, PWRE-{1-32}-{1-2},  
          POWERE-SW-{1,2}, PWRP-{1,2}, PWRG-{1,2}, FAN, DPLL-{0,1}, TB-{0,1},  
          TX-{0,1}, SYNCPRI-{0,1}, SYNCSEC-{0,1}, SYNCN }

Specifies the type and location of equipment associated with the alarm condition.

The value `SYNCN` addresses alarm conditions not associated with a single equipment location.

d       **Notification Code (NTFCNCDE):**  
          { MJ, MN, NA, CL }

Indicates the notification code for the alarm condition.

- **MJ** - indicates Major Alarm
- **MN** - indicates Minor Alarm
- **NA** - indicates No Alarm
- **CL** - indicates Cleared Alarm.

e       **Condition Type (CTYPE):**  
          { ACPWR, ALLREFFAIL, BKUPMEMS, COM, CONTBUS, DS1IF, DTLCH, EOR,  
          EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPRBLK,  
          IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LOS, MUX, MAN, OOF,  
          PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1,  
          SYNCFRNG, SYNCFST, SYNCHLDOVR, SYPLN, TBCOLD, TBIOER, TBLN,  
          TBNDF, TODC, TRBER, TRMNER, URTER, X1LEN, X3LEN, XCOOL, XCRTV,  
          XCSUM, XFLRG, XFQOF, XLKDN }

Specifies the type of alarm indication. `ACPWR`, `COM`, `DS1IF`, and `MUX` are far-end condition types only.

- **ACPWR** - indicates AC Power Failure detected.
- **ALLREFFAIL** - indicates failure of all synchronizer timing references.
- **BKUPMEMS** - indicates secondary nonvolatile backup failure detected.
- **COM** - indicates Common equipment failure detected.
- **CONTBUS** - indicates Control bus failure detected.
- **DS1IF** - indicates DS1 Interface equipment failure detected.
- **DTLCH** - indicates Data Latch Error detected.
- **EOR** - indicates End-of-Range Error detected.

## REPT ALM EQPT

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM EQPT
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,,TROUBLE */
"c:d,e,f,,,g:,,h"
```

### Output Parameters (Continued)

---

- **EXJIT** - indicates Excessive Jitter detected.
- **EXPHR** - indicates Excessive Phase Error detected.
- **FRQOF** - indicates Frequency Offset Error detected.
- **FSNLN** - indicates Frequency Synthesizer Loss of Energy detected.
- **FSTO** - indicates PLL Fast Start Time-out.
- **ICTLR** - indicates Interrupt Controller Error detected.
- **IHRER** - indicates Interrupt Holding Register Error detected.
- **IMPROPBLK** - indicates Improper blank circuit pack detected.
- **IMPROPRMVL** - indicates Improper removal detected.
- **INHSWPR** - indicates Switch to protection equipment inhibited.
- **INHSWWKG** - indicates Switch to working equipment inhibited.
- **INT** - indicates Internal hardware fault or failure detected.
- **LERDF** - indicates Line Error Detector Failure detected.
- **LOS** - indicates Loss of signal detected.
- **MAN** - indicates Manually removed from service.
- **MUX** - indicates Multiplex equipment failure detected.
- **OOF** - indicates Out of Frame detected.
- **PFLCH** - indicates Phase/Frequency Readable Output Latch Error detected.
- **PHSTP** - indicates Phase Step Error detected.
- **PSHLN** - indicates Phase Shifter Output Loss of Energy detected.
- **RAMER** - indicates RAM Error detected.
- **ROMER** - indicates ROM Error detected.
- **RTV** - indicates Real-Time Violation detected.
- **SYNCCLK0** - indicates Detected failure is in Side 0 Clock Hardware
- **SYNCCLK1** - indicates Detected failure is in Side 1 Clock Hardware
- **SYNCFRNG** - indicates Synchronizer has made a transition into free-running mode.
- **SYNCFST** - indicates Synchronizer has made a transition into fast-start mode.
- **SYNCHLDOVR** - indicates Synchronizer has made a transition into holdover mode.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS  
a b REPT ALM EQPT  
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,,TROUBLE */  
"c:d,e,f,,,g:,,h"
```

## Output Parameters (Continued)

---

- **SYPLN** - indicates Sync Pulse Generator Loss of Energy detected.
- **TBCOLD** - indicates Time Base Oven Cold
- **TBIOER** - indicates Time Base Communication Error detected.
- **TBLEN** - indicates Time Base Strobe Loss of Energy detected.
- **TBNDF** - indicates Time Base Strobe Energy Detector Failure
- **TODC** - indicates Time-of-Day Clock
- **TRBER** - indicates High Bit-Error Rate on a Synchronization Timing Reference detected.
- **TRMNER** - indicates Minor Bit-Error Rate on a Synchronization Timing Reference detected.
- **URTER** - indicates UART Error detected.
- **X1LEN** - indicates Loss of Energy on 1 ms Synchronizer Crosscouple detected.
- **X3LEN** - indicates Loss of Energy on 30 ms Synchronizer Crosscouple detected.
- **XCOOL** - indicates Synchronizer Crosscouple Out-of-Lock Error detected.
- **XCRTV** - indicates Synchronizer Crosscouple Real-Time Violation Error detected.
- **XCSUM** - indicates Synchronizer Crosscouple Summary Error detected.
- **XFLRG** - indicates Synchronizer Crosscouple Fast Lock Range Error detected.
- **XFQOF** - indicates Synchronizer Crosscouple Frequency Offset Error detected.
- **XLKDN** - indicates Synchronizer Crosscouple Communication Link Error detected.

f **Service Affecting (SRVEFF):**  
{ SA, NSA }

Indicates whether the alarm condition is service-affecting (**SA**) or non-service-affecting (**NSA**).

# REPT ALM EQPT

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM EQPT
/* LOC:NTFCNCDE,CTYPE,SRVEFF,,,LOCN:,:TROUBLE */
"c:d,e,f,,,g:,:h"
```

## Output Parameters (Continued)

---

g **Location (LOCN):**  
{ NEND, FEND }

Specifies the location where the condition is associated with. Reporting of far-end equipment failure conditions are indicated by this parameter being set to FEND and the CTYPE parameter (e) being set to MUX, DS1IF, or COM (see the **Condition Types** appendix for more information). COM indicates that the far-end multiplexer has an equipment problem.

- **NEND** - indicates the condition is associated with near-end equipment in the DACS IV-2000.
- **FEND** - indicates the condition is associated with far-end equipment.

h **Trouble List (TROUBLE):**  
{ ISO, NIPSS, NIMAN, DGN }

Specifies the significance of the isolation information provided by the LOC parameter (c). This parameter is omitted when reporting far-end equipment failure conditions.

- **ISO** - means that the fault has been isolated to the replaceable circuit pack and that circuit pack has been identified.
- **NIPSS** and **NIMAN** - mean that the fault is not isolated, and either all diagnostics passed (NIPSS) or manual isolation must be performed (NIMAN). In both cases, the LOC parameter (c) specifies the suspected circuit packs.
- **DGN** - means that diagnostics are in progress, and that the results are returned in a later message. In this case, the LOC parameter (c) specifies the circuit packs under diagnostics.

## REPT ALM LINK

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM LINK
/* LOC:NTFCNCDE,CTYPE,SRVEFF:.,TROUBLE */
"c:d,e,f:.,g"
.
.
.
"c:d,e,f:.,g"
;
```

**Command Name:** Report Alarm Link  
**Command Category:** Maintenance

### Purpose

---

This message reports alarms associated with administrative or data link failures.

**Notes:** For procedures on clearing alarms, refer to the section titled **Prioritizing Alarms** in Chapter 12 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance manual* (AT&T 365-340-701).

### Output Parameters

---

- a **Alarm Code (ALMCDE):**  
{ \*\*, \*, A }
- Specifies the Alarm Code (Priority of Action), which identifies the severity of this autonomous message.
- \*\* - indicates a Major Alarm.
  - \* - indicates a Minor Alarm
  - A - indicates No Alarm.
- b **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- c **Link ID (LINKID):**  
{ CILINK-{1,2}-{1-6} }
- Specifies the location of the administrative or data link associated with the alarm condition.

# REPT ALM LINK

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
a b REPT ALM LINK
/* LOC:NTFCNCDE,CTYPE,SRVEFF:,:,TROUBLE */
"c:d,e,f:,:,g"
```

## Output Parameters (Continued)

---

d        **Notification Code (NTFCNCDE):**  
         { MN, CL, NA }

Indicates the notification code for the alarm condition.

- **MN** - indicates Minor Alarm
- **NA** - indicates No Alarm
- **CL** - indicates Cleared Alarm.

e        **Condition Type (CTYPE):**  
         { EXTERR, INT, FRD }

Specifies the type of alarm indication.

- **EXTERR** - indicates Error detected external to the DACS IV-2000 system.
- **FRD** - indicates Security violation has occurred.
- **INT** - indicates Internal hardware fault or failure detected.

f        **Service Affecting (SRVEFF):**  
         { NSA }

Indicates that the alarm condition is non-service-affecting (**NSA**).

g        **Trouble List (TROUBLE):**  
         { ISO, NIPSS, NIMAN, DGN }

Specifies the significance of the isolation information provided by the `LINKID` parameter (c). This parameter is omitted when reporting far-end equipment failure conditions.

- **ISO** - means that the fault has been isolated to the failed link and that link has been identified.
- **NIPSS** and **NIMAN** - mean that the fault is not isolated, and either all diagnostics passed (**NIPSS**) or manual isolation must be performed (**NIMAN**). In both cases, the `LINKID` parameter (c) specifies the suspected links.
- **DGN** - means that diagnostics are in progress, and that the results are returned in a later message. In this case, the `LINKID` parameter (c) specifies the links under diagnostics.

## REPT BKUP

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT BKUP
/* FROM,,TO:MEMCLASS:STATUS */
"b,,c:d:e"
;
```

**Command Name:** Report Backup  
**Command Category:** Administration

### Purpose

---

This message reports the completion (or noncompletion) of an automatic PRI to SEC database backup.

### Output Parameters

---

- a        **Autonomous Sequence Number (ASEQ):**  
          { <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- b        **FROM Memory Type (FROM):**  
          { PRI }
- Specifies the memory from which the data is copied.
- **PRI** - indicates primary memory.
- c        **TO Memory Type (TO):**  
          { SEC }
- Specifies the memory to which the data is copied.
- **SEC** - indicates secondary memory.
- d        **Memory Class (MEMCLASS):**  
          { DBASE }
- Specifies the class of memory copied.
- **DBASE** - indicates database.
- e        **Status (STATUS):**  
          { PASS, FAIL }
- Specifies the pass/fail status of the scheduled backup.
- **PASS** - indicates backup occurred as scheduled.
  - **FAIL** - indicates backup did not occur as scheduled.

# REPT CMPR MEM

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT CMPR MEM
/* MEM1,LOC1,MEM2,LOC2:DTYPE,DATA1,DATA2 */
"b,c,d,e:f,g,h"
;
```

**Command Name:** Report Compare Memory  
**Command Category:** Maintenance

### Purpose

---

This message reports frame audit memory comparison mismatches.

**Notes:** For procedural information clearing this message, refer to the section titled **REPT CMPR MEM Message** in Chapter 13 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **First Memory Type (MEM1):**  
{ WKG }

Specifies the memory type of the first memory from which the mismatch was found.

- **WKG** - indicates working system memory.

c **First Memory Location (LOC1):**  
{ MC, CPU-{0,1}, ECI-{1,2}, UC-{1-32}, DS3PM-{1-32} }

Specifies the equipment location associated with the first memory type.

d **Second Memory Type (MEM2):**  
{ WKG, PRI }

Specifies the memory type of the second memory from which the mismatch was found.

- **WKG** - indicates working system memory.
- **PRI** - indicates primary nonvolatile backup.

**Output Format**

---

```
TID YY-MM-DD HH:MM:SS
A a REPT CMPR MEM
/* MEM1, LOC1, MEM2, LOC2: DTYPE, DATA1, DATA2 */
"b, c, d, e: f, g, h"
```

**Output Parameters (Continued)**

---

- e **Second Memory Location (LOC2):**  
 { MC, CPU-{0,1}, ECI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32},  
 UC-{1-32}, MUX-{1-32}-{1-31}, MUXP-{1-32}, SWIF-{1-32}-{1-8,P},  
 DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, {1-32}-{1-8}-{1-28},  
 {1-32}-{1-31}, SMUX-{1-32}-{1-15}, SMUXP-{1-32} }  
 Specifies the equipment, DS1 Port, DS3 Port, or EC-1 Port location associated with the second memory type.
- f **Data Type (DTYPE):**  
 { <see below> }  
 Specifies the type of data that was compared. Valid values are given in the following table (for some Data Types, the information contained in the DATA1 [g] and DATA2 [h] parameters is not the data found, but other information).

Data Type	Definition
AUTOEQL	DIP switch equalization mismatch
AUTOFORMAT	DIP switch format mismatch
BERCALC	BER calculation (BPV, Parameter) mismatch
CHKSUM	RAM checksum mismatch
EQL	Equalization state mismatch
EXTINT	External interrupt
FASIGHLTH	Health of signal
FAFSWIO	Start SWIO for interface module
FAFUCID	Unit ID
FAFPROTECTED	Slot being protected
FAPROSWIO	Protected SWIO
FAPPACKRPT	Circuit pack report
FAPHWIDVAL	Hardware ID value
FAPLBOEQUAL	LBO setting on the circuit pack
FAPACKHEAL	Reported health
FAPACKPROT	Circuit pack protected
FAPLINELPBK	STS-1 line loopback ON or OFF
FAEXPCLLI	Expected CLLI
FAPTXCLLI	Transmitted CLLI
FAPNESTSSTH	NE STS-1 section SES CV threshold
FAPNESTSLTH	NE STS-1 line SES CV threshold
FAPNESTSPTH	NE STS-1 path SES CV threshold
FAPNEVT1PTH	NE VT1.5 section SES CV threshold
FAPFESTSPTH	NE VT1.5 line SES CV threshold
FAPFEVT1PTH	NE VT1.5 path SES CV threshold
FACSTSRPT	STS-1 report or not - health
FACSTSINPST	STS-1 provisioned state of signal
FACSTSHLTH	STS-1 reported health information

Table continued on next page.

# REPT CMPR MEM

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT CMPR MEM
/* MEM1,LOC1,MEM2,LOC2:DTYPE,DATA1,DATA2 */
"b,c,d,e:f,g,h"
```

## Output Parameters (Continued)

---

Data Type	Definition
FACSTSFMAT	STS-1 signal format
FACSTSSBER	STS-1 section BER threshold
FACSTSLBER	STS-1 line BER threshold
FACSTSPMMOD	STS-1 PM mode
FACSTSATCA	STS-1 allow/inhibit PM TCA
FACSTSADLY	STS-1 alarm delay - onset soak time
FACSTSACDLY	STS-1 alarm - clear soak time
FACVT1RPT	VT1.5 report or not - health
FACVT1INPST	VT1.5 provisioned state of signal
FACVT1HLTH	VT1.5 reported health information
FACVT1FMAT	VT1.5 signal format
FACVT1SBER	VT1.5 section BER threshold
FACVT1LBER	VT1.5 line BER threshold
FACVT1PMMOD	VT1.5 PM mode
FACVT1ATCA	VT1.5 allow/inhibit PM TCA
FACVT1ADLY	VT1.5 alarm delay - onset soak time
FACVT1ACDLY	VT1.5 alarm - clear soak time
FATEC1PER	STS-1 EC-1 period
FATVTPER	VT1.5 period
FORMAT	DS3 signal format mismatch
HDWID	Hardware ID mismatch
HEALTH	Circuit pack health state mismatch
HEALTHRP	Circuit pack health reporting state mismatch
ISTATE	Input state mismatch
LBO	LBO state mismatch
LED	LED state mismatch
LOOPBACK	Loopback state mismatch
MAP	Cross-connect path failure
MAPIDLE	Alternate chip on XCON not idled
PARITY	Switch parity mismatch
PMMCBUAS	Performance monitoring unavailable seconds
PROTECT	Protection state mismatch
PROTMAP	Alternate protection path failure
SW1PROT	Service/Protection feed mismatch
SW2PROT	Service/Protection feed mismatch
THRESHOLD	BER threshold mismatch
TYPE	Circuit pack type mismatch

---

### Output Format

---

```
TID YY-MM-DD HH:MM:SS  
A a REPT CMPR MEM  
/* MEM1,LOC1,MEM2,LOC2:DTYPE,DATA1,DATA2 */  
"b,c,d,e:f,g,h"
```

### Output Parameters (Continued)

---

- g**        **First Memory Data (DATA1):**  
          { <4-8 HEX DIGIT NUMBER> }
- Specifies the data found at the First Memory Address. For details concerning hexadecimal conversion procedures, see the **Diagnostic Tests** appendix.
- h**        **Second Memory Data (DATA2):**  
          { <4-8 HEX DIGIT NUMBER> }
- Specifies the data found at the Second Memory Address. For details concerning hexadecimal conversion procedures, see the **Diagnostic Tests** appendix.

# REPT DBCHG

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DBCHG
/* LOC:STATE,DSEQ,DATE,TIME,LINK,UID,COMMAND */
"b:c,d,e,f,g,h,i"
.
.
.
"b:c,d,e,f,g,h,i"
;
```

**Command Name:** Report Database Change  
**Command Category:** Administration

### Purpose

---

This message reports database changes due to autonomous system actions other than those reported with alarm messages and reports database changes due to manual input commands. These reports includes:

- State changes caused by the insertion and pulling of unprovisioned circuit packs.
- Facility state changes caused by the autonomous release of loopbacks and test access connections due to login terminations.
- Facility changes caused by autonomous activation and releasing of DS3/DS1 loopbacks as requested from the far-end.
- Facility changes caused by autonomous DS1 performance monitoring camp-on.

**Notes:** The provisioning sequences (the order in which different equipment types must be provisioned and deprovisioned) are described in the **Notes** section of the **ENT-EQPT** command.

Each command entry in Chapter 2 indicates whether or not a REPT DBCHG message is generated for that command.

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DBCHG
/* LOC:STATE,DSEQ,DATE,TIME,LINK,UID,COMMAND */
"b:c,d,e,f,g,h,i"
```

## Output Parameters (Continued)

---

- b Equipment Location/(DS3|DS1|EC-1) Port (LOC):**  
{ SWIO-{1-32}, CLKDR-{1-32}-{1-4}, SWCS-{1-32}, CLKGN-{0,1},  
MUX-{1-32}-{1-31}, MUXP-{1-32}, SWIF-{1-32}-{1-8,P},  
DS1IF-{1-32}-{1A-8B}, MUXPS-{1-32}, DS1IP-{1-32}-{PA,PB},  
DS1RY-{1-32}-{1-4}, {1-32}-{1-31}, SMUX-{1-32}-{1-15}, SMUXP-{1-32},  
{1-32}-{1-31}-{1-28}, DPLL-{0,1}, TB-{0,1}, TX-{0,1} }
- Specifies the type of equipment and its location, the DS3 Port of a MUX circuit pack, the DS1 Port of a DS1 interface or MUX circuit pack, or the EC-1 Port of an SMUX circuit pack. "/" indicates "or" in the parameter name. This parameter is output if the database change is due to an autonomous action by the system.
- c Location State (STATE):**  
{ <see below> }
- Specifies the state of the specified circuit pack, the specified DS1 Port state, or the specified DS3 Port Loopback State. A list of equipment and facility states, along with their meanings, are listed in the **State Names** appendix. This parameter is output if the database change is due to an autonomous action by the system.
- d Database Change Sequence Number (DSEQ):**  
{ <4 DIGIT DECIMAL NUMBER> }
- Specifies the database change sequence number that is used to track the sequence of autonomous messages. The value is a four-digit decimal counter which increments for every change to the database which occurs. This counter wraps around from 9999 to 0001.
- When the command code for the **COMMAND** parameter (i) is **ED-STATE-EQPT** or **RMV-EQPT** and the **LOC** is **MC**, this parameter is 0000.
- e Date (DATE):**  
{ {00-99}-{01-12}-{01-31} }
- Specifies the date when the database change occurred as YY-MM-DD, where YY is the last two digits of the year, MM is the month, and DD is the day of the month.
- This parameter is not omitted when this message is used to report database changes other than those due to command input.
- f Time (TIME):**  
{ {00-23}-{00-59}-{00-59} }
- Specifies the time when the database change occurred as HH-MM-SS, where HH is the hour, MM is the minutes, and SS is the seconds.
- This parameter is not omitted when this message is used to report database changes other than those due to command input.

# REPT DBCHG

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A  a REPT DBCHG
   /* LOC:STATE,DSEQ,DATE,TIME,LINK,UID,COMMAND */
   "b:c,d,e,f,g,h,i"
```

## Output Parameters (Continued)

---

**g**        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }

Specifies the administrative or data link the command was entered over to cause the database change. This parameter is only specified if the database change is due to command input. Otherwise, this parameter is omitted.

**h**        **User ID (UID):**  
          { <1-10 UID LEGAL CHARACTERS> }

Specifies the user identification (UID) name of the user who entered the command causing the database change. This parameter is only specified if the database change is due to command input. Otherwise, this parameter is omitted.

**i**        **Command (COMMAND):**  
          { <see below> }

Specifies the actual command entered (this includes the command code and parameters) which resulted in the database change. This parameter is only specified if the database change is due to command input. Otherwise, this parameter is omitted.

The format of this parameter is the same as what is echoed in the primary line of the output message response for the command listed in this parameter when the link has the Dialog Mode set to **MENU**.

## REPT DGNDET EQPT

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DGN EQPT
/* LOC: , ITER, PHASES, RESULT, EXPECTED, MEASURED */
"b: , c, d, e, f, g"
.
.
.
"b: , c, d, e, f, g"
;
```

**Command Name:** Report Diagnose Detail Equipment  
**Command Category:** Maintenance

### Purpose

---

This message reports failed diagnostics on equipment which were run autonomously by the system. The reports include details of the diagnostic results.

**Notes:** For procedural information clearing this message, refer to the section titled **REPT DGNDET EQPT Message** in Chapter 13 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

### Output Parameters

---

- a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- b **Equipment Location (LOC):**  
{ CPU-{0,1}, UI, MTC-{0,1}, SSC-{0,1}, PRI-{1,2}, SEC, MEM, ECI-{1,2}, CILINK-{1,2}-{1-6}, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, DPLL-{0,1}, TB-{0,1}, TX-{0,1}, SMUX-{1-32}-{1-15}, SMUXP-{1-32} }
- Specifies the type of equipment that was diagnosed and its location.
- c **Iteration (ITER):**  
{ 1 }
- Specifies the iteration of the diagnostic in which the failure occurred.
- d **Failed Diagnostic Phases (PHASES):**  
{ <4 DIGIT HEX NUMBER> }
- Indicates the diagnostic phase in which the failure occurred. For details concerning this parameter and hexadecimal conversion procedures, see the **Diagnostic Tests** appendix.

# REPT DGNDET EQPT

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DGN EQPT
/* LOC: , ITER, PHASES, RESULT, EXPECTED, MEASURED */
"b: ,c,d,e,f,g"
```

## Output Parameters (Continued)

---

- e        **Result (RESULT):**  
          { FAIL }
- Specifies the results of the diagnostics. Since this report is only generated when diagnostic failure occurs, the value is FAIL.
- f        **Expected Diagnostic Data (EXPECTED):**  
          { <1-40 LEGAL CHARACTERS enclosed in (\")> }
- Specifies the expected values of diagnostic data associated with the phase which failed. This parameter is enclosed in escaped quotes (\"). This parameter is currently omitted, but may be used in future software releases.
- g        **Measured Diagnostic Data (MEASURED):**  
          { <1-40 LEGAL CHARACTERS enclosed in (\")> }
- This parameter only appears if the RESULT parameter (e) is FAIL. This parameter provides an explanation for failures that involve clock or data signals received from another circuit pack. For most failures, this parameter is omitted. This parameter is enclosed in escaped quotes (\").

## REPT DISC TACC

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DISC TACC
/* TAP:E-PORT,F-PORT,E-SIG,F-SIG,E-OMODE,F-OMODE,EF-STAT,FE-STAT */
"m:n,o,p,q,r,s,t,u"
.
.
.
"m:n,o,p,q,r,s,t,u"
;
```

**Command Name:** Report Disconnect Test Access

**Command Category:** Test access

### Purpose

---

This message reports autonomous disconnect of a test session, and restoration of the original cross-connections.

**Notes:** Disconnecting test access has the following effect on the output mode:

- If, at the time of disconnect, the Test Mode is SPLTE, SPLTEF, or LOOPE, the output modes of all ports that the E-End is transmitting to are restored to the values that they had before this Test Mode was entered.
- If, at the time of disconnect, the Test Mode is SPLTF, SPLTEF, or LOOPF, the output modes of all ports that the F-End is transmitting to are restored to the values that they had before this test mode was entered.
- In all other cases, the output modes of the ports under test are not affected.

Refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual* (AT&T 365-340-700) for descriptions of AIS, IDLE, and QRSS signals.

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

m **Tap Port (TAP):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the Test Access Path (TAP), which is represented by the port that is being used as the Facility Access Digroup (FAD) for this test session. It is identical to the FAD.

# REPT DISC TACC

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DISC TACC
/* TAP: E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"m:n,o,p,q,r,s,t,u"
```

## Output Parameters (Continued)

---

**n E-End Port (E-PORT):**

(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the E-End port for the test session.

**o F-End Port (F-PORT):**

(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the F-End port for the test session. If the E-End Input Port is IDLE, this parameter is omitted.

**p E-End Input Health (E-SIG):**

{ DRVN, INC, NDRVN, INIT }

Specifies the input signal health of the port that supports the E-End Input Port.

- **DRVN** (driven) - indicates that a valid signal is expected at the port, being monitored for incoming failures, and there are currently no incoming failures detected.
- **INC** - is the same as DRVN when there are incoming failures detected.
- **NDRVN** (not driven) - indicates that no valid signal is expected at the Port, and the port is not monitored for failures. If the Port is formatted, Performance Monitoring data is accumulated.
- **INIT** - is used for an initialized (unset) value (that is, the port is considered NDRVN until a valid signal is detected, at which time it becomes DRVN).

**q F-End Input Health (F-SIG):**

{ DRVN, INC, NDRVN, INIT }

Specifies the input signal health of the port that supports the F-End Input Port. The parameter values have the same meaning as those given for the **E-SIG** parameter (p). If the F-End port is omitted, this parameter is omitted.

**r E-End Output Mode (E-OMODE):**

(T1): { NORM, TERM, AIS, QRSS }  
(EC1|VT1): { NORM, TERM, AIS }

Specifies the output Mode of the E-End.

- **NORM** - indicates cross-connected data for a mapped output port, or IDLE for an idle output port.
- **TERM** - is the IDLE signal (terminated).
- **AIS** - is the Alarm Indication Signal (formerly called a *blue signal*).
- **QRSS** - is a quasi-random signal (only for DS1 Ports).

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DISC TACC
/* TAP: E-PORT, F-PORT, E-SIG, F-SIG, E-OMODE, F-OMODE, EF-STAT, FE-STAT */
"m:n, o, p, q, r, s, t, u"
```

## Output Parameters (Continued)

---

- s F-End Output Mode (F-OMODE):**  
(T1): { NORM, TERM, AIS, QRSS }  
(EC1IVT1): { NORM, TERM, AIS }
- Specifies the output Mode of the F-End. The parameter values have the same meaning as those given for the **E-OMODE** parameter (r).
- t E to F Special Connection Status (EF-STAT):**  
{ RDLD }
- Specifies any special status associated with the E-to-F connection that impacts test access. This parameter is omitted if there is no special status associated with the E-to-F connection, or if there is no F-End.
- **RDLD** - indicates that the E to F connection is red-lined.
- u F to E Special Connection Status (FE-STAT):**  
{ RDLD, EFONLY }
- Specifies any special status associated with the F-to-E connection that impacts test access. This parameter is omitted if there is no special status associated with the F-to-E connection, or if there is no F-End.
- **RDLD** - indicates that the F to E connection is red-lined.
  - **EFONLY** - indicates that there is no F-to-E connection, only an E-to-F connection.

# REPT DLTCRS {STS1|T1|VT1}

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DLTCRS {STS1|T1|VT1}
/* FROM,TO:CCT */
"b,c:d"
.
.
.
"b,c:d"
```

;

**Command Name:** Report Delete Cross Connect {STS1|T1|VT1}

**Command Category:** Maintenance

## Purpose

---

This message reports secondary connections which have been permanently disconnected due to protection/unprotection activity.

**Notes:** Secondary connections which can be permanently dropped due to protection/unprotection activity include any connections not set up with an **ENT-CRS-**{STS1|T1|VT1} command, with the following exceptions:

- Terminal loopbacks on idle ports.
- LOOPE, MONE, and SPLTE test access connections when the E-end is idle.

## Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **FROM Port (FROM):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the FROM port of the dropped secondary connection.

c **TO Port (TO):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the TO port of the dropped secondary connection.

### Output Format

---

```
TID YY-MM-DD HH:MM:SS  
A a REPT DLTCRS {STS1|T1|VT1}  
/* FROM,TO:CCT */  
"b,c:d"
```

### Output Parameters (Continued)

---

d **Cross-Connect Type (CCT):**  
{ 2BDCST, LPBK, TA }

Specifies the type of secondary connection dropped.

- **2BDCST** - specifies a 1x2 broadcast connection.
- **LPBK** - specifies a loopback connection.
- **TA** - specifies a test access connection.

# REPT DROPCRS {STS1|T1|VT1}

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT DROPCRS {STS1|T1|VT1}
/* FROM,TO:CCT */
"b,c:d"
.
.
.
"b,c:d"
;
```

**Command Name:** Report Drop Cross Connect {STS1|T1|VT1}  
**Command Category:** Maintenance

## Purpose

---

This message reports connections which have been temporarily dropped due to protection/unprotection activity on the frame.

**Notes:** When any cross-connection (whether broadcast or any other type) is dropped, the REPT DROPCRS {EC1|T1|VT1} message displays the cross-connect type following a certain hierarchy which is PM, TA, LPBK, ONEWAY, 2BDCST (in that order). Thus, according to this hierarchy, a broadcast connection with loopback on it is reported as LPBK.

## Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **FROM Port (FROM):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the FROM port of the dropped connection.

c **TO Port (TO):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the TO port of the dropped connection.

### Output Format

---

```
TID YY-MM-DD HH:MM:SS  
A a REPT DROPCRS {STS1|T1|VT1}  
/* FROM,TO:CCT */  
"b,c:d"
```

### Output Parameters (Continued)

---

d **Cross-Connect Type (CCT):**  
{ 2BDCST, LPBK, TA, 1WAY }

Specifies the type of connection dropped.

- **2BDCST** - specifies a 1x2 broadcast connection
- **LPBK** - specifies a loopback connection.
- **TA** - specifies a test access connection.
- **1WAY** - specifies a one-way connection.

# REPT EVT {EC1|T1|T3|VT1}

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EVT {EC1|T1|T3|VT1}
/* LOC:CTYPE,CONDEFF,,,LOCN,,MONVAL,THLEV,TMPER */
"b:c,d,,,e,,f,g,h"
.
.
.
"b:c,d,,,e,,f,g,h"
;
```

**Command Name:** Report Event {EC1|T1|T3|VT1}

**Command Category:** Maintenance

## Purpose

---

This message reports:

- Performance Monitoring Threshold Crossing Alert (TCA) for an STS-1 signal, a T1 signal (a DS1 on a DS1, DS3, or STS1 Interface Module), a T3 signal (a DS3 on a DS3 Interface Module), or a VT1.5 signal (a VT1.5 level signal on an STS1 Interface Module). In addition, this message for T1 signals reports that an automatic Camp-on attempt failed due to unavailability of automatic Camp-on Ports or reports that a Camp-on attempt failed due to internal switch network blocking.
- Occurrences of non-alarm conditions for inhibit/allow loopback operations associated with an STS-1 signal, a T1 signal (a DS1 on a DS1, DS3, or STS1 Interface Module), a T3 signal (a DS3 on a DS3 Interface Module), or a VT1.5 signal (a VT1.5 level signal on an STS1 Interface Module).
- Far-end non-alarm conditions.

**Notes:** When the event reported by this message is a threshold crossing event, the CTYPE parameter (c) reflects this using the format *T-x*, where *x* is the monitored parameter whose threshold has been crossed.

## Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**

{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **Port (PORT):**

(EC1): EC-1 Port: { {1-32}-{1-15} }

(T1): DS1 Port: { {1-32}-{1-31}-{1-28}, DS1IF-{1-31}-{1A-8B},  
MUX-{1-32}-{1-31} }

(T3): DS3 Port: { {1-32}-{1-31}, MUX-{1-32}-{1-31} }

(VT1): VT1.5 Port { {1-32}-{1-15}-{1-28}, VT1GRP-{1-32}-{1-15}, UNIT-{1-32} }

Specifies the port associated with the event.

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EVT {EC1|T1|T3|VT1}
/* LOC:CTYPE,CONDEFF,,,LOCN,,MONVAL,THLEV,TMPER */
"b:c,d,,,e,,f,g,h"
```

## Output Parameters (Continued)

---

- c        **Condition Type (CTYPE):**  
          { <1-16 LEGAL CHARACTERS> }
- Specifies the type of event indication. A list of condition types, along with their definitions, is given in the **Condition Types** appendix.
- d        **Condition Effect (CONDEFF):**  
          { SC, TC, CL }
- Specifies the effect of event condition. For a threshold crossing event, this parameter is TC (for performance monitoring).
- (T1):** TC is used for reports of received DS1 loopback operations from the far-end, when the MUX2 circuit pack is inhibited from responding to the loopback operations.
- (T3):** TC is used for reports of received DS3 loopback operations from the far-end when the MUX2 circuit pack is inhibited from responding to the loopback operations.
- **SC** - indicates the event condition is a Standing Condition.
  - **TC** - indicates the event condition is a Transient Condition.
  - **CL** - indicates the event condition has cleared and is used to clear an SC event condition.
- e        **Location (LOCN):**  
          **(EC1|T1|T3):** { NEND, FEND }  
          **(VT1):** { NEND }
- Specifies location of the event.
- **NEND** - indicates a near-end event.
  - **FEND** - indicates a far-end event.
- f        **Monitored Value (MONVAL):**  
          { 0-4294967295 }
- Specifies the measured value of a monitored parameter. This value is provided if this event is reported as a result of exceeding the threshold level (see the **Monitored Parameters** appendix). This parameter is omitted when the CTYPE parameter (c) indicates a loopback condition or:
- **(T1):** a far-end DS1 facility failure condition.
  - **(T3):** a far-end DS3 facility failure condition.

## REPT EVT {EC1IT1T3IVT1}

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EVT {EC1|T1|T3|VT1}
/* LOC:CTYPE,CONDEFF,,,LOCN,,MONVAL,THLEV,TMPER */
"b:c,d,,,e,,f,g,h"
```

### Output Parameters (Continued)

---

g **Threshold Level (THLEV):**  
(EC1): { 0-4479000 }  
(T1): { 0-134217728 }  
(T3): { 0-811987200 }  
(VT1): { 0-1048575 }

Specifies the threshold level for the monitored parameter (see the **Monitored Parameters** appendix). This parameter is omitted when the CTYPE parameter (c) indicates a loopback condition or:

- (T1): a far-end DS1 facility failure condition.
- (T3): a far-end DS3 facility failure condition.

h **Time Period (TMPER):**  
(T1IT3): { 15-MIN, 1-HR, 1-DAY }  
(EC1IVT1): { 15-MIN, 1-DAY }

Specifies the accumulated time period for the performance monitoring information. This parameter is omitted when the CTYPE parameter (c) indicates a loopback condition or:

- (T1): a far-end DS1 facility failure condition.
- (T3): a far-end DS3 facility failure condition.

## REPT EXCPTN SYS

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EXCPTN SYS
/* LOC:CTYPE,CONDESCR (MULTI-LINE), */
/* EIDDET, */
/* MEASURED (MULTI-LINE) */
"b:c,\"d\",
e,
\"f\"
[ /* PLEASE RECORD THE INFORMATION ABOVE AND */]
[ /* IMMEDIATELY CONTACT AT&T TECHNICAL SUPPORT. */]
;
```

**Command Name:** Report Exception System  
**Command Category:** Maintenance

### Purpose

---

This message reports detailed information about events which are indicative of the system maintenance condition, but which can not cause alarms to be generated.

**Notes:** Four uses have been identified for this message:

- To report software-detected exceptions.
- To report a system processor exception condition situation.
- To report internal hardware exceptions.
- To report hardware faults detected by software while processing a previous fault.
- To report a system reset exception condition.

On occasion, a processor can determine that its situation is so badly corrupted that it must stop all processing. When this occurs a REPT EXCPTN SYS message is issued and the system is *parked*. Examples are:

- The processor tried to access nonexistent memory.
- The software detected a system problem from which it can not recover.

If the ECI circuit pack or the main controller (MC) generates one of these messages, the REPT EXCPTN SYS message includes instructions to record the information that was printed out in the message, to call the AT&T Technical Support, and to reset the frame. If a unit controller (UC) generates one of these messages, the UC causing the REPT EXCPTN SYS message is removed from service. The UC can be restored by using the **RST-EQPT** command.

The free-format text field is also used to display boot error messages when the CTYPE parameter (c) is BOOTMSG.

For procedural information to clear this message, refer to the section titled **REPT EXCPTN SYS Message** in Chapter 13 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

# REPT EXCPTN SYS

## Output Parameters

---

- a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

- b **Equipment Location (LOC):**  
{ CPU-{0,1}, ECI-{1,2}, UC-{1-32}, SSC-{0,1}, PRI, SEC, PRI OR SEC }

Specifies the type of equipment involved in the reporting.

- c **Condition Type (CTYPE):**  
{ <1-16 LEGAL CHARACTERS> }

Specifies the type of indications associated with the specified equipment entity. The format and content of other parameters in this message depend upon the value of this parameter, as discussed in the following parameters. For an explanation of condition types, see the **Condition Types** appendix. There are five condition types associated with this particular message:

- **PROGFLT** - Specifies a software-detected program fault.
- **CONTR** - Specifies a processor exception condition.
- **SS ERROR** - Specifies a backup error has occurred.
- **INT** - Specifies an internal hardware fault or failure as indicated by the occurrence of a hardware interrupt.
- **BOOTMSG** - Specifies an exception condition occurred during system reset.

- d **Detailed Description of the Reporting Condition (CONDDESCR):**  
{ <see below> }

Specifies a detailed description of the reporting condition. This parameter is enclosed in escaped quotes ("), and appears in the following format:

```
ECASE=g, RC=h, SEQ=i, PROC=j, FILE=k, DP=l
```

The sub-parameters ECASE (g), RC (h), SEQ (i), PROC (j), FILE (k), and DP (l) are described in separate parameter listings.

- e **Detailed Equipment Location (EIDDET):**  
{ MC, CPU-{0,1}, UI, MTC-{0,1}, SSC-{0,1}, ECI-{1,2}, TODC, PRI-{1,2}, SEC, SCI-{1,2}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, UC-{1-32}, DS3PM-{1-32}, CLKDR-{1-32}-{1-4}, MUX-{1-32}-{1-31}, MUXP-{1-32}, MUXPS-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B}, DS1IP-{1-32}-{PA,PB}, DS1RY-{1-32}-{1-4}, PWRA-{1-4}, PWRF-{1,2}, PWRG-{1,2}, PWRE-{1-32}-{1-2}, POWERE-SW-{1,2}, SMUX-{1-32}-{1-15}, SMUXP-{1-32} }

Specifies supplemental information as to the location of the detected event. The identified equipment has been implicated by the equipment specified in the LOC parameter (b) as being the cause of the event, or of generating an interrupt. This parameter is omitted when the CTYPE parameter (c) is SS ERROR, PROGFLT, or CONTR (for an explanation of Condition Types, see the **Condition Types** appendix).

The value TODC is a special value that is sometimes used as an equipment location (for example, in this message) and is also used as a condition type (for example, in the REPT ALM EQPT message).

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EXCPTN SYS
/* LOC:CTYPE,CONDDESCR (MULTI-LINE), */
/* EIDDET, */
/* MEASURED (MULTI-LINE) */
"b:c,\"d\",
e,
\"f\""
```

## Output Parameters (Continued)

---

f **Measured Data (MEASURED):**  
{ <0-512 bytes of hexadecimal data, see below > }

Specifies measured data associated with the event. The parameter is enclosed in escaped quotes (\"). Three types of data can be printed (the types can not be mixed on the same line):

- **long** - 4 bytes / 8 hex characters each. Up to 6 **longs** can appear on a line as shown (one full line is shown for illustrative purposes):

```
xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx xxxxxxxx
```

- **short** - 2 bytes / 4 hex characters each. Up to 12 **shorts** can appear on a line as shown (one full line is shown for illustrative purposes):

```
xxxx xxxx
```

- **char** - 1 byte / 2 hex characters each. Up to 24 **chars** can appear on a line as shown (one full line is shown for illustrative purposes):

```
xx xx
```

# REPT EXCPTN SYS

## Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EXCPTN SYS
/* LOC:CTYPE,CONDDESCR (MULTI-LINE), */
/* EIDDET, */
/* MEASURED (MULTI-LINE) */
"b:c,\"d\",
e,
\"f\""
```

## Output Parameters (Continued)

---

g **Type of Event (ECASE):**  
{ <1-16 LEGAL CHARACTERS> }

Specifies the type of event. Possible values are:

E1010	E1111	EABORT	EADDR
EAIS	EBDBAD	EBDGOOD	EBDINSERT
EBDREMOVE	EBLNKBD	EBOOTPRT	EBUS
EBUSPRTY	ECCNPOWER	ECCNPWRM	ECHKNODE
ECHKPT	ECHKUI	ECI	ECLKBAD
ECLKGOOD	ECOMMFAIL	ECONT	ECONTINUE
EDBACCESS	EDBJOURNAL	EDBLOCK	EDGN_FAIL
EDGN_PASS	EDISK	EDISK1	EDISK2
EDISKORTAPE	EDIVZERO	EDSACCESS	EDSLOCK
EENDFLUSH	EFANBANK	EFLUSH	EFMT
EINFO	EINSTR	ELAN	ELEDCHECK
ELEDTEST	ELEDTIME	ELED_OFF	ELED_ON
ELOCKED	EMATEINT	EMC	EMCCOND
EMCCORE	EMCOOS	EMCPower	EMP
EMPERE	EMTC	EMX	EONLINE_DROP
EONLINE_WAR	EPARK	EPRIV	EPWRTIME
ERAMPRTY	ESCI	ESIGCHG	ESIGCLEAR
ESIGFAIL	ESSC	ESWCOORD	ESWCTR
ESWIO	ESWPOWER	ETAPE	ETODC
ETRAPV	EUC	EUCPOWER	EUI
EUNKNCPU	EUNKNOWN	EUNKNTST	EUNSURE
EUUP	EVFILEIO	EVOTHER	EVRCV
EVSEND	EXMITMSG		

h **Return Code (RC):**  
{ <10 DECIMAL DIGITS> }

Specifies the return code of the software function (if any) that was called when the event occurred (can be a negative number).

i **Sequence (SEQ):**  
{ <8 HEXADECIMAL DIGITS> }

Specifies the internal time sequence of the event.

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT EXCPTN SYS
/* LOC:CTYPE,CONDDESCR (MULTI-LINE), */
/* EIDDET, */
/* MEASURED (MULTI-LINE) */
"b:c,\"d\",
e,
\"f\" "
```

### Output Parameters (Continued)

---

- j**        **Process ID (PROC):**  
          { <1-16 LEGAL CHARACTERS> }
- Specifies the name of the system process running when the event occurred.
- k**        **File Name (FILE):**  
          { <0-16 LEGAL CHARACTERS> }
- Specifies the name of the file containing the software that generated the event. For some condition types there can not be a value for this parameter.
- l**        **Decision Point (DP):**  
          { <1-5 DECIMAL DIGITS> }
- Specifies a decision point defined in the program to further specify what was occurring in the system when the event occurred.

# REPT FAN FILTER

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT FAN FILTER
/* 3 MONTH FAN FILTER REPLACEMENT REQUIRED. */
/* REFER TO DACS IV-2000 OPERATION AND MAINTENANCE MANUAL */
/* FOR SERVICE PROCEDURE. */
```

;

**Command Name:** Report Fan Filter  
**Command Category:** Maintenance

## Purpose

---

This message is used by the system to notify you that periodic maintenance is required on the switch bay fan assembly air filter.

**Notes:** When air filter replacement is required, the system issues a series of REPT FAN FILTER messages as notification. These messages are repeated at one-day intervals until they are acknowledged by an **ENT-FAN-FILTER** command. Issuing the **ENT-FAN-FILTER** command terminates the issuance of the REPT FAN FILTER messages and sets the next date of notification for three months (nominally) from the current date. For information on replacing the fan filter, refer to the section titled **Changing the Fan Filter** in Chapter 3 of the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701).

If the REPT FAN FILTER 90-day reminder is received, it refers only to the fan assembly in the switch bay, and only that switch bay fan filter needs to be replaced.

## Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter, which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

## REPT LOCL IN

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT LOCL IN
/* LOC,VIRT_CIR */
"b,c"
/* <Echo of Input Command[;] Input Ack> */
.
.
.
"b,c"
/* <Echo of Input Command[;] Input Ack> */
;
```

**Command Name:** Report Local Input  
**Command Category:** Maintenance

### Purpose

---

This message reports the contents of input commands from other links located at the network element (or frame).

**Notes:** Only a user having a UCFC/UCAL value of S5 can receive REPT LOCL IN messages.

Locally input commands which are echoed by this message include:

- commands which are submitted successfully to the system (that is, commands which receive an Input Acknowledgment Code of PF)
- commands which are not submitted successfully to the system (for example, commands which receive an Error Input Acknowledgment, ?E, ?X, etc.)
- commands which are partially completed and timed out (that is, commands which receive an Error Input Acknowledgment of ?T).

For input commands which are entered in MENU Dialog Mode unsuccessfully (that is, commands which receive an Error Input Acknowledgment or those which are timed out), each line of input entered is echoed, and input lines are concatenated together with ^M's to indicate carriage returns between lines entered.

The Input Acknowledgment code consists of 2 characters (that is, PF, NA, RL, and NG).

When the message echo feature is activated for a link or virtual circuit, password parameters that are entered via ACT-USER, ED-SECU-PID, and ENT-SECU-PID on that link or virtual circuit is not suppressed.

## REPT LOCL IN

### Output Parameters

---

- a        **Autonomous Sequence Number (ASEQ):**  
          { <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- b        **Link ID (LINKID):**  
          { CILINK- $\{1,2\}$ - $\{1-6\}$  }
- Specifies the CILINK from which input commands are being reported.
- c        **Virtual Circuit (VIRT\_CIR):**  
          {  $\{0-4\}$  }
- Specifies the virtual circuit for X.25 links. For CILINK- $\{1,2\}$ - $\{1-4\}$ , this parameter is set to 0.

## REPT PM {EC1|T1|T3|VT1}

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT PM {EC1|T1|T3|VT1}
/* LOC:MONPARM,MONVAL,VLDTY,LOCN,,TMPER,MONDAT,MONTM */
"b:c,d,e,f,,g,h,i"
.
.
.
"b:c,d,e,f,,g,h,i"
;
```

**Command Name:** Report Performance Monitoring {EC1|T1|T3|VT1}  
**Command Category:** Maintenance

### Purpose

---

This message reports performance monitoring information as scheduled in the `SCHED-PMREPT- {EC1|T1|T3|VT1}` command.

**Notes:** Only user IDs (UIDs) that have been given permission to execute commands within the performance monitoring category (UCFC of PM) receive scheduled autonomous performance monitoring report messages. These messages are `REPT PM T1`, `REPT PM T3`, `REPT PM EC1`, and `REPT PM VT1`.

### Output Parameters

---

- a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every `REPT` message that is generated. This counter wraps around from 999 to 001.
- b **Port (PORT):**  
(EC1): EC-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(T3): DS3 Port: {1-32}-{1-31}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}
- Specifies the port for which performance monitoring is reported.
- c **Monitored Parameter (MONPARM):**  
{ <see below> }
- Specifies the type of monitored parameter whose value is reported. Valid values are given in the **Monitored Parameters** appendix.
- d **Monitored Value (MONVAL):**  
{ 0-4294967295 }
- Specifies the measured value of a monitored parameter. Valid values are given in the **Monitored Parameters** appendix.

## REPT PM {EC1IT1IT3IVT1}

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT PM {EC1|T1|T3|VT1}
/* LOC:MONPARM,MONVAL,VLDTY,LOCN,,TMPER,MONDAT,MONTM */
"b:c,d,e,f,,g,h,i"
```

### Output Parameters (Continued)

---

- e       **Validity (VLDTY):**  
          (EC1IVT1): { COMPL, NA, PRTL, LONG, ADJ }  
          (T1IT3): { COMPL, NA, PRTL }
- Specifies the validity indicator for the monitoring information. An omitted value is same as COMPL and is preferred for output.
- **COMPL** - indicates data provided is accumulated over the entire time period.
  - **NA** - indicates data is not available.
  - **PRTL** - indicates data provided does not cover an entire time period.
  - **LONG** - indicates the interval was longer than normal because of a system clock change.
  - **ADJ** - indicates that the monitored value has been adjusted with the **INIT-REG- {EC1|VT1}** command.
- f       **Location (LOCN):**  
          (EC1IT1IT3): { NEND, FEND }  
          (VT1): { NEND }
- Specifies location of the event.
- **NEND** - indicates a near-end condition.
  - **FEND** - indicates a far-end condition.
- g       **Time Period (TMPER):**  
          (EC1IVT1): { 15-MIN, 1-DAY }  
          (T1IT3): { 15-MIN, 1-HR, 1-DAY }
- Specifies the accumulated time period for the performance monitoring information.  
(T3): For PSET#1 (CB149) data, a value of 1-DAY gives the 96 15-minute rolling total.
- h       **Monitored Date (MONDAT):**  
          { {1-12}-{1-31} }
- Specifies the date of the beginning of the performance monitoring period (specified in the TMPER parameter [g]) as MM-DD, where MM is the month and DD is the day of month.
- i       **Monitored Time (MONTM):**  
          { {0-23}-{0,15,30,45} }
- Specifies the beginning time of day of the performance monitoring period (specified in the TMPER parameter [g]) as HH-MM, where HH is the hour and MM is minutes. If the MONDAT parameter (h) is not omitted, this parameter is omitted. If the TMPER parameter is 1-DAY, this parameter is omitted.
- (EC1IT3IVT1): An omitted value for this parameter defaults to {current hour}-0.

## REPT RMV EQPT

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RMV EQPT
  /* LOC:STATE */
  "b:c"
  .
  .
  .
  "b:c"
;
```

**Command Name:** Report Remove Equipment  
**Command Category:** Maintenance

### Purpose

---

This message reports the autonomous removal of equipment from service.

**Notes:** Most system functions are not allowed when the MC is not in service. Certain functions, however, either can be performed with the MC out of service, or require the MC to be out of service to be performed. These are described in the **State Names** appendix, and in the individual command listing for each function.

Due to the equipment hierarchy, an autonomous removal of a DPLL or TBS3 circuit pack from service results in state transitions of the associated TBS3 or DPLL (respectively) and DS1TX circuit packs and the SYNC mode.

If an attempt is made to restore the MC (**RST-EQPT: :MC: , : :NORM**) and the database on the PRI is empty, the MC is placed in the OOS-MCOND state. Refer to the *DACS IV-2000 (256) Release 4.0 Operations and Maintenance* manual (AT&T 365-340-701) section on **Memory Integrity Defensiveness Capabilities** in Chapter 6.

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **Equipment Location (LOC):**  
{ MC, CC-{0,1}, PRI-{1,2}, ECI-{1,2}, SEC, UC-{1-32}, DS3PM-{1-32},  
CLKDR-{1-32}-{1-4}, MUXPS-{1-32}, DS1RY-{1-32}-{1-4}, SYNC-{0,1},  
DPLL-{0,1}, TB-{0,1}, TX-{0,1} }

Specifies the type of equipment that was removed and its location.

c **Equipment State (STATE):**  
{ <see below> }

Gives the new state of the specified equipment. Valid states for equipment along with their meaning are listed in the **State Names** appendix.

# REPT RMV LINK

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RMV LINK
/* LOC:STATE */
"b:c"
.
.
.
"b:c"
```

i

**Command Name:** Report Remove Link  
**Command Category:** Maintenance

### Purpose

---

This message reports the autonomous removal of an administrative or data link from service.

### Output Parameters

---

- a        **Autonomous Sequence Number (ASEQ):**  
          { <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }
- Specifies the administrative or data link that was removed.
- c        **Equipment State (STATE):**  
          { <see below> }
- Specifies the new state of the specified equipment. Valid states for equipment entities along with their meaning are listed in the **State Names** appendix.

## REPT RST EQPT

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RST EQPT
  /* LOC:STATE */
  "b:c"
  .
  .
  .
  "b:c"
[ /* free-format text */]
;
```

**Command Name:** Report Restore Equipment  
**Command Category:** Maintenance

### Purpose

---

This message reports the autonomous restoration of equipment to service.

**Notes:** Most system functions are not allowed when the MC is not in service. Certain functions, however, either can be performed with the MC out of service, or require the MC to be out of service to be performed. These functions are described in the section titled **Allowable Commands for Various Main Controller States** in Chapter 1, and in the individual command listings.

This message is generated for the PRI-{1,2} when the system is booted from a PRI that was previously marked out-of-service.

For DPLL and TBS3 (TB) hardware failures, this message occurs if the entity is OOS-FLT and manual diagnostics pass, or if the failure is cleared during a boot. In general, however, apart from the cases listed, if a hardware failure occurs and is subsequently repaired for DPLL, TB, SYNC, and DS1TX (TX) entities, the failed entity is not auto-restored.

The optional free-format text field in the output response format is used to display boot status messages. This response message occurs autonomously during boot procedures and may occur multiple times depending upon the number of boot status messages.

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

## REPT RST EQPT

### Output Format

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RST EQPT
/* LOC:STATE */
"b:c"
```

### Output Parameters (Continued)

---

- b       **Equipment Location (LOC):**  
          { MC, CC-{0,1}, PRI-{1,2}, ECI-{1,2}, UC-{1-32}, CLKDR-{1-32}-{1-4},  
          MUXPS-{1-32}, DS1RY-{1-32}-{1-4}, DS3PM-{1-32}, SYNC-{0,1}, DPLL-{0,1},  
          TB-{0,1}, TX-{0,1} }
- Specifies the type of equipment that was restored and its location.
- c       **Equipment State (STATE):**  
          { <see below> }
- Gives the new state of the specified equipment. Valid states for equipment entities along with their meaning are listed in the **State Names** appendix.

## REPT RST LINK

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RST LINK
/* LOC:STATE */
"b:c"
.
.
.
"b:c"
;
```

**Command Name:** Report Restore Link  
**Command Category:** Maintenance

### Purpose

---

This message reports the autonomous restoral of an administrative or data link to service.

### Output Parameters

---

- a        **Autonomous Sequence Number (ASEQ):**  
          { <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.
- b        **Link ID (LINKID):**  
          { CILINK-{1,2}-{1-6} }
- Specifies the administrative or data link that was restored.
- c        **Equipment State (STATE):**  
          { <see below> }
- Specifies the new state of the specified CILINK. Valid states for CILINKs along with their meaning are listed in the **State Names** appendix.

# REPT RSTCRS {STS1|T1|VT1}

## OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT RSTCRS {STS1|T1|VT1}
/* FROM,TO:CCT */
"b,c:d"
.
.
.
"b,c:d"
;
```

**Command Name:** Report Restore Cross Connect {STS1|T1|VT1}  
**Command Category:** Maintenance

## Purpose

---

This message reports the restoration of connections which had been temporarily dropped due to protection/unprotection activity on the frame.

## Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**  
{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **FROM Port (FROM):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the FROM port of the restored connection.

c **TO Port (TO):**  
(STS1): STS-1 Port: {1-32}-{1-15}  
(T1): DS1 Port: {1-32}-{1-31}-{1-28}  
(VT1): VT1.5 Port: {1-32}-{1-15}-{1-28}

Specifies the TO port of the restored connection.

d **Cross-Connect Type (CCT):**  
{ 2BDCST, LPBK, TA, 1WAY }

Specifies the type of connection restored.

- **2BDCST** - specifies a 1x2 broadcast connection.
- **LPBK** - specifies a loopback connection.
- **TA** - specifies a test access connection.
- **1WAY** - specifies a one-way connection.

## REPT SW

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT SW
  /* ACTIVE, STBY/OOS, SMODE */
  "b, c, d"
  .
  .
  .
  "b, c, d"
;
```

**Command Name:** Report Switch  
**Command Category:** Maintenance

### Purpose

---

This command reports either:

- The autonomous switch of a circuit pack to protection (auto-removal).
- The autonomous switch of a circuit pack to working (auto-restoration).
- The autonomous switch of a circuit pack to its mate (duplex switching).
- The autonomous switch of the synchronization mode.

**Notes:** For the synchronizer (SYNCN) equipment, this message reports an autonomous change in timing mode. There is no switch occurring between active and standby equipment, therefore SYNCN appears in both the ACTIVE (b) and STBY/OOS (c) parameters and refers to the same equipment location.

- For a DS1TX (TX) failure on the active synchronizer side, if the standby CLKGN is failed, the active synchronizer goes into holdover mode and the following message is generated:

```
A a REPT SW
  /* ACTIVE, STBY/OOS, SMODE */
  "SYNCN, SYNCN, HLDOVR"
;
```

- For a TBS3 (TB) or DPLL failure on the active synchronizer side, if the standby CLKGN is failed, the system switches to the standby synchronizer side and the following message is generated:

```
A a REPT SW
  /* ACTIVE, STBY/OOS, SMODE */
  "SYNC-0(or 1), SYNC-1(or 0),"
;
```

In this case, the newly active DPLL crosscouples to the CLKGN on the other side to provide the timing signal.

## REPT SW

- For a CLKGN failure on the active synchronizer side, if the standby DPLL or TB is failed, the system switches to the standby CLKGN and the following message is generated:

```
A a REPT SW
/* ACTIVE, STBY/OOS, SMODE */
"CLKGN-0(or 1), CLKGN-1(or 0), "
;
```

In this case, the newly active CLKGN cross-couples to the DPLL on the other side to provide the timing signal.

### Output Parameters

---

a **Autonomous Sequence Number (ASEQ):**

{ <3 DIGIT DECIMAL NUMBER> }

Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every REPT message that is generated. This counter wraps around from 999 to 001.

b **Active Equipment Location (ACTIVE):**

{ CC-{0,1}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, MUX-{1-32}-{1-31},  
MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
DS1IP-{1-32}-{PA,PB}, SYNC-{0,1}, SYNCN, SMUX-{1-32}-{1-15},  
SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1} }

Specifies the type and location of the circuit pack that has been put into the active (ACT) state by the switch.

The state names associated with this parameter and the STBY/OOS parameter (c) are slightly different than the ones shown when SWIO circuit packs are involved. This is because SWIO circuit packs protect each other in pairs. When a SWIO circuit pack is auto-removed, its mate transitions into a state with the modifier, -COMB, indicating that it is now performing both its own function and the function of the removed circuit pack (a *combined* function). This circuit pack is shown in this parameter. The removed circuit pack transitions to the OOS state, and is shown in the STBY/OOS parameter (c). When a SWIO circuit pack is auto-restored, it transitions to the ACT state, and is shown in this parameter. Its mate circuit pack transitions into a state without the -COMB, indicating that it is no longer performing both its own function and the function of the removed circuit pack. The mate circuit pack is shown in the STBY/OOS parameter (c).

c **Standby/Out of Service Equipment Location (STBY/OOS):**

{ CC-{0,1}, CLKGN-{0,1}, SWCS-{1-32}, SWIO-{1-32}, MUX-{1-32}-{1-31},  
MUXP-{1-32}, SWIF-{1-32}-{1-8,P}, DS1IF-{1-32}-{1A-8B},  
DS1IP-{1-32}-{PA,PB}, SYNC-{0,1}, SYNCN, SMUX-{1-32}-{1-15},  
SMUXP-{1-32}, SYNCPRI-{0,1}, SYNCSEC-{0,1} }

Specifies the type and location of the circuit pack that has been put into the STBY or OOS state by the switch. See the ACTIVE parameter (b) for special information about SWIO circuit packs.

d **Synchronization Mode (SMODE):**

{ FRNG, FST, HLDOVR, NORM }

Specifies the current Synchronization Mode. This parameter is omitted if the ACTIVE parameter (b) is not SYNCN.

## REPT TRMSN T1

### OUTPUT FORMAT

---

```
TID YY-MM-DD HH:MM:SS
A a REPT TRMSN T1
/* DS1PORT:LPBK-STATE,TP,RESULT */
"b:c,d,e"
.
.
"b:c,d,e"
;
```

**Command Name:** Report Transmission T1

**Command Category:** Maintenance

### Purpose

---

This message reports the results of the transmission test initiated by the **TEST-TRMSN-T1** function.

### Output Parameters

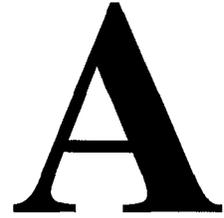
---

- a        **Autonomous Sequence Number (ASEQ):**  
          { <3 DIGIT DECIMAL NUMBER> }
- Tracks the sequence of autonomous messages. The value is a three-digit sequential decimal counter which increments for every **REPT** message that is generated. This counter wraps around from 999 to 001.
- b        **DS1 Port (DS1):**  
          { {1-32}-{1-31}-{1-28} }
- Specifies the DS1 Port that is under test.
- c        **Loopback State (LPBK-STATE):**  
          { LPBK1 }
- Specifies if an internal loopback is set up at the DS1 Port tested. If omitted, no loopback is set up, and an external loopback is assumed. This parameter is omitted if the DS1 Port under test is not a DS1 Port.
- d        **Testport DS1 Port (TP):**  
          { {1-32}-{1-8}-{1-28} }
- Specifies the DS1 Port being used to insert and to detect the test signal. This parameter is omitted if the DS1 Port under test is a DS1 Port.
- e        **Result (RESULT):**  
          { PASS, FAIL }
- Indicates the result of the transmission test
- **PASS** - indicates that the signal was detected.
  - **FAIL** - indicates that the signal was not detected.



---

## Acronyms



---

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■ Circuit Pack/Interface Module Names	A-21

## Contents

---

## Acronyms

# A

---

This appendix contains lists of the following groups of acronyms used in this manual:

- Command and Message Names
- Parameter Names
- Error Codes
- State Modifier Names
- Circuit Pack/Interface Module Names

## Command and Message Names

Table A-1 contains the commands and messages along with their definitions.

Table A-1. Commands and Messages

Commands	Definition
ABT-CMD	Abort Command
ACT-ECHO-LINK	Activate Echo Link
ACT-USER	Activate User
ALW-LPBK-EC1	Allow Loopback EC1
ALW-LPBK-T1	Allow Loopback T1
ALW-LPBK-T3	Allow Loopback T3
ALW-LPBK-VT1	Allow Loopback VT1
ALW-MSG-EC1	Allow Message EC1
ALW-MSG-VT1	Allow Message VT1
ALW-PMREPT-EC1	Allow Performance Monitoring Report EC1
ALW-PMREPT-T1	Allow Performance Monitoring Report T1
ALW-PMREPT-T3	Allow Performance Monitoring Report T3
ALW-PMREPT-VT1	Allow Performance Monitoring Report VT1
ALW-SW-EQPT	Allow Switch Equipment
CANC-ECHO-LINK	Cancel Echo Link
CANC-USER	Cancel User
CHG-ACCMD-EC1	Change Access Mode EC1
CHG-ACCMD-T1	Change Access Mode T1
CHG-ACCMD-VT1	Change Access Mode VT1
CHG-TACC-EC1	Change Test Access EC1
CHG-TACC-T1	Change Test Access T1
CHG-TACC-VT1	Change Test Access VT1
CONN-PM-T1	Connect Performance Monitoring T1
CONN-TACC-EC1	Connect Test Access EC1
CONN-TACC-T1	Connect Test Access T1
CONN-TACC-VT1	Connect Test Access VT1
CPY-MEM	Copy Memory
CPY-TH-T1	Copy Threshold T1
DGN-DET-EQPT	Diagnose Detail Equipment
DISC-PM-T1	Disconnect Performance Monitoring T1
DISC-TACC	Disconnect Test Access
DLT-CONF-STS1	Delete Conference STS1
DLT-CONF-T1	Delete Conference T1
DLT-CONF-VT1	Delete Conference VT1
DLT-CRS-STS1	Delete Cross-Connect STS1

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
DLT-CRS-T1	Delete Cross-Connect T1
DLT-CRS-VT1	Delete Cross-Connect VT1
DLT-EQPT	Delete Equipment
DLT-SECU-AUD	Delete Security Audit
DLT-SECU-USER	Delete Security User
ED-DATE	Edit Date
ED-EC1	Edit EC1
ED-EQPT	Edit Equipment
ED-NE	Edit Network Element
ED-PORT	Edit Port
ED-PRMTR-LINK	Edit Parameter Link
ED-SECU-LINK	Edit Security Link
ED-SECU-PID	Edit Security Process ID
ED-SECU-USER	Edit Security User
ED-STATE-EQPT	Edit State Equipment
ED-T1	Edit T1
ED-T3	Edit T3
ED-VT1	Edit VT1
ENT-AUTOCMPN-T1	Enter Automatic Camp-On T1
ENT-CONF-STS1	Enter Conference STS1
ENT-CONF-T1	Enter Conference T1
ENT-CONF-VT1	Enter Conference VT1
ENT-CRS-STS1	Enter Cross-Connection STS1
ENT-CRS-T1	Enter Cross-Connection T1
ENT-CRS-VT1	Enter Cross-Connection VT1
ENT-EQPT	Enter Equipment
ENT-FAN-FILTER	Enter Fan Filter
ENT-ROLL-STS1	Enter Rollover STS1
ENT-ROLL-T1	Enter Rollover T1
ENT-ROLL-VT1	Enter Rollover VT1
ENT-TSTPT-EC1	Enter Testport EC1
ENT-TSTPT-T1	Enter Testport T1
ENT-TSTPT-VT1	Enter Testport VT1
EX-EQPT	Exercise Equipment
INH-LPBK-EC1	Inhibit Loopback EC1
INH-LPBK-T1	Inhibit Loopback T1
INH-LPBK-T3	Inhibit Loopback T3
INH-LPBK-VT1	Inhibit Loopback VT1
INH-MSG-EC1	Inhibit Message EC1
INH-MSG-VT1	Inhibit Message VT1

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
INH-PMREPT-EC1	Inhibit Performance Monitoring Report EC1
INH-PMREPT-T1	Inhibit Performance Monitoring Report T1
INH-PMREPT-T3	Inhibit Performance Monitoring Report T3
INH-PMREPT-VT1	Inhibit Performance Monitoring Report VT1
INH-SW-EQPT	Inhibit Switch Equipment
INIT-REG-EC1	Initialize Register EC1
INIT-REG-T1	Initialize Register T1
INIT-REG-T3	Initialize Register T3
INIT-REG-VT1	Initialize Register VT1
INIT-SYS	Initialize System
LGN-USER	Login User
LGT-USER	Logout User
OPR-ACO-ALL	Operate Alarm Cut Off All
OPR-LPBK-EC1	Operate Loopback EC1
OPR-LPBK-T1	Operate Loopback T1
OPR-LPBK-T3	Operate Loopback T3
OPR-LPBK-VT1	Operate Loopback VT1
REPT ALM COM	Report Alarm Common
REPT ALM EC1	Report Alarm EC1
REPT ALM EQPT	Report Alarm Equipment
REPT ALM LINK	Report Alarm Link
REPT ALM T1	Report Alarm T1
REPT ALM T2	Report Alarm T2
REPT ALM T3	Report Alarm T3
REPT ALM VT1	Report Alarm VT1
REPT BKUP	Report Backup
REPT CMPR MEM	Report Compare Memory
REPT DBCHG	Report Database Change
REPT DGNDET EQPT	Report Diagnose Detail Equipment
REPT DISC TACC	Report Disconnect Test Access
REPT DLTCRS STS1	Report Delete Cross Connection STS1
REPT DLTCRS T1	Report Delete Cross Connection T1
REPT DLTCRS VT1	Report Delete Cross Connection VT1
REPT DROPCRS STS1	Report Drop Cross Connection STS1
REPT DROPCRS T1	Report Drop Cross Connection T1
REPT DROPCRS VT1	Report Drop Cross Connection VT1
REPT EVT EC1	Report Event EC1
REPT EVT T1	Report Event T1
REPT EVT T3	Report Event T3
REPT EVT VT1	Report Event VT1

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
REPT EXCPTN SYS	Report Exception System
REPT FAN FILTER	Report Fan Filter
REPT LOCL IN	Report Local Input
REPT PM EC1	Report Performance Monitoring EC1
REPT PM T1	Report Performance Monitoring T1
REPT PM T3	Report Performance Monitoring T3
REPT PM VT1	Report Performance Monitoring VT1
REPT RMV EQPT	Report Remove Equipment
REPT RMV LINK	Report Remove Link
REPT RST EQPT	Report Restore Equipment
REPT RST LINK	Report Restore Link
REPT RSTCRS STS1	Report Restore Cross Connection STS1
REPT RSTCRS T1	Report Restore Cross Connection T1
REPT RSTCRS VT1	Report Restore Cross Connection VT1
REPT SW	Report Switch
REPT TRMSN T1	Report Transmission T1
RLS-LPBK-EC1	Release Loopback EC1
RLS-LPBK-T1	Release Loopback T1
RLS-LPBK-T3	Release Loopback T3
RLS-LPBK-VT1	Release Loopback VT1
RLS-TSTPT-EC1	Release Testport EC1
RLS-TSTPT-T1	Release Testport T1
RLS-TSTPT-VT1	Release Testport VT1
RMV-EQPT	Remove Equipment
RMV-LINK	Remove Link
RST-EQPT	Restore Equipment
RST-LINK	Restore Link
RTRV-ALM-ALL	Retrieve Alarm All
RTRV-ALM-COM	Retrieve Alarm Common
RTRV-ALM-EC1	Retrieve Alarm EC1
RTRV-ALM-EQPT	Retrieve Alarm Equipment
RTRV-ALM-LINK	Retrieve Alarm Link
RTRV-ALM-T1	Retrieve Alarm T1
RTRV-ALM-T2	Retrieve Alarm T2
RTRV-ALM-T3	Retrieve Alarm T3
RTRV-ALM-VT1	Retrieve Alarm VT1
RTRV-ATTR-EC1	Retrieve Attribute EC1
RTRV-ATTR-EQPT	Retrieve Attribute Equipment
RTRV-ATTR-T1	Retrieve Attribute T1
RTRV-ATTR-T2	Retrieve Attribute T2

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
RTRV-ATTR-T3	Retrieve Attribute T3
RTRV-ATTR-VT1	Retrieve Attribute VT1
RTRV-CMD-STAT	Retrieve Command Status
RTRV-COND-EC1	Retrieve Condition EC1
RTRV-COND-EQPT	Retrieve Condition Equipment
RTRV-COND-LINK	Retrieve Condition Link
RTRV-COND-T1	Retrieve Condition T1
RTRV-COND-T2	Retrieve Condition T2
RTRV-COND-T3	Retrieve Condition T3
RTRV-COND-VT1	Retrieve Condition VT1
RTRV-CONF-STS1	Retrieve Conference STS1
RTRV-CONF-T1	Retrieve Conference T1
RTRV-CONF-VT1	Retrieve Conference VT1
RTRV-CRS	Retrieve Cross-Connect
RTRV-CRS-STS1	Retrieve Cross-Connect STS1
RTRV-CRS-T1	Retrieve Cross-Connect T1
RTRV-CRS-VT1	Retrieve Cross-Connect VT1
RTRV-DROPCRS-STS1	Retrieve Drop Cross-Connect STSV1
RTRV-DROPCRS-T1	Retrieve Drop Cross-Connect T1
RTRV-DROPCRS-VT1	Retrieve Drop Cross-Connect T1
RTRV-EC1	Retrieve EC1
RTRV-ECHO-LINK	Retrieve Echo Link
RTRV-EQPT	Retrieve Equipment
RTRV-HDR	Retrieve Header-
RTRV-LPBK-EC1	Retrieve Loopback EC1
RTRV-LPBK-T1	Retrieve Loopback T1
RTRV-LPBK-T3	Retrieve Loopback T3
RTRV-LPBK-VT1	Retrieve Loopback VT1
RTRV-MSG-EC1	Retrieve Message EC1
RTRV-MSG-VT1	Retrieve Message VT1
RTRV-NE	Retrieve Network Element
RTRV-PATH-STS1	Retrieve Path STS1
RTRV-PATH-T1	Retrieve Path T1
RTRV-PATH-VT1	Retrieve Path VT1
RTRV-PM-EC1	Retrieve Performance Monitoring EC1
RTRV-PM-T1	Retrieve Performance Monitoring T1
RTRV-PM-T3	Retrieve Performance Monitoring T3
RTRV-PM-VT1	Retrieve Performance Monitoring VT1
RTRV-PMCNFGRN-T1	Retrieve Performance Monitoring Configuration T1
RTRV-PMMODE-EC1	Retrieve Performance Monitoring Mode EC1
RTRV-PMMODE-VT1	Retrieve Performance Monitoring Mode VT1

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
RTRV-PMSCHED-EC1	Retrieve Performance Monitoring Schedule EC1
RTRV-PMSCHED-T1	Retrieve Performance Monitoring Schedule T1
RTRV-PMSCHED-T3	Retrieve Performance Monitoring Schedule T3
RTRV-PMSCHED-VT1	Retrieve Performance Monitoring Schedule VT1
RTRV-PORT	Retrieve Port
RTRV-PRMTR-LINK	Retrieve Parameter Link
RTRV-PRMTR-SFTWR	Retrieve Parameter Software
RTRV-SCANTH-NE	Retrieve Scan Threshold Network Element
RTRV-SECU-AUD	Retrieve Security Audit
RTRV-SECU-LINK	Retrieve Security Link
RTRV-SECU-USER	Retrieve Security User
RTRV-STATE-EC1	Retrieve State EC1
RTRV-STATE-EQPT	Retrieve State Equipment
RTRV-STATE-T1	Retrieve State T1
RTRV-STATE-VT1	Retrieve State VT1
RTRV-SYNCR	Retrieve Synchronization
RTRV-SYSID	Retrieve System Identification
RTRV-T1	Retrieve T1
RTRV-T3	Retrieve T3
RTRV-TACC-EC1	Retrieve Test Access EC1
RTRV-TACC-T1	Retrieve Test Access T1
RTRV-TACC-VT1	Retrieve Test Access VT1
RTRV-TH-EC1	Retrieve Threshold EC1
RTRV-TH-NE	Retrieve Threshold Network Element
RTRV-TH-T1	Retrieve Threshold T1
RTRV-TH-T3	Retrieve Threshold T3
RTRV-TH-VT1	Retrieve Threshold VT1
RTRV-VT1	Retrieve VT1
SCHED-PMREPT-EC1	Schedule Performance Monitoring Report EC1
SCHED-PMREPT-T1	Schedule Performance Monitoring Report T1
SCHED-PMREPT-T3	Schedule Performance Monitoring Report T3
SCHED-PMREPT-VT1	Schedule Performance Monitoring Report VT1
SET-ATTR-EC1	Set Attribute EC1
SET-ATTR-EQPT	Set Attribute Equipment
SET-ATTR-T1	Set Attribute T1
SET-ATTR-T3	Set Attribute T3

Table continued on next page.

Table A-1. Commands and Messages (Continued)

Commands	Definition
SET-ATTR-VT1	Set Attribute VT1
SET-SCANTH-NE	Set Scan Threshold Network Element
SET-SID	Set Source ID
SET-TH-EC1	Set Threshold EC1
SET-TH-NE	Set Threshold Network Element
SET-TH-T1	Set Threshold T1
SET-TH-T3	Set Threshold T3
SET-TH-VT1	Set Threshold VT1
STA-SCANPM-T1	Start Scan Performance Monitoring T1
STP-SCANPM-T1	Stop Scan Performance Monitoring T1
SW-DX-EQPT	Switch To Duplex Equipment
SW-TOPROTN-EQPT	Switch To Protection Equipment
SW-TOWKG-EQPT	Switch To Working Equipment
TEST-CABLE	Test Cable
TEST-SW-CONTROL	Test Switch Control
TEST-TRMSN-T1	Test Transmission T1
TEST-UNIT-CABLE	Test Unit Cable

**Parameter Names**

Table A-2 contains the input/output parameter names and their definitions.

Table A-2. Parameter Names

Parameter	Definition
ACCUM	DS3 Accumulation Period
ACTIVE	Active Equipment Location
ACTIVE_REF	Active Reference Equipment Location
ACTSIG	Active Signal Type
ADDTO	Add to DS1 Port
ALMCDE	Alarm Code
ALMDLY	Alarm Delay
ALMTYPE	Alarm Type
ASEQ	Autonomous Sequence Number
ASNPT	Assign Port
AUTORET	Automatic Carriage Return
BAUD	Baud Rate
BER	Bit Error Rate Threshold
BERL	Bit Error Rate Threshold
BERM	Bit Error Rate Metric
BERS	Section Bit Error Rate Threshold
BKUP	Automatic Backup
BKUPALM	Backup Alarm Feature
BMDE	Backup Mode
CABLE	Switch Cable ID
CABLEID	Unit Control Cable ID Cable ID Control Cable ID
CALCK	Calculated Checksum
CCT	Cross-Connect Type
CEQL	Circuit Pack Equalizer
CLBO	Circuit Pack Line Build-Out
CLEI	Common Language Equipment ID Code
CLLI	Common Language Location Identification
CLRDLY	Alarm Clear Delay
CMDCTAG	Command Correlation Tag
CMDSTAT	Command Status
CODE	Code Name
COMMAND	Command
COMMENT	Comment

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
CONDEFF	Condition Effect
CONDGROUP	Condition Group
CONDTYPE	Condition Type
CPLINECDE	Circuit Pack DS1Code Type
CRCERR	Number of Cyclic Redundancy Code 6 Errors
CTAG	Correlation Tag
CTYPE	Condition Type
CURR-F-PORT	Current F-End DS1 Port
DBCHG	Database Change Feature
DBINTEG	Database Integrity
D-BIT	D Bit
D-DS1	Destination DS1 Port
DATA1	First Memory Data
DATA2	Second Memory Data
DATE	Date
DAYWK	Day of Week
DBCHG	Database Change Feature
DMODE	Dialog Mode
DP	Decision Point
DS1	DS1 Port
DS2XRCV	Performance Monitored or Monitored DS1 Port
DS2XTR	DS2X-Receive
DS3	DS3 Port
DS3FORMAT	DS3 Signal Format
DSEQ	Database Change Sequence Number
DTYPE	Data Type
E-END	E-End Port
E-OMODE	E-End Output Mode
E-PORT	E-End DS1 Port
E-SIG	E-End Input Health
EC1	EC1 Port
EC1MAP	EC1 Format
	Provisioned EC1 Format
ECASE	Type of Event
ECHO	Message Echo
ECHO_STAT	Message Echo Status
EF-STAT	E to F Special Connection Status
EIDDET	Detailed Equipment Location
EQL	Equalizer
EQPWR	Equipment Power

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
EQTYPE	Equipment Type
ERRCDE	Error Code
EXPECTED	Expected Diagnostic Data
F-OMODE	F-End Output Mode
F-PORT	F-End DS1 Port
F-SIG	F-End Input Health
FAILTHRES	Failure Threshold
FAILTYPE	Failure Type
FE-STAT	F to E Special Connection Status Far-End notification
FENDNTE	Far-End Notification
FIC	Frame Identification Code
FILE	File Name
FLOW	Flow Control
FMT	DS1 Signal Format
FNCT	Function
FOMODE	FROM Output Mode
FORMAT	Format
FRDS1OUT	FROM DS1 Output Port
FROM	FROM Equipment Location FROM Memory Type FROM Port
GEN	Generator Number
GENNUM	Generator Number
HEADCK	Header Checksum
IDBLK	ID Block
IDLE	DS3 Idle Signal
IN-STATE	(DS1 EC1 VT1) Input Port State
IN	Input Hardware Port
INACTV	Inactivity
INCL	Inclusive
INH	Report Inhibited
INIT	Initialization Level
INPUT_CMD	Input Command
INTEGCK	Integrity Check
INTRVL	Interval Lock-Out
INVL	Report Interval
ISTAT	Input Status
ISTATE	Input Port State

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
ITER	Iteration
K	Link Window Size K
LASSO LBO LCKD-OUT LGN	Link Association Line Build-Out Locked-Out User ID Login User ID
LINECDE  LINKID LINKNUM LOC1 LOC2 LOC   LOCN LPBK-STATE LPBKCON LSTATE	DS1 Code Type Provisioned DS1 Code Type Link ID Link Number First Memory Location Second Memory Location Equipment Location Equipment Location/(DS3IDS1IEC1) port Equipment Location/Link ID/ )DS1IDS3IVT1IEC1) Port Input SWIO Location Output Port/Equipment Location Output SWIO Location SWCS Location Scanned Equipment Location Location Loopback State Loopback Control DS3 Loopback State
MANPROT MCLOC MEASURED MEDVALD MEM1 MEM2 MEMCLASS MEMTYPE MODE MONDAT MONLEV MONPARM MONPORT	Manual Protection ID MC Equipment Location Measured Diagnostic Data Media Validation First Memory Type Second Memory Type Memory Class Memory Type Mode Monitored Date Monitored Level Monitored Parameter Monitored DS1 Port Performance Monitored DS1 Port

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
MONTM MONVAL MTYPE MULTADD	Monitored Time Monitored Value Performance Monitoring Mode Type DS3 Multipoint Address
N2 NESIZE NETYPE NEWPSWD NEWSTATE	Counter N2 Network Element Switch Size Network Element Type New Password New Equipment State
NEWTID NEWUID NTFCNCDE NUMBER NUMINVL NUMSW	New Target ID New User ID Notification Code Number Lock_Out Number of Intervals Autolock Number of Switches
OLDPSWD OLDUID OMODE  OSREST OSTATE OUT OUT-STATE	Old Password Old User ID Output Mode TO Output Mode Operational State Restoration Mode DS1 Output Port State Output Hardware Port (DS1IEC1IVT1) Output Port State
P PATCH# PCODE PEQL PHASES  PLBO PMSTATE PMTYE POLL PORT  PORT-STATE PROC PROTLOC PSWD	Packet Size Patch Number Provisioned Code Name Provisioned Equalizer Actual/Failed Diagnostic Phases Failed Diagnostic Phases Provisioned Line Build-Out Performance Monitoring State DS3 Performance Monitoring Type Poll Timing Monitored DS1 Port Performance Monitoring DS1 Port TAP Input and Output Port State Process ID Protection Equipment Location Password

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
PTYPE	Protocol Type
R1_IN	In R1 Switch Tributary
R20	Counter R20
R22	Counter R22
R23	Counter R23
R25	Counter R25
RC	Return Code
RCVEC1MAP	Received EC1 Format
RCVERR	Receive Error
RCVTRC	Receive Path Trace
RCVVTMAP	Received VT1 Format
RDLD	Red Lined
REFERENCE_#	Reference Number
REPTDAT	Report Date
REPTMODE	Report Mode (Fan Filter)
REPTSTART	Report Starting Time
REPTTM	Report Time
RESULT	Result
RESULT1	First Result
RESULT2	Second Result
RESULT3	Third Result
RESULT4	Fourth Result
RLSTM	Remote Multiplex Communications
RMTMUXC	Autolock Release Time
ROLL	Roll Type
S-DS1	Source DS1 Port
SCREEN	Message Screening
SEL-PHASES	Selected Diagnostic Phases
SEQ	Sequence
SHACCUM	Short Accumulation Period
SID	Source ID
SIGTYPE	Signal Type
SMODE	Synchronization Mode
SOAKCLR	SONET Condition Clear Soak Time
SOAKON	SONET Condition Onset Soak Time
SRVEFF	Service Affecting
SST	Special Service Type
ST-QUAL	State Qualifier

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
STATE	DS1 Performance Monitoring Port State Equipment State Location State
STATUS	Status
STBY/OOS	Standby/Out of Service Equipment Locatio
STS1	STS-1 Port
SWDIR	Switch Direction
SWID	Software Identification System Release
SWINTVL	Autolock Switching Interval
SWMODE	Switch Mode
SYNCPRI	Primary Timing Reference
SYNCSEC	Secondary Timing Reference
SYSTYPE	System Type
T1	Timer T1
T1_OUT	Out T1 Switch Tributary
T20	Timer T20
T22	Timer T22
T23	Timer T23
T25	Timer T25
T26	Timer T26
T3	Timer T3
TAP	Tap Port
TCASTAT	Threshold Crossing Alert Message Status
TDS1IN	TO DS1 Input Port
THLEV	Threshold Level
TID	Target ID
TIME	Time
TLICODE	TLI Port Line Code
TLIFORMAT	TLI Port Framing Format
TLIP1FF	TLI Port 1 Framing Format
TLIP1LC	TLI Port 1 Line Code
TLIP1REF	TLI Port 1 Timing Reference
TLI2FF	TLI Port 2 Framing Format
TLIP2LC	TLI Port 2 Line Code
TLIP2REF	TLI Port 2 Timing Reference
TLMTRY	Telemetry Set

Table continued on next page.

Table A-2. Parameter Names (Continued)

Parameter	Definition
TM	Time Lock_Out
TMDAY	Time of Day
TMOFST	Time Offset
TMPER	Time Period
TO	TO Equipment Location TO Memory Type TO Port TO Output Mode
TOMODE	TO Output Mode
TP	Testport Port
TRC	Transmit Path Trace
TRIB	DS2 Tributary
TROUBLE	Trouble List
TRREST	Timing Reference Restoration Mode
TSRLOC	Test Signal Receiver DS1 Port
TSTMDE	Test Mode
TX	Type of Cross-Connection
TYPE	Type
UCFC/UCAL	User Community Functional Category/ User Community Authorization Level
UCPL	User Community Priority Level
UID	User ID
UNIT	Unit
UTYPE	Unit Type
VIRT_CIR	Virtual Circuit
VLDTY	Validity
VT1	VT1.5 Port
VTMAP	Provisioned VT1 Format VT1 Format
W	Network Window Size W
X1_IN	In X1 Switch Tributary
X1_OUT	Out X1 Switch Tributary
XBITRCV	DS3X Receive
XPOL	DS3X Transmit
Y1_IN	In Y1 Switch Tributary
Y1_OUT	Out Y1 Switch Tributary

**Error Codes**

Table A-3 list the error codes with their definitions.

Table A-3. Error Code

Error Code	Definition
EHNS	Equipment hierarchy not satisfied
ENEQ	Equipage, not equipped
ENMB	Equipage, not a multipoint bridge
ENMD	Equipage, no media present
ENRD	Equipage, not red-lined
ENRE	Equipage, not recognized equipage
ENRI	Equipage, not equipped for retrieving specified information
ERLC	Equipage, a red-lined circuit
IBEX	Input, extra block
IBNC	Input, block not consistent
IDMS	Input, data missing
IDNC	Input, data not consistent
IDNV	Input, data not valid
IDRG	Input, data, range error
IICT	Input, invalid CTAG
IISP	Input, invalid syntax or punctuation
IITA	Input, invalid target identifier (TID)
ISCH	Input, syntax character error in input command
ISPC	Input, syntax punctuation error in input command
MRAS	Maximum reports already scheduled
PICC	Privilege, illegal command code
PIOC	Privilege, illegal operations channel
PIPW	Privilege, illegal password/user id code
PIRC	Privilege, illegal record control
PIUI	Privilege, illegal user identity
PKOR	Pack out of range
PLNA	Privilege, login not active

Table continued on next page.

Table A-3. Error Code (Continued)

Error Code	Definition
SAAL	Status, already allowed
SAAS	Status, already assigned
SABT	Status, execution stopped abruptly before completion
SACC	Status, already cross-connected
SADC	Status, already disconnected
SAIN	Status, already inhibited
SAIS	Status, already in-service
SAOP	Status, already operated
SAOS	Status, already out-of-service
SAPS	Status, already in protection state
SAPV	Status, already provisioned
SARB	Status, all resources busy
SARL	Status, already released
SASW	Status, already in switched state
SAWS	Status, already in working state
SCAT	Status, circuit is already connected to another TAP
SCCF	Status, SEC cartridge checksum failure
SDNC	Status, data in input message is not consistent with the provisioned object entity
SEIP	Status, entity is protected
SMVF	Status, media validation failed
SNAS	Status, not assigned
SNCC	Status, not cross-connected
SNDA	Status, no data available
SNDB	Status, no database on the device
SNIS	Status, not in-service
SNML	Status, no monitor line established
SNOS	Status, not out-of-service
SNPV	Status, not provisioned
SNST	Status, execution could not be started
SNVS	Status, not in valid state
SOSF	Status, out-of-service, failed
SOST	Status, out-of-service testing
SPFA	Status, protection entity failed
SRIP	Status, request inconsistent with provisioning
SROF	Status, requested operation failed
SSTP	Status, execution stopped gracefully before completion
SWFA	Status, working entity failed

**State Modifier Names**

Table A-4 contains the state modifiers and their definitions.

Table A-4. State Modifier Names

State Modifier	Definition
ABS ACT AUTOCMPN AVAIL	Absent Active Automatic Camp-on Available
BLK	Blank
CB CMPN COMB	CB 149 Counters Camp-on Combined
ERRANAL EQPD	Error Analysis Equipped
FEF FLPBKL FLPBKM FLT FRCD	Family of Equipment Failure DS3 Line Loopback DS1 Loopback in MUX2 Entity (Far-end) Fault Forced
IDLE IS	Idle In Service
LOOPE LOOPF LPBKF LPBKI LPBKL LPBKM LPBKT	Loopback E-End Test Mode Loopback F-End Test Mode Loopback Request to Far-end DS1 Internal Loopback Line Loopback DS1 Loopback in MUX2 Entity (Near-end) DS1 Terminal Loopback
MAP MCOND MONE MONEF MONF MTCE MTCELIM	Mapped Maintenance Condition Monitor E-End Test Mode Monitor E- and F-End Test Mode Monitor F-End Test Mode Maintenance Maintenance Limited
OOS	Out of Service

Table continued on next page.

Table A-4. State Modifier Names (Continued)

State Modifier	Definition
PM	Performance Monitor
PNDG	Pending
POS	Provisioned Out of Service
PRES	Present
PROV	Provisioned
PRTCL	Protocol
QRSS	Quasi-Random Signal Source
REL	Released
SCAN	Scan
SPLTA	Split Access A Test Mode
SPLTB	Split Access B Test Mode
SPLTE	Split Access E-End Test Mode
SPLTEF	Split Access E- and F-End Test Mode
SPLTF	Split Access F-End Test Mode
STBY	Standby
TP	Testport
TPPV	Testport Provisioned
TR	TR 475 Counters
TSTF	Tests Failed
UTST	Under Test

**Circuit Pack/Interface Module Names**

Table A-5 contains the circuit pack and interface module names and their definitions. The entries without a circuit pack code are interface module names. For more information on circuit packs and interface modules refer to the *DACS IV-2000 (256) Release 4.0 Reference Manual (AT&T 365-340-700)*.

Table A-5. Circuit Pack/Interface Modules

Circuit Pack/Module	Circuit Pack Code	Definition
AUX PWR Mod	-	Auxiliary Power Module
BXA BxB	AKM64 846103760	Bus Extender A Bus Extender B
CLKDR1 CLKGN3 CPU2	AKM56 AWR11 AWP6	Clock Distributor 1 Clock Generator 3 Central Processing Unit 2
DPLL1 DPLL2 DS1IF DS1 INTFC Mod DS1 INTFC-P Mod DS1IP DS1RY DS1TX1 DS1TX2 DS1 INTFC-16 Mod DS1 INTFC-32 Mod DS3PM1	AWP9 AWP15 AKM46/AKM46B - - AKM47 AKM48 AWS5 AWS9 - - AKM62	Digital Phase Lock Loop 1 Digital Phase Lock Loop 2 DS1 Interface DS1 Interface Module DS1 Interface Module (Protection) DS1 Interface (Protection) DS1 Relay DS1 Timing Extractor 1 DS1 Timing Extractor 2 DS3 Interface Module (16 DS3 Signals) DS3 Interface Module (32 DS3 Signals) DS3 Performance Monitor 1
ECI3 FBA FBB FBC FBD FBF FBG FBH FBI	AWP8 ED-2C962-30,G1 ED-2C960-30,G1 ED-2C963-30,G1 ED-2C961-30,G1 ED-9C051 ED-9C052 ED-9C053 ED-9C054	Enhanced Communications Interface 3 Fuse Board A Fuse Board B Fuse Board C Fuse Board D Fuse Board F Fuse Board G Fuse Board H Fuse Board I

Table continued on next page.

Table A-5. Circuit Pack/Interface Modules (Continued)

Circuit Pack/Module	Circuit Pack Code	Definition
MC	-	Main Controller
MTC3	AWR10	Maintenance Interface 3
MUX1	AKM52B	Multiplexer 1
MUX2	AKM68B	Multiplexer 2
MUXP1	AKM55	Multiplexer Protection 1
MUXP2	AKM70	Multiplexer Protection 2
MUXPS	AKM53	Multiplexer Protection Switch
PMGR1	AKM66	Performance Monitor Test Signal Generator Receiver 1
PRI5	ERB5	Primary Off-line Storage 5
PWRA	552A	Power A
PWRE1	556A	Power E 1
PWRE2	556B	Power E 2
PWRE3	556C	Power E 3
PWRF	427AA	Power F
PWRG	428AA	Power G
RC Mod	-	Redundant Controller Module
SCI2	AWR2C	Switch Communications Interface 2
SEC5	ERB6	Secondary Off-line Storage 5
SMUX	AKM84	SONET Multiplexer
SMUXP	AKM85	SONET Multiplexer Protection
SSC5	AWP14	Secondary Storage Controller 5
STPNL1	EC-9C049-30,G2	Status Panel 1
STS1 INTFC-16 Mod	-	STS1 Interface-16 Module
SYNC Mod	-	Synchronizer Module
SWCS1	AWS1B	Switch Center Stage 1
SWIF1	AKM49	Switch Interface 1
SWIF2	AKM50	Switch Interface 2
SWIO1	AWR6	Switch Input Output 1
SW Mod	-	Switch Module
SW PWR Mod	-	Switch Power Module
SYNCPRI	-	Primary Timing Reference
SYNCSec	-	Secondary Timing Reference
TB	AWS3/AWS8	Time-Based Stratum 3
TBS31	AWS3	Time-Based Stratum 3 1
TBS32	AWS8	Time-Based Stratum 3 2
TX	AWS5/AWS9	DS1 Timing Extractor
UC2	AKM59	Unit Controller 2
UI2	AWR12	Unit Interface 2

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## Activity Menu

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## Activity Menu

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This appendix gives details related to the human-machine interactions that occur during the menu/prompt mode.

### Human-Machine Interactions

#### Prompts

The craft interface terminal (CIT) displays prompts for commands and parameters. All prompts begin in the first column of a new line.

The command prompt is the less-than sign (<). The command prompt indicates that the system is ready to accept command-line mode input.

The contents of parameter prompts (help prompts) are dependent on the parameters required for the command being issued. The general format of a parameter prompt is:

"string=" or "string[default]="

where "string" is the parameter name. In some instances, the default for parameter prompts can be equal to ALL. This special string indicates that the default for this parameter is the full domain of allowed values for that parameter.

## User Aid

If you do not understand or recognize a prompt, the DACS IV-2000 can be queried for help by typing a question mark (?). A help message is presented to you within the start characters (/) and termination characters (\*). Help messages are limited to 512 characters.

### NOTE:

You must not confuse the help messages and prompts with the MENU mode.

The main controller allows for exit from the help screens in MENU mode when the ^X (cntrl-X) character sequence is received.

In the MENU mode, if the current prompt is the command prompt (less-than sign), user aid is provided via menus (as described in the section titled **Activity Menus** later in this appendix). If the current prompt is a parameter prompt (equal sign), entering a question mark causes a description of the current parameter to be displayed.

## Default Values

When a default value for a parameter exists, it is placed in brackets after the parameter prompt. You can accept the bracketed value for this parameter by responding with the parameter terminator (<cr>, ;, or !). The system continues to the next parameter if the <cr> is entered. If you enter ; or !, the dialog procedure moves to the next parameter that does not have a default or to the *Review of Parameter Responses* (described later).

During the dialog procedure, two special values can be seen during the prompting for some parameters:

- **CURVAL** — is used to indicate that the value for the parameter is the current parameter value.
- **NOVAL** — indicates that no value (or null) is used for the parameter when the command is executed.

For example, if the following is seen during the prompting of parameters:

```
parameter_name[CURVAL]=
```

it indicates that the default for this parameter is the current value of the parameter.

## Numerical Input

The CIT accepts a numerical input for some parameter selections within an MML command string. For example:

```
ED-T1::12-1-1::::ISTAT=2;
```

instead of

```
ED-T1::12-1-1::::ISTAT=DRVN;
```

is acceptable (correlation between numerical input and parameter selection is found in the help messages).

Fractional values are not valid parameter values for any input command.

## Carriage Return

The carriage return (<cr>) is used to enter a response to the most recent prompt. If the prompt is the command prompt (<), another command prompt is returned.

## Backspace

The backspace (<bs>) is used to erase the most recent keystroke (other than a control) made in response to a prompt. The underscore (\_) also functions as a backspace character.

## Cancel

The cancel key <can> (or <cntrl>-x) is used to erase all keystrokes made since the most recent command prompt or to interrupt the current output message. The acknowledgment ?X is displayed and you are returned to the command prompt state if the cancel command is given when in the input mode. For multiple output message segment responses, the output message is restarted after a delay unless the original command is aborted via **ABT-CMD**. For Snider links the <Break> key is functionally equivalent to the <can> key. X.25 links do not support <Break>.



### NOTE:

The functionality of keys is terminal-dependent.

## Backslash

A backslash (\) preceding a carriage return causes the carriage return to **NOT** be interpreted as a line terminator. Instead, the carriage return is put in the input buffer and the DACS IV-2000 expects more input from you. The only other character that is allowed to follow a backslash is a backspace. A backspace following a backslash erases the backslash. If any character other than a carriage return or a backspace follows a backslash, that character is considered invalid. On a Snider link, a question mark is echoed for an invalid character.

## Double Quote

A double quote (") delineates the start and end of a quoted string. When the DACS IV-2000 receives a double quote, it continues to read in characters until it receives a matching double quote. The line terminators (<cr>, ?, !, and ;) have no special significance when inside a quoted string (that is, they do not signify the end of an input). For example, if a double quote is typed in followed by a semicolon, the DACS IV-2000 continues to wait for more input. A backslash inside a quoted string is treated the same as a backslash outside a quoted string. Nesting of double quotes is not allowed, but more than one quoted string can appear in an input line. If a double quote occurs within a comment, it has no special significance (that is, a matching quote is not required).

## Space

Spaces can appear anywhere on the command line. The DACS IV-2000 ignores spaces.

## Comment Sequence

A forward slash followed by an asterisk (/\*) indicates the start of a comment. When the DACS IV-2000 receives a start of comment sequence, it continues to read in characters until it receives an ending comment sequence (\*). The line terminators (<cr>, ?, !, and ;) have no special significance when inside a comment sequence (that is, they do not signify the end of an input). A backslash inside a comment is treated the same as a backslash outside a comment. Nesting of comments is not allowed. If a start of comment sequence occurs within a comment, it is treated like any other sequence of characters. Multiple comments can appear in a single input line. If an end of comment sequence appears without a start of comment sequence, it has no special significance. If a start or end of comment sequence occurs within a quoted string, it has no special significance.

## Review of Parameter Responses

When a line is terminated by an input terminating character (<cr>, ;, or !), the input data is scanned for accuracy of range. If the data is invalid, an error input acknowledgment (?D, ?V, etc.) is displayed (in COMMAND mode) or you are reprompted (in MENU mode).

If the terminating character is either a ; or ! and the entered data was correct, default values are used for all remaining parameters. If any remaining parameters do not have default values, you are prompted for all parameters starting from the parameter that does not have a default unless you are provisioned in the COMMAND mode.

If the terminating character of an input data line is a <cr> and the command is not complete, you are prompted for the next parameter, regardless of any available default value for that parameter. Again, this does not occur if you are provisioned in the COMMAND mode.

In the MENU mode, if all parameters have been correctly entered, the DACS IV-2000 assembles and displays the present input transaction including the command verb-modifier in the command format between the start characters (/) and termination characters (\*). The following example shows the review of parameter responses which occurs after entering a **ENT-CRS-T1** command in the MENU mode.

```
/*  
Review of Parameter Responses . . .  
COMMAND = ENT-CRS-T1  
TARGET ID = FRAME  
(FROM) DS1 PORT = 1-1-2  
(TO) DS1 PORT = 2-1-2  
CORRELATION TAG = CMD2  
CCT = 2WAY  
(FROM) OUTPUT MODE = NORM  
(TO) OUTPUT MODE = NORM  
SST = NOVAL  
*/  
EXECUTE COMMAND? [YES/NO/MODIFY] =
```

In the COMMAND mode, the command is executed with no change of input data except as discussed in the following section.

## Command Verification

Each UID is assigned a User Type, either HUMAN or MACHINE. This User Type is checked after you have entered a command. If the command is potentially service-affecting or may prevent access to the DACS IV-2000 for an extended period of time and the User Type is HUMAN, the system displays a warning message (refer to the **Command Verification** appendix for a list of input commands that require verification) and requests that you verify the command. This warning message is displayed in both MENU and COMMAND Dialog Modes. The warning message is not displayed if the User Type is MACHINE. The warning message is placed in the Review of Parameter Responses menu after the parameter responses and before the EXECUTE COMMAND? [YES/NO/MODIFY] prompt. The following example shows the review of parameter responses which occurs after entering a **DLT-CRS-T1** command when the User Type is set to HUMAN.

```
/*
Review of Parameter Responses . . .
COMMAND = DLT-CRS-T1
TARGET ID = FRAME
(FROM) DS1 PORT = 1-1-1
(TO) DS1 PORT = 2-2-2
CORRELATION TAG = CMD1
CCT = 2WAY
INCLUSIVE = NO

WARNING: Executing this command will take down the specified two-way DS1
cross-connect from (FROM) DS1 INPUT PORT to (TO) DS1 OUTPUT PORT.
*/
EXECUTE COMMAND? [YES/NO/MODIFY] =
```

## Change of Input Data

Upon review of the input data you can detect an error or change a parameter value. From the example above, after displaying the command for review, the DACS IV-2000 prompts you with:

```
EXECUTE COMMAND? [YES/NO/MODIFY] =
```

The only valid responses which execute any commands (a **yes** response) are **y**; , **y!**, and **y<cr>** (**y** can be used instead of yes). The response **n**; , **n!**, or **n<cr>** is taken as an indication not to execute the command, as a **no** response (**n** can be used instead of no). The response **m**; , **m!**, or **m<cr>** is taken as a **modify** response (**m** can be used instead of modify). A terminator by itself (**;**, **!**, **<cr>**) causes the Execute Command query to be repeated. Any other response is flagged as an input error and causes the Execute Command query to be repeated.

The sequence **y** by itself does not constitute a valid response. Furthermore, the sequence **<cr>** (which usually indicates that the default is taken) repeats the Execute Command query.

If you type **modify**, the system prompts for the first parameter of the input command again (which is the TID), without executing the previous command. After all changes are made, you can terminate the dialog with **;** or **!**.

If no additional changes are necessary, the command can be executed by a yes response to the EXECUTE COMMAND? [YES/NO/MODIFY] = prompt in the manner indicated above.

## Activity Menus

---

The activity menus for the DACS IV-2000 are accessed by typing a question mark (?) at the command prompt (<). Six functional groups are defined as:

- Administration
- Loopback
- System maintenance
- Performance monitoring
- Provisioning
- Test access

Within some of these functional groups there are subgroups. For example, protection switching is a subgroup within system maintenance.

```
/*  
Select from  
1. ADMIN - ADMINISTRATIONlink, rtrv, secu, system, user admin  
2. LPBK - LOOPBACK DS1/DS3 loopback operations  
3. MAINT - MAINTENANCE alms, dgns, eqpt, facilities, & protn  
4. PM - DS1/DS3 PM DS1 and DS3 performance monitoring  
5. PROV - PROVISIONING conn, dlt, rtrv, eqpt, facilities  
6. TACC - TEST ACCESS create and administer test access ports  
7. EXIT exit to the command prompt */
```

Figure B-1. ACTIVITY Menu

Following the display of the activity menu (see Figure B-1) you are prompted by Activity=. You can choose the desired activity by either:

- Entering the menu number corresponding to the desired activity.
- Typing enough characters of the desired activity's name to be unique.

For example, to choose the TEST ACCESS activity, you can type in either a 6 or TACC at the prompt.

The action menus are displayed in the following sections as you would see them at a DACS IV-2000 terminal. Following the display of the action menu, you are prompted by the string `Action=`. The desired action can be selected in the same manner as the activity.

Once you have entered the action and command-modifier-modifier, you are prompted to enter the input parameters. When entering input message parameters, you are assisted with prompts and help messages.

### ADMIN - ADMINISTRATION Menus

Figures B-2 through B-8 are the menus associated with Administration.

```
/*
Select from
1. ECHO      activate, cancel, retrieve echo for CILINK
2. LINK      edit, remove, restore, retrieve CILINK
3. RTRV      retrieve system data
4. SECURITY  audit, delete, edit, enter, retrieve UIDs
5. SYSTEM    abort, copy, edit, enter, initialize, set
6. USER      login and logout a user
7. EXIT      exit to the command prompt          */
```

Figure B-2. ADMIN - ADMINISTRATION Menu

```
/*
Select from
1. ACT-ECHO-LINK  activate echo of input messages for CILINK
2. CANC-ECHO-LINK cancel echo of input messages for CILINK
3. RTRV-ECHO-LINK retrieve message echo status for CILINK
4. EXIT           exit to the command prompt          */
```

Figure B-3. ECHO Menu of Administration

```
/*
Select from
1. ED-PRMTR-LINK  edit a CILINK's parameters
2. ED-SECU-LINK   edit a CILINK's security parameters
3. RMV-LINK       remove a CILINK from service
4. RST-LINK       restore a CILINK to service
5. RTRV-PRMTR-LINK retrieve a CILINK's parameters
6. RTRV-SECU-LINK retrieve a CILINK's security parameters
7. EXIT           exit to the command prompt          */
```

Figure B-4. LINK Menu of Administration

```
/*
  Select from
  1. RTRV-CMD-STAT    retrieve the status of the input commands
  2. RTRV-HDR        retrieve system type, id, time, and date
  3. RTRV-NE         retrieve NE provisioning and service data
  4. RTRV-STATE-EQPT retrieve equipment state
  5. RTRV-SYSID      retrieve system program and dbase information
  6. EXIT            exit to the command prompt          */
```

**Figure B-5. RTRV Menu of Administration**

```
/*
  Select from
  1. DLT-SECU-AUD    delete security-related events from database
  2. DLT-SECU-USER  delete a user
  3. ED-SECU-PID    modify a password
  4. ED-SECU-USER   change a user's parameters
  5. ENT-SECU-USER  add a user
  6. RTRV-SECU-AUD  retrieve security-related events from database
  7. RTRV-SECU-USER retrieve a user's parameters
  8. EXIT            exit to the command prompt          */
```

**Figure B-6. SECURITY Menu of Administration**

```
/*
  Select from
  1. ABT-CMD        abort the command currently executing
  2. CPY-MEM       copy program or data from one device to another
  3. ED-DATE       change the system time and date
  4. ED-NE         edit frame ID, alarm delay, backup time, etc.
  5. INIT-SYS     initialize system (boot and reset)
  6. SET-SID      set source ID for a network element
  7. EXIT         exit to the command prompt          */
```

**Figure B-7. SYSTEM Menu of Administration**

```
/*
  Select from
  1. ACT-USER      login a user
  2. CANC-USER    logout a user
  3. EXIT         exit to the command prompt          */
```

**Figure B-8. USER Menu of Administration**

## LPBK - DS1/DS3/EC1/VT1 LOOPBACK Menu

Figures B-9 through B-13 are the menus associated with Loopbacks.

```
/*
Select from
1. DS1LPBK   DS1 Loopback
2. DS3LPBK   DS3 Loopback
3. EC1LPBK   EC1 Loopback
4. VT1LPBK   VT1 Loopback
5. EXIT      exit to the command prompt          */
```

Figure B-9. LPBK - DS1/DS3/EC1/VT1 LOOPBACK Menu

```
/*
Select from
1. ALW-LPBK-T1   allow manual DS1 loopback operations
2. INH-LPBK-T1   inhibit manual DS1 loopback operations
3. OPR-LPBK-T1   operate a DS1 loopback
4. RLS-LPBK-T1   release a DS1 loopback
5. RTRV-LPBK-T1  retrieve info about all active DS1 loopbacks
6. EXIT          exit to the command prompt          */
```

Figure B-10. DS1LPBK Menu of DS1/DS3/EC1/VT1 Loopback

```
/*
Select from
1. ALW-LPBK-T3   allow manual DS3 loopback operations
2. INH-LPBK-T3   inhibit manual DS3 loopback operations
3. OPR-LPBK-T3   operate a DS3 loopback
4. RLS-LPBK-T3   release a DS3 loopback
5. RTRV-LPBK-T3  retrieve info about all active DS3 loopbacks
6. EXIT          exit to the command prompt          */
```

Figure B-11. DS3LPBK Menu of DS1/DS3/EC1/VT1 Loopback

```
/*
Select from
1. ALW-LPBK-EC1  allow manual EC1 loopback operations
2. INH-LPBK-EC1  inhibit manual EC1 loopback operations
3. OPR-LPBK-EC1  operate a EC1 loopback
4. RLS-LPBK-EC1  release a EC1 loopback
5. RTRV-LPBK-EC1 retrieve info about all active EC1 loopbacks
6. EXIT          exit to the command prompt          */
```

Figure B-12. EC1LPBK Menu of DS1/DS3/EC1/VT1 Loopback

```
      /*  
      Select from  
1. ALW-LPBK-VT1      allow manual VT1 loopback operations  
2. INH-LPBK-VT1      inhibit manual VT1 loopback operations  
3. OPR-LPBK-VT1      operate a VT1 loopback  
4. RLS-LPBK-VT1      release a VT1 loopback  
5. RTRV-LPBK-VT1     retrieve info about all active VT1 loopbacks  
6. EXIT              exit to the command prompt          */
```

**Figure B-13. DS1LPBK Menu of DS1/DS3/EC1/VT1 Loopback**

## MAINT - SYSTEM MAINTENANCE Menus

Figures B-14 through B-24 are the menus associated with System Maintenance.

```
/*
Select from
1. ALMEQPT  edit eqpt alarms, operate aco, rtrv eqpt alarms
2. DGNTTESTS  diagnose, test of LEDs, cable, and transmission
3. EQPT      enter fan, remove, restore, retrieve equipment
4. FACILITY  DS1, DS2, DS3, EC1, VT1 facility information
5. PROTN     allow, inhibit, switch to protect/restore
6. EXIT      exit to the command prompt                               */
```

Figure B-14. MAINT - SYSTEM MAINTENANCE Men

```
/*
Select from
1. OPR-ACO-ALL  operate audible alarm cutoff
2. RTRV-ALM-ALL  retrieve all equipment, port, and link alarms
3. RTRV-ALM-COM  retrieve Network Element alarms
4. RTRV-ALM-EQPT  retrieve equipment alarms
5. RTRV-ALM-LINK  retrieve CILINK alarms
6. RTRV-COND-LINK  retrieve CILINK error conditions
7. SET-ATTR-EQPT  set equipment alarm reporting level
8. EXIT          exit to the command prompt                               */
```

Figure B-15. ALMEQPT Menu of System Maintenance

```
/*
Select from
1. DGN-DET-EQPT  perform detailed diagnostics of equipment
2. EX-EQPT      exercise LEDs on equipment
3. TEST-CABLE    perform test of switch cable
4. TEST-SW-CONTROL  test switch clock control cable
5. TEST-TRMSN-T1  initiate test of DS1 transmission path
6. TEST-UNIT-CABLE  test UCLAN cable
7. EXIT          exit to the command prompt                               */
```

Figure B-16. DGNTTESTS Menu of System Maintenance

```
/*
Select from
1. ED-STATE-EQPT      move MC to maintenance state (OOS-MCOND)
2. ENT-FAN-FILTER     initiate system for air filter maintenance
3. RMV-EQPT          remove equipment from service
4. RST-EQPT          restore equipment to service
5. RTRV-ATTR-EQPT    retrieve equipment alarm reporting level
6. RTRV-COND-EQPT    retrieve equipment alarm and status conditions
7. RTRV-SYNCN        retrieve the synchronization mode for sync eqpt
8. SET-SYNCN         set the synchronization mode for sync eqpt
9. EXIT              exit to the command prompt      */
```

Figure B-17. EQPT Menu of System Maintenance

```
/*
Select from
1. DS1FAC             DS1 facility information
2. DS2FAC             DS2 facility information
3. DS3FAC             DS3 facility information
4. EC1FAC             EC1 facility information
5. VT1FAC             VT1 facility information
6. EXIT              exit to the command prompt      */
```

Figure B-18. FACILITY Menu of System Maintenance

```
/*
Select from
1. RTRV-ALM-T1       retrieve DS1 PORT alarm or status
2. RTRV-ATTR-T1     retrieve DS1 PORT alarm reporting level
3. RTRV-COND-T1     retrieve DS1 PORT alarm and status conditions
4. RTRV-PATH-T1     retrieve detailed DS1 path information
5. RTRV-STATE-T1    retrieve DS1 PORT state
6. RTRV-T1          retrieve DS1 PORT parameters
7. SET-ATTR-T1      set DS1 alarm reporting level
8. EXIT              exit to the command prompt      */
```

Figure B-19. DS1FAC Menu of FACILITY

```
/*
Select from
1. RTRV-ALM-T2       retrieve DS2 PORT alarm or status
2. RTRV-ATTR-T2     retrieve DS2 PORT alarm reporting level
3. RTRV-COND-T2     retrieve DS2 PORT alarm and status conditions
4. SET-ATTR-T2      set DS2 alarm reporting level
5. EXIT              exit to the command prompt      */
```

Figure B-20. DS2FAC Menu of FACILITY

```
/*
Select from
1. RTRV-ALM-T3      retrieve DS3 PORT alarm or status
2. RTRV-ATTR-T3    retrieve DS3 PORT alarm reporting level
3. RTRV-COND-T3    retrieve DS3 PORT alarm and status conditions
4. RTRV-T3         retrieve DS3 PORT parameters
5. SET-ATTR-T3     set DS3 alarm reporting level
6. EXIT           exit to the command prompt          */
```

**Figure B-21. DS3FAC Menu of FACILITY**

```
/*
Select from
1. RTRV-ALM-EC1    retrieve EC1 PORT alarm or status
2. RTRV-ATTR-EC1  retrieve EC1 PORT alarm reporting level
3. RTRV-COND-EC1  retrieve EC1 PORT alarm and status conditions
4. RTRV-PATH-EC1  retrieve detailed EC1 path information
5. RTRV-STATE-EC1 retrieve EC1 PORT state
6. RTRV-EC1       retrieve EC1 PORT parameters
7. SET-ATTR-EC1   set EC1 alarm reporting level
8. EXIT           exit to the command prompt          */
```

**Figure B-22. EC1FAC Menu of FACILITY**

```
/*
Select from
1. RTRV-ALM-VT1    retrieve VT1 PORT alarm or status
2. RTRV-ATTR-VT1  retrieve VT1 PORT alarm reporting level
3. RTRV-COND-VT1  retrieve VT1 PORT alarm and status conditions
4. RTRV-PATH-VT1  retrieve detailed VT1 path information
5. RTRV-STATE-VT1 retrieve VT1 PORT state
6. RTRV-VT1       retrieve VT1 PORT parameters
7. SET-ATTR-VT1   set VT1 alarm reporting level
8. EXIT           exit to the command prompt          */
```

**Figure B-23. VT1FAC Menu of FACILITY**

```
/*
Select from
1. ALW-SW-EQPT    allow auto protect/restore switching (unlock)
2. INH-SW-EQPT    inhibit auto protect/restore switching (lock)
3. SW-DX-EQPT     switch to duplex equipment
4. SW-TOPROTN-EQPT switch to protection and lock
5. SW-TOWKG-EQPT  switch to working and lock
6. EXIT           exit to the command prompt          */
```

**Figure B-24. PROTN Menu of System Maintenance**

## PM - DS1/DS3 PERFORMANCE MONITORING

### Menu

Figures B-25 through B-41 are the menus associated with DS1 and DS3 Performance Monitoring.

```
/*
Select from
1. DS1/DS3 PM   DS1/DS3 PM Provisioining and Access
2. EC1OM       EC1 PM Provisioning and Access
3. VT1PM       VT1 PM Provisioning and Access
4. EXIT        exit to the command prompt          */
```

Figure B-25. PM - PERFORMANCE MONITORING Menu

```
/*
Select from
1. DS1CAMPON   DS1 PM Campon Connect, Disconnect
2. DS1PM       DS1 PM Provisioning and Access
3. DS1REPT     DS1 PM Report Scheduling
4. DS1SCAN     DS1 PM Scan Monitoring
5. DS3PM       DS3 PM Provisioning and Access
6. DS3REPT     DS3 PM Report Scheduling
7. GENPROV     Edit, Retrieve NE/T1/T3 provisioning info
8. EXIT        exit to the command prompt          */
```

Figure B-26. DS1/DS3 PM Menu of PERFORMANCE MONITORING

```
/*
Select from
1. CONN-PM-T1  start campon PM
2. DISC-PM-T1  stop campon PM
3. EXIT        exit to the command prompt          */
```

Figure B-27. DS1CAMPON Menu of DS1/DS3 PM

```
/*
Select from
1. CPY-TH-T1   copy threshold values
2. INIT-REG-T1 initialize PM counts
3. RTRV-PM-T1  retrieve PM counts
4. RTRV-PMCNGRN-T1 retrieve campon and scan PM configuration
5. RTRV-TH-T1  retrieve threshold values
6. SET-TH-T1   set threshold values
7. EXIT        exit to the command prompt          */
```

Figure B-28. DS1PM Menu of DS1/DS3 PM

```
/*
Select from
1. ALW-PMREPT-T1      resume PM reporting
2. INH-PMREPT-T1      inhibit PM reporting
3. RTRV-PMSCHED-T1    retrieve PM reporting schedule
4. SCHED-PMREPT-T1    schedule PM reporting
5. EXIT                exit to the command prompt      */
```

Figure B-29. DS1REPT Menu of DS1/DS3 PM

```
/*
Select from
1. ENT-AUTOCMPN-T1    provision PMGR port for auto campon
2. RTRV-SCANTH-NE     retrieve threshold values for scan PM
3. SET-SCANTH-NE      set threshold values for scan PM
4. STA-SCANPM-T1      start scan PM
5. STP-SCANPM-T1      stop scan PM
6. EXIT                exit to the command prompt      */
```

Figure B-30. DS1SCAN Menu of DS1/DS3 PM

```
/*
Select from
1. INIT-REG-T3        initialize PM counts
2. RTRV-PM-T3         retrieve PM counts
3. RTRV-TH-T3         retrieve threshold values
4. SET-TH-T3          set threshold values
5. EXIT                exit to the command prompt      */
```

Figure B-31. DS3PM Menu of DS1/DS3 PM

```
/*
Select from
1. ALW-PMREPT-T3      resume PM reporting
2. INH-PMREPT-T3      inhibit PM reporting
3. RTRV-PMSCHED-T3    retrieve PM reporting schedule
4. SCHED-PMREPT-T3    schedule PM reporting
5. EXIT                exit to the command prompt      */
```

Figure B-32. DS3REPT Menu of DS1/DS3 PM

```
/*  
Select from  
1. ED-NE          edit frame ID, alarm delay, backup time, etc.  
2. ED-T1         edit DS1 PORT parameters  
3. ED-T3         edit DS3 PORT parameters  
4. RTRV-NE      retrieve NE provisioning and service data  
5. RTRV-T1      retrieve DS1 PORT parameters  
6. RTRV-T3      retrieve DS3 PORT parameters  
7. EXIT         exit to the command prompt          */
```

Figure B-33. GENPROV Menu of DS1/DS3 PM

```
/*  
Select from  
1. EC1PROV      EC1 PM provisioning and access  
2. EC1REPT     EC1 PM Report Scheduling  
3. GENPROV     Edit, Retrieve EC1/NE provisioning info  
4. EXIT        exit to the command prompt          */
```

Figure B-34. EC1 PM Menu of PERFORMANCE MONITORING

```
/*  
Select from  
1. INIT-REG-EC1 initialize PM counts  
2. RTRV-PM-EC1 retrieve PM counts  
3. RTRV-TH-EC1 retrieve threshold values  
4. SET-TH-EC1  set threshold values  
5. EXIT        exit to the command prompt          */
```

Figure B-35. EC1PROV Menu of EC1PM

```
/*  
Select from  
1. ALM-MSG-EC1 allow PM messages  
2. ALW-PMREPT-EC1 resume PM reporting  
3. INH-MSG-EC1 inhibit PM messages  
4. INH-PMREPT-EC1 inhibit PM reporting  
5. RTRV-MSG-EC1 retrieve EC1 PORTs allowed/inhibited  
6. RTRV-PMSCHED-EC1 retrieve PM reporting schedule  
7. SCHED-PMREPT-EC1 schedule PM reporting  
8. EXIT        exit to the command prompt          */
```

Figure B-36. EC1REPT Menu of EC1PM

```
/*
  Select from
  1. ED-EC1          edit EC1 PORT parameters
  2. RTRV-EC1       retrieve EC1 PORT parameters
  3. RTRV-PMODE-EC1 retrieve the EC1 performance monitoring mode
  4. RTRV-TH-NE     retrieve the coding violation threshold
  5. SET-PMODE-EC1  set the EC1 performance monitoring mode
  6. SET-TH-NE      set the coding violation threshold
  7. EXIT           exit to the command prompt          */
```

Figure B-37. GENPROV Menu of EC1PM

```
/*
  Select from
  1. VT1PROV        VT1 PM provisioning and access
  2. VT1REPT        VT1 PM Report Scheduling
  3. GENPROV        Edit, Retrieve VT1/NE provisioning info
  4. EXIT           exit to the command prompt          */
```

Figure B-38. VT1 PM Menu of PERFORMANCE MONITORING

```
/*
  Select from
  1. INIT-REG-VT1   initialize PM counts
  2. RTRV-PM-VT1   retrieve PM counts
  3. RTRV-TH-VT1   retrieve threshold values
  4. SET-TH-VT1    set threshold values
  5. EXIT           exit to the command prompt          */
```

Figure B-39. VT1PROV Menu of VT1PM

```
/*
  Select from
  1. ALM-MSG-VT1    allow PM messages
  2. ALW-PMREPT-VT1 resume PM reporting
  3. INH-MSG-VT1    inhibit PM messages
  4. INH-PMREPT-VT1 inhibit PM reporting
  5. RTRV-MSG-VT1   retrieve VT1 PORTs allowed/inhibited
  6. RTRV-PMSCHED-VT1 retrieve PM reporting schedule
  7. SCHED-PMREPT-VT13 schedule PM reporting
  8. EXIT           exit to the command prompt          */
```

Figure B-40. VT1REPT Menu of VT1PM

```
      /*  
      Select from  
1. ED-VT1          edit VT1 PORT parameters  
2. RTRV-VT1       retrieve VT1 PORT parameters  
3. RTRV-PMMODE-VT1 retrieve the VT1 performance monitoring mode  
4. RTRV-TH-NE     retrieve the coding violation threshold  
5. SET-PMMODE-VT1 set the VT1 performance monitoring mode  
6. SET-TH-NE      set the coding violation threshold  
7. EXIT           exit to the command prompt          */
```

Figure B-41. GENPROV Menu of VT1PM

## PROV - PROVISIONING Menu

Figures B-42 through B-51 are the menus associated with Provisioning.

```
/*
Select from
1. EQUIP          dlt, edit, ent, rtrv equip
2. CONN/DLT/ED/ENT conn, dlt, edit, ent DS1/DS3/EC1/VT1 paths
3. RTRV          retrieve DS1/DS3/EC1/VT1 PORT parameters
4. EXIT          exit to the command prompt          */
```

Figure B-42. PROV - PROVISIONING Menu

```
/*
Select from
1. DLT-EQPT      delete assignment of auto-provisioned entities
2. ED-EQPT       edit equipment provisioning data
3. ENT-EQPT      manually provision UNIT and DS3PM
4. RTRV-EQPT     retrieve equipment provisioning data, inc. state
5. EXIT          exit to the command prompt          */
```

Figure B-43. EQUIP Menu of PROVISIONING

```
/*
Select from
1. DS1/DS3PROV  delete, edit, enter DS1 paths, edit DS3 paths
2. EC1PROV      delete, edit, enter EC1 paths
3. VT1PROV      delete, edit, enter VT1 paths
4. EXIT          exit to the command prompt          */
```

Figure B-44. CONN/DLT/ED/ENT Menu of PROVISIONING

```
/*
Select from
1. DLT-CONF-T1  disconnect a leg from a 2-way conference
2. DLT-CRS-T1   disconnect 1-way or 2-way DS1 path
3. ED-T1        edit DS1 PORT parameters
4. ED-T3        edit DS3 PORT parameters
5. ENT-CONF-T1  add 1-way DS1 path to existing DS1 path
6. ENT-CRS-T1   cross-connect a 1-way or 2-way DS1 path
7. ENT-ROLL-T1 rollover 1-way or 2-way DS1 path
8. EXIT          exit to the command prompt          */
```

Figure B-45. DS1/DS3PROV Menu of CONN/DLT/ED/ENT

```
/*
  Select from
  1. DLT-CONF-STS1    disconnect a leg from a 2-way conference
  2. DLT-CRS-STS1    disconnect 1-way or 2-way STS1 path
  3. ED-EC1          edit EC1 PORT parameters
  4. ED-PORT        edit the signal format information
  5. ENT-CONF-STS1   add 1-way STS1 path to existing STS1 path
  6. ENT-CRS-STS1   cross-connect a 1-way or 2-way STS1 path
  7. ENT-ROLL-STS1  rollover 1-way or 2-way STS1 path
  8. EXIT            exit to the command prompt          */
```

Figure B-46. EC1PROV Menu of CONN/DLT/ED/ENT

```
/*
  Select from
  1. DLT-CONF-VT1    disconnect a leg from a 2-way conference
  2. DLT-CRS-VT1    disconnect 1-way or 2-way VT1 path
  3. ED-PORT        edit the signal format information
  4. ED-VT1        edit VT1 PORT parameters
  5. ENT-CONF-VT1   add 1-way VT1 path to existing VT1 path
  6. ENT-CRS-VT1   cross-connect a 1-way or 2-way VT1 path
  7. ENT-ROLL-VT1  rollover 1-way or 2-way VT1 path
  8. EXIT            exit to the command prompt          */
```

Figure B-47. VT1PROV Menu of CONN/DLT/ED/ENT

```
/*
  Select from
  1. DS1/DS3RTRV    retrieve DS1 paths
  2. EC1RTRV        retrieve EC1 paths
  3. VT1RTRV        retrieve VT1 paths
  4. EXIT            exit to the command prompt          */
```

Figure B-48. RTRV Menu of PROVISIONING

```
/*
  Select from
  1. RTRV-CONF-T1   retrieve 1-way DS1 path from existing DS1 path
  2. RTRV-CRS       retrieve DS1 cross-connect map and type
  3. RTRV-CRS-T1    retrieve DS1 cross-connect map
  4. RTRV-DROPCRS-T1 retrieve dropped secondary connections
  5. RTRV-T1        retrieve DS1 PORT parameters
  6. RTRV-T3        retrieve DS3 PORT parameters
  7. EXIT            exit to the command prompt          */
```

Figure B-49. DS1/DS3RTRV Menu of RTRV

```
/*
Select from
1. RTRV-CONF-STS1  retrieve 1-way STS1 path from existing DS1 path
2. RTRV-CRS       retrieve STS1 cross-connect map and type
3. RTRV-CRS-STS1  retrieve STS1 cross-connect map
4. RTRV-DROPCRS-STS1 retrieve dropped secondary connections
5. RTRV-EC1       retrieve EC1 PORT parameters
6. RTRV-PORT      retrieve the signal format information
7. EXIT           exit to the command prompt          */
```

**Figure B-50. EC1RTRV Menu of RTRV**

```
/*
Select from
1. RTRV-CONF-VT1  retrieve 1-way VT1 path from existing VT1 path
2. RTRV-CRS       retrieve VT1 cross-connect map and type
3. RTRV-CRS-VT1   retrieve VT1 cross-connect map
4. RTRV-DROPCRS-VT1 retrieve dropped secondary connections
5. RTRV-PORT      retrieve the signal format information
6. RTRV-VT1       retrieve VT1 PORT parameters
7. EXIT           exit to the command prompt          */
```

**Figure B-51. VT1RTRV Menu of RTRV**

## TACC - TEST ACCESS Menu

Figures B-52 through B-55 are the menus associated with Test Access.

```
/*
Select from
1. DS1TACC      create and administer DS1 test access ports
2. EC1TACC      create and administer EC1 test access ports
3. VT1TACC      create and administer VT1 test access ports
4. EXIT         exit to the command prompt          */
```

Figure B-52. TACC - TEST ACCESS Menu

```
/*
Select from
1. CHG-ACCMD-T1 change test access mode of a test session
2. CHG-TACC-T1  change prmtrs other than TEST MODE of a test session
3. CONN-TACC-T1 connect a test access port
4. DISC-TACC    disconnect a test access port
5. ENT-TSTPT-T1 manually provision DS1 TESTPORTs
6. RLS-TSTPT-T1 manually de-provision DS1 TESTPORTs
7. RTRV-TACC-T1 retrieve info about all test access ports
8. EXIT         exit to the command prompt          */
```

Figure B-53. DS1TACC Menu of TEST ACCESS Menu

```
/*
Select from
1. CHG-ACCMD-EC1 change test access mode of a test session
2. CHG-TACC-EC1  change prmtrs other than TEST MODE of a test session
3. CONN-TACC-EC1 connect a test access port
4. DISC-TACC     disconnect a test access port
5. ENT-TSTPT-EC1 manually provision EC1 TESTPORTs
6. RLS-TSTPT-EC1 manually de-provision EC1 TESTPORTs
7. RTRV-TACC-EC1 retrieve info about all test access ports
8. EXIT         exit to the command prompt          */
```

Figure B-54. EC1TACC Menu of TEST ACCESS Menu

```
/*
  Select from
  1. CHG-ACCMD-VT1  change test access mode of a test session
  2. CHG-TACC-VT1   change prmtrs other than TEST MODE of a test session
  3. CONN-TACC-VT1  connect a test access port
  4. DISC-TACC      disconnect a test access port
  5. ENT-TSTPT-VT1  manually provision VT1 TESTPORTs
  6. RLS-TSTPT-VT1  manually de-provision VT1 TESTPORTs
  7. RTRV-TACC-VT1  retrieve info about all test access ports
  8. EXIT           exit to the command prompt          */
```

**Figure B-55. VT1TACC Menu of TEST ACCESS Menu**

---

## State Names and State Qualifiers

# C

---

### Contents

- Formats of State Name and State Qualifier Parameter Values C-1
- State Modifier Values for Equipment and CILINKs C-2
- State Modifier values for Ports C-6
- Summary of Valid State Modifier Combinations C-10

## Contents

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## State Names and State Qualifiers

# C

---

This appendix defines the formats of the State Name and State Qualifier parameters used in the DACS IV-2000 commands and messages. At the end of this appendix, Tables C-8 through C-10 list the allowable values for State Names and State Qualifiers.

### Formats of State Name and State Qualifier Parameter Values

---

There are two types of state parameters in the DACS IV-2000:

- **State Names** - report the state of a specific entity in an output message. Values of the State Name parameter consist of a number of *state modifiers* at defined levels, linked together by dashes. For Equipment and CIL-INK entities, up to four levels are used. For Port entities, up to three levels are used. The Level 1 modifier (L1.modifier) in a State Name is known as the *basic state*.

The format for a State Name value is as follows:

**L1.modifier[-L2.modifier][-L3.modifier][-L4.modifier]**

- **State Qualifiers** - specify a subset of State Name values for retrieval in an input command. Values for the State Qualifier parameter have a similar format to State Names with two differences; the Level 1 argument is optional and multiple modifiers can appear at each level connected with ampersands (&).

The format for a State Qualifier value is as follows:

**L1.argument[-L2.argument][-L3.argument][-L4.argument]**

where:

$Ln.argument = Ln.modifier | Ln.argument \& Ln.argument$

The limit on the number of modifiers that can be given at a particular level is the total number of modifiers that exist at that level.

### State Modifier Values for Equipment and CILINKs

---

State modifier values for Equipment and CILINK entities can consist of up to four levels. This section defines the different state values for each level modifier. A summary of the valid state modifier combinations for Equipment and CILINK state names is given in Table C-8. The State Modifier value definitions for the DACS IV-2000 Equipment and CILINK entities are:

- **Level 1 Modifiers (Basic State)** - indicate that the entity is in a provisioned or maintenance state. The two categories of Level 1 Modifiers consist of the following states:
  - **Provisioning States** - AVAIL, PNDG, EQPD, and PROV.
  - **Maintenance States** - ACT, OOS, IS, POS, and STBY.

Some of the Level 1 (basic state) names are substates of other Level 1 names. For example, the State Qualifier value of IS matches the basic states IS, ACT, and STBY. All Maintenance States are substates of the PROV state (that is, an entity does not take on Maintenance States until it has been provisioned). Table C-1 lists the Level 1 State Modifiers for Equipment and CILINK Entities.

Table C-1. Equipment and CILINK Level 1 State Modifiers

Modifier	Definition
ACT	<b>Active.</b> The entity is in service and not protected. In addition, those entities whose states are traffic-dependent are currently carrying traffic.
AVAIL	<b>Available.</b> The entity is not provisioned and not assigned in the system database. This entity is not monitored by the system in any manner.
BOOT	<b>Boot.</b> The entity is performing a system boot.
EQPD	<b>Equipped.</b> The entity is assigned in the system database but is not provisioned.
IS	<b>In Service.</b> The entity is assumed to be performing normal service functions. ACT, STBY, and POS are substates of IS.
OOS	<b>Out of Service.</b> The entity is not providing its normal service function (the entity is either removed from service or protected) because of some problem in the system or a manual action has been taken to remove it from service.
PNDG	<b>Pending.</b> The entity is assigned in the system database but is not provisioned. The entity is determined not to be physically present in its assigned location if the ABS (see Level 3 modifiers) modifier is not given.
POS	<b>Provisioned Out of Service.</b> The entity is a traffic-dependent entity that is capable of providing service but is not currently carrying traffic. Placing traffic on the entity will change the state to ACT.
PROV	<b>Provisioned.</b> The entity is provisioned indicating it is ready to perform its intended function (unless prevented from doing so for a maintenance-related reason). ACT, OOS, IS, POS, and STBY are substates of PROV.
STBY	<b>Standby.</b> The entity is in service but not currently being used to provide normal service functions. The entity is ready to replace another similar entity (via protection or duplex switching). This is the normal state of a protecting entity and of the nonactive entity of a duplex pair.

- Level 2 Modifiers** - indicate when an entity is inhibited by the system from automatically switching states. If no Level 2 modifier is given in a State Name, it implies that the entity is not inhibited. Table C-2 lists the Level 2 State Modifiers for Equipment and CILINK Entities.

Table C-2. Equipment and CILINK Level 2 State Modifiers

Modifier	Definition
FRCD	<b>Forced.</b> The entity was locked into a service-providing state via a manual command. For protectable entities, this implies that the entity is inhibited from switching out of this state.
MTCE	<b>Maintenance.</b> The entity was locked into a non-service-providing state via a manual command. For protectable entities, this implies that the entity is inhibited from switching out of this state.
PRTCL	<b>Protocol.</b> The administrative link is out-of-service due to a violation of data communications protocol by the external equipment connected to the administrative port. Autonomous transition to the in-service (IS) state occurs after the protocol violation clears.
ERRANAL	<b>Error Analysis.</b> The entity was locked into a non-service-providing state due to analysis of errors. This modifier applies to protectable entities and is known as an <i>autolock</i> .

- Level 3 Modifiers** - give more detailed information about the maintenance condition (presence and health) of an entity. If no Level 3 modifier is given in a State Name, it implies that the system does not have any information for the specified entity. Table C-3 lists the Level 3 State Modifiers for Equipment and CILINK Entities.

There is a hierarchy for the usage of the Level 3 modifiers associated with the degree of *severity* of the condition that is being reported. The hierarchy is as follows: MTCELIM, ABS, BLK, PRES, FLT, TSTF, and FEF. That is, if the modifier is MTCELIM, anything lower in the hierarchy cannot be determined (e.g., it cannot be determined if there is a circuit pack present or what the health of the circuit pack is). The FEF modifier indicates that there is nothing wrong with the specified entity (if there was, one of the other modifiers higher in the hierarchy is used). The MCOND modifier is not included in the hierarchy since it is a special state only associated with the MC.

Table C-3. Equipment and CILINK Level 3 State Modifiers

Modifier	Definition
ABS	<b>Absent.</b> The entity has no circuit pack present in the slot.
BLK	<b>Blank.</b> The entity slot is occupied by a blank circuit pack that does not provide any service functionality.
FEF	<b>Family of Equipment Failure.</b> The specified entity has nothing wrong with it, but the failure of a related entity is keeping the specified entity in its present state.
FLT	<b>Fault.</b> The entity has a hard fault and may not be able to provide its normal service function.
MCOND	<b>Maintenance Condition.</b> This is a special state indicating some normal service functions are suspended due to a problem or special functions are being performed that cannot be performed while normal service is provided.
MTCELIM	<b>Maintenance Limited.</b> The system is not capable of providing normal trouble detection and maintenance functions to the specified entity, usually due to failures of other related entities. Because the entity is not being fully monitored, other state information for the entity may not be accurate.
PRES	<b>Present.</b> The specified entity has a circuit pack present in the slot and nothing is known about the health of the circuit pack.
TSTF	<b>Tests Failed.</b> The specified entity has a fault that was detected through diagnostic tests and may not be able to provide its normal functions.

- **Level 4 Modifiers** - indicate a SWIO circuit pack is protecting its mate SWIO circuit pack. There is only one Level 4 modifier for Equipment and CILINKS and it is defined in Table C-4.

Table C-4. Equipment and CILINK Level 4 State Modifier

Modifier	Definition
COMB	<b>Combined.</b> The specified entity has assumed load or functions assigned to a mate entity in addition to its own load.

### State Modifier values for Ports

---

State modifier values for Port entities can consist of up to three levels. This section defines the different state values for each level modifier. These modifiers, except where indicated, are used for both Input and Output Ports. The term *corresponding* is used to relate Input Ports and Output Ports with the same address (associated with the same DS1 or DS3). A summary of the valid state modifier combinations for Input Port and Output Port state names is given in Table C-9 (Input Ports) and Table C-10 (Output Ports). The State Modifier value definitions for the DACS IV-2000 Port entities are:

- **Level 1 Modifiers (Basic State)** - indicate how the Input or Output Port is being used for service. Table C-5 lists the Level 1 State Modifiers for Port Entities.

Table C-5. Port Level 1 State Modifiers

Modifier	Definition
IDLE	<b>Idle.</b> The specified Input or Output Port is not part of a cross-connected circuit and is not being used as a FAD (Facility Access Digroup).
MAP	<b>Mapped.</b> The specified Input or Output Port is part of a cross-connected circuit.
PM	<b>Performance Monitor.</b> The specified Port is provisioned for performance monitoring.
QRSS	<b>Quasi-Random Signal Source.</b> The specified Port has its Input Status provisioned to QRSS. A DS1 Interface Port that has its Input Status provisioned to QRSS acts as the QRSS source for all DS1 Ports that have their Output Modes provisioned to QRSS. The actual QRSS signal is generated external to the DACS IV-2000.
TP	<b>Testport.</b> The specified Input or Output Port is being used as a FAD (Facility Access Digroup). An Input Port is in the TP state if and only if its corresponding Output Port is also in the TP state.
TPPV	<b>Testport Provisioned.</b> The specified Input or Output Port is provisioned as a FAD (Facility Access Digroup).

- **Level 2 Modifiers** - indicate how the specified Input or Output Port is being used for test access. Table C-6 lists the Level 2 State Modifiers for Port Entities.

Table C-6. Port Level 2 State Modifiers

Modifier	Definition
AUTOCMPN	<b>Automatic camp-on.</b> The specified Port is provisioned to perform automatic camp-on performance monitoring.
CB	<b>PSET#1 Counters.</b> The type of performance monitoring parameters that the frame is provisioned to monitor.
CMPN	<b>Camp-on.</b> The specified Port is provisioned to perform camp-on performance monitoring.
REL	<b>Released.</b> The specified Input or Output Port is not under test access or being used as a test access port. Also, the Port may be provisioned to perform camp-on performance monitoring but is currently in the standby mode.
TR	<b>PSET#2 Counters.</b> The type of performance monitoring parameters that the frame is provisioned to monitor.
UTST	<b>Under Test.</b> The specified Input or Output Port is under test access.
MONE, MONF, SPLTA, SPLTB, SPLTE, SPLTF, LOOPE, LOOPF, MONEF, or SPLTEF	<b>Test Mode.</b> The specified Input or Output Port is being used as a testport, with the state qualifier indicating the original Test Mode. For these Level 2 modifiers, the Level 1 modifier is TP or TPPV and the state of the corresponding Input and Output Port is identical.
SCAN	<b>Scan.</b> The specified Port is provisioned to perform scan performance monitoring.

- Level 3 Modifiers** - indicate if the specified Input or Output Port is being looped (a temporary connection is formed between corresponding Input and Output Ports). A Port cannot have any of these Level 3 modifiers if the Level 1 modifier is TP. If the Level 2 modifier is UTST, only the Level 3 modifier LPBKT or LPBKM can appear. Table C-7 lists the Level 3 State Modifiers for Port Entities.

Table C-7. Port Level 3 State Modifiers

Modifier	Definition
IDLE	<b>Idle.</b> The specified DS1 Port is ready to perform either scan or automatic camp-on performance monitoring but is currently in a standby mode.
LPBKI	<b>DS1 Internal Loopback.</b> The data coming into the specified DS1 Input Port is coming from its corresponding DS1 Output Port (that is, looping the signal back into the system at the DS1 Interface). This modifier is not used for an Output Port.
LPBKL	<p><b>Line Loopback.</b> The data transmitted from the specified DS1 Output Port is coming from its corresponding DS1 Input Port in a clear-channel form (that is, the loopback is performed before the signal has been terminated). This modifier is not used for an Input Port.</p> <p>For a MUX circuit pack, this modifier indicates the specified DS3 Interface has an active DS3 loopback, as established by the near-end command.</p>
LPBKT	<b>DS1 Terminal Loopback.</b> The data transmitted from the specified DS1 Output Port is coming from its corresponding DS1 Input Port after having been terminated at the DS1 Input Port and reformatted at the DS1 Output Port. This modifier is not used for an Input Port.
LPBKF	<b>Loopback Request to Far-end.</b> For a DS1 Port, a MUX circuit pack has an active request for a far-end DS1 loopback. For a DS3 Port, a MUX circuit pack has an active request for a far-end DS3 loopback.
LPBKM	<b>DS1 Loopback in MUX2 circuit pack.</b> A MUX circuit pack has an active DS1 loopback, as established from the near-end.
FLPBKM	<b>DS1 Loopback in MUX2 circuit pack.</b> A MUX circuit pack has an active DS1 loopback, established in response to the far-end command.
FLPBKL	<b>DS3 Line Loopback.</b> A MUX circuit pack has an active DS3 loopback, established in response to the far-end command.

**Summary of Valid State Modifier Combinations**

Tables C-8, C-9, and C-10 summarize the valid combination of State Modifiers for the State Names of the DACS IV-2000 entities.

**Table C-8. Summary of DACS IV-2000 State Modifier Combinations - Equipment and CILINK**

State Name	Definition
ACT	Active
ACT-ABS	Active-Absent
ACT-ABS-COMB	Active-Absent-Combined
ACT-BLK	Active-Blank
ACT-COMB	Active-Combined
ACT-FLT	Active-Fault
ACT-FLT-COMB	Active-Fault-Combined
ACT-FRCD	Active-Forced
ACT-FRCD-ABS	Active-Forced-Absent
ACT-FRCD-ABS-COMB	Active-Forced-Absent-Combined
ACT-FRCD-BLK	Active-Forced-Blank
ACT-FRCD-COMB	Active-Forced-Combined
ACT-FRCD-FLT	Active-Forced-Fault
ACT-FRCD-FLT-COMB	Active-Forced-Fault-Combined
ACT-FRCD-MTCELIM	Active-Forced-Maintenance Limited
ACT-FRCD-MTCELIM-COMB	Active-Forced-Maintenance Limited-Combined
ACT-FRCD-TSTF-COMB	Active-Forced-Tests Failed-Combined
ACT-MTCELIM	Active-Maintenance Limited
ACT-MTCELIM-COMB	Active-Maintenance Limited-Combined
ACT-TSTF	Active-Tests Failed
ACT-TSTF-COMB	Active-Tests Failed-Combined
AVAIL	Available
AVAIL-ABS	Available-Absent
AVAIL-BLK	Available-Blank
AVAIL-MTCELIM	Available-Maintenance Limited
AVAIL-PRES	Available-Present
BOOT	Boot
EQPD	Equipped
EQPD-FLT	Equipped-Fault
EQPT-MTCELIM	Equipped-Maintenance Limited
EQPD-TSTF	Equipped-Tests Failed

Table continued on next page.

Table C-8. Summary of DACS IV-2000 State Modifier Combinations - Equipment and CILINK (Continued)

State Name	Definition
IS	In Service
IS-FLT	In Service-Fault
IS-MTCELIM	In Service-Maintenance Limited
OOS-ABS	Out of Service-Absent
OOS-BLK	Out of Service-Blank
OOS-ERRANAL	Out of Service-Error Analysis
OOS-ERRANAL-ABS	Out of Service-Error Analysis-Absent
OOS-ERRANAL-BLK	Out of Service-Error Analysis-Blank
OOS-ERRANAL-FEF	Out of Service-Error Analysis-Family of Equipment Failure
OOS-ERRANAL-FLT	Out of Service-Error Analysis-Fault
OOS-ERRANAL-MTCELIM	Out of Service-Error Analysis-Maintenance Limited
OOS-ERRANAL-TSTF	Out of Service-Error Analysis-Tests Failed
OOS-FEF	Out of Service-Family of Equipment Failure
OOS-FLT	Out of Service-Fault
OOS-MCOND	Out of Service-Maintenance Condition
OOS-MTCE	Out of Service-Maintenance
OOS-MTCE-ABS	Out of Service-Maintenance-Absent
OOS-MTCE-BLK	Out of Service-Maintenance-Blank
OOS-MTCE-FEF	Out of Service-Maintenance-Family of Equipment Failure
OOS-MTCE-FLT	Out of Service-Maintenance-Fault
OOS-MTCE-MTCELIM	Out of Service-Maintenance-Maintenance Limited
OOS-MTCE-TSTF	Out of Service-Maintenance-Tests Failed
OOS-MTCELIM	Out of Service-Maintenance Limited
OOS-PRTCL	Out of Service-Protocol
OOS-TSTF	Out of Service-Tests Failed
PNDG-ABS	Pending-Absent
PNDG-BLK	Pending-Blank
PNDG-MTCELIM	Pending-Maintenance Limited
POS	Provisioned Out of Service
POS-ABS	Provisioned Out of Service-Absent
POS-ABS-COMB	Provisioned Out of Service-Absent-Combined
POS-BLK	Provisioned Out of Service-Blank
POS-COMB	Provisioned Out of Service-Combined
POS-FLT	Provisioned Out of Service-Fault
POS-FLT-COMB	Provisioned Out of Service-Fault-Combined

Table continued on next page.

Table C-8. Summary of DACS IV-2000 State Modifier Combinations - Equipment and CILINK (Continued)

State Name	Definition
POS-FRCD	Provisioned Out of Service-Forced
POS-FRCD-ABS	Provisioned Out of Service-Forced-Absent
POS-FRCD-ABS-COMB	Provisioned Out of Service-Forced-Absent-Combined
POS-FRCD-BLK	Provisioned Out of Service-Forced-Blank
POS-FRCD-COMB	Provisioned Out of Service-Forced-Combined
POS-FRCD-FLT	Provisioned Out of Service-Forced-Fault
POS-FRCD-FLT-COMB	Provisioned Out of Service-Forced-Fault-Combined
POS-FRCD-MTCELIM	Provisioned Out of Service-Forced-Maintenance Limited
POS-FRCD-MTCELIM-COMB	Provisioned Out of Service-Forced-Maintenance Limited-Combined
POS-FRCD-TSTF	Provisioned Out of Service-Forced-Tests Failed
POS-FRCD-TSTF-COMB	Provisioned Out of Service-Forced-Tests Failed-Combined
POS-MTCELIM	Provisioned Out of Service-Maintenance Limited
POS-MTCELIM-COMB	Provisioned Out of Service-Maintenance Limited-Combined
POS-TSTF	Provisioned Out of Service-Tests Failed
POS-TSTF-COMB	Provisioned Out of Service Tests Failed-Combined
PROV	Provisioned
PROV-MTCELIM	Provisioned-Maintenance Limited
STBY	Standby

Table C-9. Summary of DACS IV-2000 State Modifier Combinations - Input Ports

State Name	Definition
IDLE-REL IDLE-REL-LPBKI IDLE-UTST	Idle-Released Idle-Released-DS1 Internal Loopback Idle-Under Test
MAP-REL MAP-REL-LPBKI MAP-UTST	Mapped-Released Mapped-Released-DS1 Internal Loopback Mapped-Under Test
QRSS-REL	Quasi Random Signal Source-Released
TP-MONE TP-MONF TP-SPLTA TP-SPLTB TP-SPLTE TP-SPLTF TP-LOOPE TP-LOOPF TP-MONEF TP-SPLTEF	Testport-Monitored E-End Test Mode Testport-Monitored F-End Test Mode Testport-Split Access A Test Mode Testport-Split Access B Test Mode Testport-Split Access E-End Test Mode Testport-Split Access F-End Test Mode Testport-Loopback E-End Test Mode Testport-Loopback F-End Test Mode Testport-Monitored E- and F-End Test Mode Testport-Split Access E- and F-End Test Mode
TPPV-REL TPPV-REL-LPBKI TPPV-MONE TPPV-MONF TPPV-SPLTA TPPV-SPLTB TPPV-SPLTE TPPV-SPLTF TPPV-LOOPE TPPV-LOOPF TPPV-MONEF TPPV-SPLTEF TPPV-UTST	Testport Provisioned-Released Testport Provisioned-Released-DS1 Internal Loopback Testport Provisioned-Monitored E-End Test Mode Testport Provisioned-Monitored F-End Test Mode Testport Provisioned-Split Access A Test Mode Testport Provisioned-Split Access B Test Mode Testport Provisioned-Split Access E-End Test Mode Testport Provisioned-Split Access F-End Test Mode Testport Provisioned-Loopback E-End Test Mode Testport Provisioned-Loopback F-End Test Mode Testport Provisioned-Monitored E- and F-End Test Mode Testport Provisioned-Split Access E- and F-End Test Mode Testport Provisioned-Under Test

Table C-10. Summary of DACS IV-2000 State Modifier Combinations - Output Ports

State Name	Definition
IDLE-REL	Idle-Released
IDLE-REL-LPBKL	Idle-Released-Line Loopback
IDLE-REL-LPBKT	Idle-Released-DS1 Terminal Loopback
IDLE-REL-LPBKF	Idle-Released-Loopback Request to Far-End
IDLE-REL-LPBKM	Idle-Released-DS1 Loopback in MUX2 Circuit Pack (Near-End)
IDLE-REL-FLPBKM	Idle-Released-DS1 Loopback in MUX2 Circuit Pack (Far-End)
MAP-REL	Mapped-Released
MAP-REL-LPBKL	Mapped-Released-Line Loopback
MAP-REL-LPBKT	Mapped-Released-DS1 Terminal Loopback
MAP-REL-LPBKF	Mapped-Released-Loopback Request to Far-End
MAP-REL-LPBKM	Mapped-Released-DS1 Loopback in MUX2 Circuit Pack (Near-End)
MAP-REL-FLPBKM	Mapped-Released-DS1 Loopback in MUX2 Circuit Pack (Far-End)
MAP-UTST	Mapped-Under Test
PM-AUTOCMPN	Performance Monitor-Automatic Camp on
PM-AUTOCMPN-IDLE	Performance Monitor-Automatic Camp on-Idle
PM-CB	Performance Monitor-PSET#1 Counters
PM-CB-IDLE	Performance Monitor-PSET#1 Counters-Idle
PM-CMPN	Performance Monitor-Camp on
PM-REL	Performance Monitor-Released
PM-SCAN	Performance Monitor-Scan
PM-SCAN-IDLE	Performance Monitor-Scan-Idle
PM-TR	Performance Monitor-PSET#2 Counters
PM-TR-IDLE	Performance Monitor-PSET#2 Counters-Idle
QRSS-REL	Quasi Random Signal Source-Released
TP-LOOPE	Testport-Loopback E-End Test Mode
TP-LOOPF	Testport-Loopback F-End Test Mode
TP-MONE	Testport-Monitored E-End Test Mode
TP-MONF	Testport-Monitored F-End Test Mode
TP-MONEF	Testport-Monitored E- and F-End Test Mode
TP-SPLTA	Testport-Split Access A Test Mode
TP-SPLTB	Testport-Split Access B Test Mode
TP-SPLTE	Testport-Split Access E-End Test Mode

Table C-10. Summary of DACS IV-2000 State Modifier Combinations - Output Ports

State Name	Definition
Table continued on next page.	
TP-SPLTF TP-SPLTEF	Testport-Split Access F-End Test Mode Testport-Split Access E- and F-End Test Mode
TPPV-LOOPE TPPV-LOOPF TPPV-MONE TPPV-MONF TPPV-MONEF TPPV-REL TPPV-REL-LPBKL TPPV-REL-LPBKT TPPV-REL-LPBKF TPPV-REL-LPBKM	Testport Provisioned-Loopback E-End Test Mode Testport Provisioned-Loopback F-End Test Mode Testport Provisioned-Monitored E-End Test Mode Testport Provisioned-Monitored F-End Test Mode Testport Provisioned-Monitored E- and F-End Test Mode Testport Provisioned-Released Testport-Released-Line Loopback Testport-Released-DS1 Terminal Loopback Testport-Released-Loopback Request to Far-End Testport-Released-DS1 Loopback in MUX2 Circuit Pack (Near-End)
TPPV-REL-FLPBKM	Testport-Released-DS1 Loopback in MUX2 Circuit Pack (Far-End)
TPPV-SPLTA TPPV-SPLTB TPPV-SPLTE TPPV-SPLTF TPPV-SPLTEF	Testport Provisioned-Split Access A Test Mode Testport Provisioned-Split Access B Test Mode Testport Provisioned-Split Access E-End Test Mode Testport Provisioned-Split Access F-End Test Mode Testport Provisioned-Split Access E- and F-End Test Mode
TPPV-UTST	Testport Provisioned-Under Test



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**Condition Types**

**D**

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**Contents**

- Alarm Conditions

D-5

## Contents

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## Condition Types

# D

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Whenever the DACS IV-2000 reports an abnormal or trouble condition, it is done through a predefined set of condition types. The parameter which contains this information is named CTYPE. A retrieve command can be used to specify the type of trouble condition that is to be reported (that is, report the entities that have the indicated trouble condition).

The CTYPE values and their corresponding definitions of abnormal and trouble conditions, are presented in Table D-1. An overlap of CTYPEs occurs due to the presence of general and specific trouble conditions. When it is not clear as to which CTYPE to use, use the more specific CTYPE.

Table D-1. Condition Types

Condition Type	Definition
ACPWR	AC Power Failure
ACTDS1LPBK	Active DS1 Loopback on DS3 Interface entity
ACTDS3LPBK	Active DS3 Loopback on DS3 Interface entity
AIS	Alarm Indication Signal detected
AISFRAMED	A framed Alarm Indication Signal detected
AISL	Line Alarm Indication Signal
AISO	Path Alarm Indication Signal
AISUNFRAMED	An unframed Alarm Indication Signal detected
ALL	All possible trouble conditions (input only)
ALLDS2SOOF	All DS2s in a DS3 signal are out of frame
ALLREFFAIL	Failure of all SYNC timing references

Table continued on next page.

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Table D-1. Condition Types (Continued)

Condition Type	Definition
BAUTOPT BKUPMEMS BOOTMSG	Automatic Camp-on has been blocked Secondary nonvolatile backup failure occurred System reset exception condition occurred
COM CONTBUS CONTR	Common equipment failure Control bus failure Control processor failure
DENYDS1LPBK DENYDS3LPBK DS1-AIS DS1IF DS3FRMTMISMATCH DTLCH	Deny DS1 Loopback on DS3 Interface entity Deny DS3 Loopback on DS3 Interface entity DS1 Alarm Indication Signal detected DS1 Interface equipment failure DS3 format mismatch Data Latch error
EOR EXCPTN EXJIT EXPHR EXT EXTERR	End-of-Range Error Processor exception condition Excessive Jitter Excessive Phase Error Failure detected external to the DACS IV-2000 Error detected external to the DACS IV-2000
FERF FRD FRQOF RSNLN FSTO	Far-End Receive failure Security violation has occurred Frequency Offset error Frequency Synthesizer loss of energy Phase Lock Loop Fast Start Time-out
GP	The alarm reported on this line is the result of a specific alarm previously reported
ICTLR IDLE IHRER IMPROPBLK IMPROPRMVL INC	Interrupt Controller error Idle signal detected Interrupt Holding Register error Improper blank circuit pack Improper removal Incoming DS3 or DS1 failure

Table continued on next page.

Table D-1. Condition Types (Continued)

Condition Type	Definition
INHDS1FLPBK INHDS3FLPBK INHDS1LPBK	Inhibit response to far-end DS1 Loopback control Inhibit response to far-end DS3 Loopback control Inhibit DS1 Loopback on DS1 Interface or MUX circuit pack
INHDS3LPBK INHEC1LPBK INHVT1LPBK INHMSG	Inhibit DS3 Loopback on MUX circuit pack Inhibit EC-1 Loopback on SMUX circuit pack Inhibit VT1.5 Loopback on SMUX circuit pack Threshold crossing alert messages have been inhibited
INHSWPR INHSWWKG INT	Switch to protection equipment inhibited Switch to working equipment inhibited Internal hardware fault or failure
LERDF LOF LOP LOS	Line Error Detector failure Loss of frame Loss of pointer Loss of signal
MAN MINC MUX	Manually removed from service Multiple Incoming Multiplex equipment failure
NAUTOPORT	No Automatic Camp-on ports are available
OOF	Out of Frame
PFLCH PHSTP PROGFLT PSHLN	Phase/Frequency Readable Output Latch error Phase Step error Software fault or failure Phase Shifter Output loss of energy
RAMER RLSDS1LPBK RLSDS3LPBK ROMER RQSTDS1LPBK RQSTDS3LPBK RTV	RAM error Release DS1 Loopback on DS3 Interface entity Release DS3 Loopback on DS3 Interface entity ROM error Request DS1 Loopback on DS3 Interface entity Request DS3 Loopback on DS3 Interface entity Real-Time Violation
SBITFAIL	SBIT communications protocol Failure indicating that the far end is not responding to (acknowledging) near end SBIT protocol communication.
SLMF	Signal Label Match failure

Table continued on next page.

Table D-1. Condition Types (Continued)

Condition Type	Definition
SYNCCLK0	Detected failure is in side 0 Clock Hardware
SYNCCLK1	Detected failure is in side 1 Clock Hardware
SYNCFRNG	Synchronizer has made a transition into free-running mode
SYNCFST	Synchronizer has made a transition into fast-start mode
SYNCHLDOVR	Synchronizer has made a transition into holdover mode
SYPLN	Sync Pulse Generator loss of energy
TBCOLD	Time Base Oven Cold
TBIOER	Time Base Communication error
TBLEN	Time Base Strobe loss of energy
TBNDF	Time Base Strobe Energy Detector failure
TODC	Time-of-Day Clock
T-BER	Bit Error Rate threshold exceeded
T-BERL	Line Bit Error Rate threshold exceeded
T-BERP	Path Bit Error Rate threshold exceeded
TRBER	High Bit Error Rate on a Synchronization Timing Reference
TRMNER	Minor Bit Error Rate on a Synchronization Timing Reference
T-x	Threshold violation for Monitored Parameter x (see Monitored Parameters appendix for valid values for x)
UNFR	Unframed
URTER	UART error
X1LEN	Loss of energy on 1 ms Synchronizer Cross-couple
X3LEN	Loss of energy on 30 ms Synchronizer Cross-couple
XCOOL	Synchronizer Cross-couple Out-of-Lock error
XCRTV	Synchronizer Cross-couple Real-Time Violation error
XCSUM	Synchronizer Cross-couple Summary error
XFLRG	Synchronizer Cross-couple Fast Lock Range error
XFQOF	Synchronizer Cross-couple Frequency Offset error
XLKDN	Synchronizer Cross-couple Communication Link error
YEL	Carrier Group Alarm, Yellow, outgoing direction

## Alarm Conditions

Table D-2 contains additional information on valid alarm conditions that apply to the following commands and messages:

REPT ALM EC1	REPT ALM T1	REPT ALM T2	REPT ALM T3
REPT ALM VT1	REPT ALM EQPT	RTRV-ALM-EC1	RTRV-ALM-T1
RTRV-ALM-T2	RTRV-ALM-T3	RTRV-ALM-VT1	RTRV-ALM-EQPT
RTRV-COND-EC1	RTRV-COND-T1	RTRV-COND-T2	RTRV-COND-T3
RTRV-COND-VT1	RTRV-COND-EQPT	RTRV-ATTR-EC1	RTRV-ATTR-T1
RTRV-ATTR-T2	RTRV-ATTR-T3	RTRV-ATTR-VT1	RTRV-ATTR-EQPT
SET-ATTR-EC1	SET-ATTR-T1	SET-ATTR-T2	SET-ATTR-T3
SET-ATTR-VT1	SET-ATTR-EQPT		

Table D-2. Valid Alarm Conditions

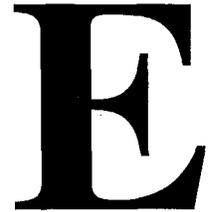
Alarm Type	Condition Type(s)	
	Near-End	Far-End
T1	LOS, LOF, T-BER, DS1-AIS, YEL	INC, MINC
T2	OOF	OOF
T3 (MUX1)	T-BER, LOS, OOF, AIS	
T3 (MUX2)	T-BER, LOS, OOF, AISFRAMED, AISUNFRAMED, IDLE, ALLDS2SOOF, DS3FRMTMISMATCH	INC, OOF, AIS, IDLE, YEL, SBITFAIL
EC1	LOS, LOF, LOP, T-BERL, SLMF, AISL, AISP, YEL, FERF	
VT1	LOP, AISP, YEL	
EQPT	CONTBUS, DLTCH, EOR, EXJIT, EXPHR, FRQOF, FSNLN, FSTO, ICTLR, IHRER, IMPROPBLK, IMPROPRMVL, INHSWPR, INHSWWKG, INT, LERDF, LSSIG, MAN, OOF, PFLCH, PHSTP, PSHLN, RAMER, ROMER, RTV, SYNCCLK0, SYNCCLK1, SYNCFRNG, SYNCFST, SYNCHLDOVER, SYPLN, TBCOLD, TBIOER, TBLN, TBND, TRBER, TRMNER, TODC, URTER, X1LEN, X3LEN, XCOOL, XCRTV, XCSUM, XFLRG, XFQOF, XLKDN	ACPWR, COM, DS1IF, MUX

Condition Types

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## User Privilege Codes (UCFC/UCAL)



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There are five functional categories of input commands within the DACS IV-2000, known as the User Community Functional Categories (UCFCs). These five categories are:

- **S** - Security Management and System Administration
- **T** - Test Access
- **M** - System Maintenance
- **P** - Provisioning
- **PM** - Performance Monitoring

Besides functional categories, it is desirable to have a finer granularity within each UCFC. This granularity is provided by the User Community Authorization Level (UCAL). Each UCFC is divided into five levels (1 through 5, with 5 representing the highest authorization level being the least restrictive). You are allowed to invoke commands in your designated UCAL level and those in numerically lower UCAL levels. For example, if you have a UCAL of 2, you can implement commands in the same UCFC category with a UCAL of 1 or 2. Thus, the UCAL of an input command gives the lowest user UCAL necessary to execute that command. The DACS IV-2000 denies an input command whenever the UCFC/UCAL pair of the input command does not match or have a lower UCAL component than the UCFC/UCAL pair of the user that input the command.

The functionality that a UID is allowed to perform is described by its assigned User Privilege Code (UCFC/UCAL pair). A single UID can have multiple UCFC/UCAL pairs.

User Privilege Codes (UCFC/UCAL)

All input commands are assigned to a fixed UCFC/UCAL pair at system initialization. Table E-1 groups the input commands by User Privilege Codes that are assigned at system initialization.

Table E-1. User Privilege Code Command Groupings

User Privilege Code	Input Command(s)
S1	ABT-CMD, ACT-USER, CANC-USER, ED-SECU-PID, ED-SECU-USER, RTRV-CMD-STAT, RTRV-ECHO-LINK, RTRV-HDR, RTRV-PRMTR-LINK, RTRV-NE, RTRV-STATE-EQPT
S2	RTRV-SECU-LINK, RTRV-SECU-USER
S3	ED-PRMTR-LINK, ED-NE, SET-SID
S4	CPY-MEM, ED-DATE, ED-SECU-LINK, INIT-SYS, RMV-LINK, RST-LINK, RTRV-SYSID
S5	ACT-ECHO-LINK, CANC-ECHO-LINK, DLT-SECU-AUD, DLT-SECU-USER, ENT-SECU-USER, RTRV-SECU-AUD
T1	ACT-USER, CANC-USER, RTRV-TACC- {EC1   T1   VT1}
T2	CONN-TACC- {EC1   T1   VT1}, DISC-TACC
T3,T4,T5	CHG-ACCMD- {EC1   T1   VT1}, CHG-TACC- {EC1   T1   VT1}, ENT-TSTPT- {EC1   T1   VT1}, RLS-TSTPT {EC1   T1   VT1}

Table continued on next page.

Table E-1. User Privilege Code Command Groupings (Continued)

User Privilege Code	Input Command(s)
M1	ACT-USER, CANC-USER, ENT-FAN-FILTER, OPR-ACO-ALL, RTRV-ALM-ALL, RTRV-ALM-COM, RTRV-ALM-EQPT, RTRV-ALM-LINK, RTRV-ALM-{EC1 T1 T2 T3 VT1}, RTRV-ATTR-EQPT, RTRV-ATTR-{EC1 T1 T2 T3 VT1}, RTRV-COND-EQPT, RTRV-COND-LINK, RTRV-COND-{EC1 T1 T2 T3 VT1}, RTRV-LPBK-{EC1 T1 T3 VT1}, RTRV-STATE-{EC1 T1 VT1}, RTRV-SYNCN
M2	DGN-DET-EQPT, EX-EQPT, RTRV-PATH-{EC1 T1 VT1}, TEST-CABLE, TEST-SW-CONTROL, TEST-TRMSN-T1 TEST-UNIT-CABLE
M3	OPR-LPBK-{EC1 T1 T3 VT1}, RLS-LPBK-{EC1 T1 T3 VT1}, SET-ATTR-EQPT, SET-ATTR-{EC1 T1 T2 T3 VT1}, SET-SYNCN
M4,M5	ALW-LPBK-{EC1 T1 T3 VT1}, ALW-SW-EQPT, ED-STATE-EQPT, INH-LPBK-{EC1 T1 T3 VT1}, INH-SW-EQPT, RMV-EQPT, RST-EQPT, SW-DX-EQPT, SW-TOPROTN-EQPT, SW-TOWKG-EQPT
P1	ACT-USER, CANC-USER, RTRV-EQPT, RTRV-{EC1 T1 T3 VT1}
P2	RTRV-CONF-{STS1 T1 VT1}, RTRV-CRS, RTRV-CRS-{STS1 T1 VT1}, RTRV-DROPCRS-{STS1 T1 VT1}
P3,P4,P5	DLT-CONF-{STS1 T1 VT1}, DLT-CRS-{STS1 T1 VT1}, DLT-EQPT, ED-PORT, ED-EQPT, ED-{EC1 T1 T3 VT1}, ENT-CONF-{STS1 T1 VT1}, ENT-CRS-{STS1 T1 VT1}, ENT-EQPT, ENT-ROLL-{STS1 T1 VT1}

Table continued on next page.

Table E-1. User Privilege Code Command Groupings (Continued)

User Privilege Code	Input Command(s)
PM1	ACT-USER, CANC-USER, RTRV-MSG- {EC1 VT1}, RTRV-PMCNFGRN- {EC1 T1 T3 VT1}, RTRV-PMODE- {EC1 VT1}, RTRV-PMSCHED- {EC1 T1 T3 VT1}, RTRV-SCANTH-NE, RTRV-TH- {EC1 T1 T3 VT1}
PM2	RTRV-PM- {EC1 T1 T3 VT1}
PM3	ALW-MSG- {EC1 VT1}, CONN-PM-T1, DISC-PM-T1, ENT-AUTOCMPN-T1, INH-MSG- {EC1 VT1}, INIT-REG- {EC1 T1 T3 VT1}, STA-SCANPM-T1, STP-SCANPM-T1
PM4	ALW-PMREPT-T1, ALW-PMREPT-T3, CPY-TH-T1, INH-PMREPT- {EC1 T1 T3 VT1}, SET-PMODE- {EC1 VT1}, SET-SCANTH-NE, SET-TH- {EC1 T1 T3 VT1}, SET-TH-NE
PM5	ED-NE, SCHED-PMREPT- {EC1 T1 T3 VT1}

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## Diagnostic Tests

# F

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## Diagnostic Tests

# F

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The following sections define the values of the Diagnostic Phases parameter used in the **DGN-DET-EQPT** command and **REPT DGNDDET EQPT** message entries.

The **DGN-DET-EQPT** command can be performed on the MC and the MC subentities while the MC is out of service (OOS). The MC subentities are: CPU, UI, MTC, SSC, PRI, SEC, ECI, SCI, and CILINK. For all other entities, the MC must be in service (IS) to perform the **DGN-DET-EQPT** command. The diagnostic test phases are executed in numerical order until either a test fails or all tests pass. After a test fails, no other tests are performed.

Each section presents a table containing three columns. The three columns contain the following information:

- The name of each test
- The hex code bit definition
- The conditions to be met for the test to be performed.

The *run conditions* are listed, if possible, in terms of provisioning and maintenance states of the entity in question. The term “any” means any state except ABS, BLK, or AVAIL. The term “provisioned” includes ACT, OOS, IS, POS, and STBY.

### ⇒ NOTE:

When the run condition is listed as the **RST-EQPT** command followed by some equipment entity, this indicates that the diagnostic is run only during the execution of this command with this particular equipment specified.

When used as input to the **DGN-DET-EQPT** command, multiple tests can be performed by OR-ing bits together. The default of all possible tests can also be

specified by setting all bits to one (that is, **H'FFFF**). In all cases, the state of the entities is checked to assure that the conditions listed for each test are met before performing a test.

The diagnostic output message indicates which tests were performed, which tests failed, or which tests were requested but not run in the Diagnostic Phases parameter.

### Converting Hexadecimal Values into Test Numbers for Diagnostic Procedures

The DACS IV-2000 performs up to 16 diagnostic tests on a major entity (Main Controller, SWIO, etc.) and subentities (CPU, SCI, etc.). The tests can be run autonomously or manually. If a single test fails, the system outputs a three-part message as follows:

```
HEXADECIMAL NUMBER:FAIL:EXPLANATION
```

For example,

```
H'0008:FAIL::"STBY CLKGN SELECTED"
```

The hexadecimal number (0008) is the phase value or the test number of diagnostics. In this example, hexadecimal H'0008 (the string H' indicates a hexadecimal value) is equal to binary 1000. The binary number has a one (1) in the fourth position to indicate that the fourth test failed. The message tells you that the fourth test of the diagnostics failed because the system selected a standby clock. The diagnostic tests for any entity are bit-defined for up to 16 possible bit positions.

If more than one test is run on an entity, it cannot be possible to perform all of the tests because of a conflict of run conditions. The system outputs a status message to indicate that diagnostics have passed but displays a hexadecimal code to show that some of the tests were not run. For example,

```
DGN DET EQPT::CPU:: COMPLD  
/* LOC:PHASES,RESULT,EXPECTED,MEASURED *  
"CPU:ff46, PASS,, "
```

The hexadecimal code, ff46, indicates which tests were run, or if there is not a test associated with a set binary bit. The following procedure explains how to convert the hexadecimal code value.

1. Convert the hexadecimal value into binary:

ff46 = 1111 111 0100 0110 (16 bit positions)

The Diagnostic Phases parameter (in the *DGN-DET-EQPT* command) is a four-digit number that is bit-defined. Each digit represents four bits, giving sixteen possible bit positions to specify test numbers. The bit positions are numbered from the rightmost bit (position 1) to the leftmost bit (position 16). For example, a one (1) in bit position six specifies test number six, with a phase value of H'0020. The table on the next page shows the binary equivalent value of the different test numbers, along with the corresponding phase value of the Diagnostic Phases parameter.

Test Number	Phase Value	Binary Equivalent Value
1	H'0001	0000 0000 0000 0001
2	H'0002	0000 0000 0000 0010
3	H'0004	0000 0000 0000 0100
4	H'0008	0000 0000 0000 1000
5	H'0010	0000 0000 0001 0000
6	H'0020	0000 0000 0010 0000
7	H'0040	0000 0000 0100 0000
8	H'0080	0000 0000 1000 0000
9	H'0100	0000 0001 0000 0000
10	H'0200	0000 0010 0000 0000
11	H'0400	0000 0100 0000 0000
12	H'0800	0000 1000 0000 0000
13	H'1000	0001 0000 0000 0000
14	H'2000	0010 0000 0000 0000
15	H'4000	0100 0000 0000 0000
16	H'8000	1000 0000 0000 0000

2. To determine which tests were run, the full range of the 16 different hexadecimal digits are used. The table below indicates the decimal, hexadecimal, and binary equivalents of the (decimal) digits 0-15.

Decimal Equivalent	Hex Equivalent	Binary Equivalent
0	0	0000
1	1	0001
2	2	0010
3	3	0011
4	4	0100
5	5	0101
6	6	0110
7	7	0111
8	8	1000
9	9	1001
10	A	1010
11	B	1011
12	C	1100
13	D	1101
14	E	1110
15	F	1111

In the example, the hexadecimal value H' FF46 is converted to the binary string, 1111 1111 0100 0110. This binary string specifies tests 2, 3, 7, 9, 10, 11, 12, 13, 14, 15, and 16. This is because there is a one (1) in bit positions 2, 3, 7, 9, 10, 13, 14, 15, and 16.

3. Compare the binary number to the list of diagnostic tests for the entity or subentity being tested. In this example, the tests are for the CPU. The 16 bit positions correspond to 16 test numbers starting from the right. Not all entities have 16 tests. The CPU has only 9 diagnostic tests so bit positions 10 through 16 are set to one (1).

Test Name	Test Number	Run Condition
RAM	1	MC OOS or CC STBY
ROM	2	CC ACT or STBY
Timer	3	ACT or STBY
DMA Controller	4	(RST-EQPT MC or CC only)
LAN Controller	5	(RST-EQPT MC or CC only)
Interrupt	6	MC OOS or CC STBY
Acknowledge	7	ACT or STBY
LED	8	MC OOS or CC STBY
Mate On-line Leads	9	ACT or STBY

4. Review the hexadecimal and binary numbers again:

ff46 = 1111 1111 0100 0110

The first 9 digits of the binary number (starting from the right) correspond to the 9 CPU diagnostic tests. A value of one (1) indicates either:

- The test was run
- That the test doesn't exist for the specified entity.

A value of H' FFFF specifies that all appropriate tests were run.

5. To determine which tests were run, look at the first 8 digits of the binary value (starting from the right). For example,

Test Name	Test Number	Binary Value	Result
RAM	1	0	Not run
ROM	2	1	Run
Timer	3	1	Run
DMA Controller	4	0	Not run
LAN Controller	5	0	Not run
Interrupt	6	0	Not run
Acknowledge	7	1	Run
LED	8	0	Not run
Mate Online Leads	9	1	Run

## Diagnostic Tests

---

### Main Controller Diagnostics

---

Test Name	Phase Value	Run Conditions
CPU-0	H'0001	CC-0 ACT or STBY
CPU-1	H'0002	CC-1 ACT or STBY
MTC-0	H'0004	CC-0 ACT or STBY
MTC-1	H'0008	CC-1 ACT or STBY
SSC-0	H'0010	CC-0 ACT or STBY
SSC-1	H'0020	CC-1 ACT or STBY
PRI-1	H'0040	PRI-1 IS or OOS
PRI-2	H'0080	PRI-2 IS or OOS
SEC	H'0100	SEC IS or OOS
UI	H'0200	MC IS or OOS
SCI-1	H'0400	MC IS or OOS
SCI-2	H'0800	MC IS or OOS
ECI-1	H'1000	ECI-1 IS
ECI-2	H'2000	ECI-2 IS

---

### CC Diagnostics

---

Test Name	Phase Value	Run Conditions
CPU	H'0001	CC ACT or STBY
MTC	H'0002	CC ACT or STBY
SSC	H'0004	CC ACT or STBY

---

**RST-EQPT : :CC- {0,1}** first downloads code to CPU-{0,1} and then runs diagnostics on the CPU, MTC and SSC circuit packs. A REPT DGN DETEQPT message is issued if the diagnostics fail. This is the only way to diagnose these circuit packs when CC-{0,1} is OOS.

### CPU Diagnostics

---

Test Name	Phase Value	Run Conditions
RAM	H'0001	MC OOS or CC STBY
ROM	H'0002	CC ACT or STBY
Timer	H'0004	ACT or STBY
DMA Controller	H'0008	(RST-EQPT MC or CC only)
LAN Controller	H'0010	(RST-EQPT MC or CC only)
Interrupt	H'0020	MC OOS or CC STBY
Acknowledge	H'0040	ACT or STBY
LED	H'0080	MC OOS or CC STBY
Mate On-line Leads	H'0100	ACT or STBY

---

### ECI Diagnostics

---

Test Name	Phase Value	Run Conditions
RAM	H'0001	(RST-EQPT ECI only)
ROM	H'0002	ECI IS
Timer	H'0004	ECI IS
DMA Controller	H'0008	(RST-EQPT ECI only)
LAN Controller	H'0010	(RST-EQPT ECI only)
Timer Chip	H'0020	ECI IS
Acknowledge	H'0040	ECI IS
Time of Day Clock	H'0080	ECI IS

---

RST-EQPT: :ECI- {1, 2} first downloads code to ECI-{1,2}, and then runs diagnostics. A REPT DGN DETEQPT message is issued if the diagnostics fail. This is the only way to diagnose an ECI pack when it is OOS.

### CILINK Diagnostics

---

Test Name	Phase Value	Run Conditions
Internal loopback	H'0001	CILINK OOS

---

This test fails on an X.25 link that is not connected to an external modem since a receive clock is required. A NULL modem or modem eliminator can be used for this purpose.

## Diagnostic Tests

---

### SSC Diagnostics

---

Test Name	Phase Value	Run Conditions
RAM	H'0001	CC ACT or STBY
ROM	H'0002	CC ACT or STBY
QUART	H'0004	CC ACT or STBY
Acknowledge	H'0008	CC ACT or STBY
FIFO	H'0010	CC ACT or STBY
Command/Response	H'0020	CC ACT or STBY
Ports		
EEPROM	H'0040	CC ACT or STBY
EECKID	H'0080	CC ACT or STBY
LAN Controller	H'0100	CC ACT or STBY
DMA Controller	H'0200	CC ACT or STBY
PBIC Verify	H'0400	CC ACT or STBY
SSBC Verify	H'0800	CC ACT or STBY
CIGPRG Verify	H'1000	CC ACT or STBY
Interrupt	H'2000	CC ACT or STBY
EECKSUM	H'4000	CC ACT or STBY

---

### PRI Diagnostics

---

Test Name	Phase Value	Run Conditions
Acknowledge	H'0001	PRI IS or OOS
SSS Bus Parity	H'0002	PRI IS or OOS
SRAM	H'0004	PRI IS or OOS
ADC	H'0008	PRI IS or OOS
SCSI Controller	H'0010	PRI IS or OOS
FIFO	H'0020	PRI IS or OOS
Interrupt	H'0040	PRI IS or OOS
Disk Read/Write	H'0080	PRI IS or OOS
Disk Self Test	H'0100	PRI IS or OOS
Disk Buffer Test	H'0200	PRI IS or OOS
Disk SCSI Parity	H'0400	PRI IS or OOS
Disk Bad Block	H'0800	PRI IS or OOS
EEPROM	H'1000	PRI IS or OOS
EECKID	H'2000	PRI IS or OOS
EECKSUM	H'4000	PRI IS or OOS

---

Disk test fails if the disk is not powered up.

### SEC Diagnostics

---

Test Name	Phase Value	Run Conditions
Acknowledge	H'0001	SEC IS or OOS
SSS Bus Parity	H'0002	SEC IS or OOS
SRAM	H'0004	SEC IS or OOS
ADC	H'0008	MC OOS and SEC restored
SCSI Controller	H'0010	SEC IS or OOS
FIFO	H'0020	SEC IS or OOS
Interrupt	H'0040	SEC IS or OOS
Disk Read/Write	H'0080	SEC IS or OOS
Disk Self Test	H'0100	SEC IS or OOS
Disk Buffer Test	H'0200	SEC IS or OOS
Disk SCSI Parity	H'0400	SEC IS or OOS
Disk Bad Block	H'0800	SEC IS or OOS
EEPROM	H'1000	SEC IS or OOS
EECKID	H'2000	SEC IS or OOS
EECKSUM	H'4000	SEC IS or OOS

---

SEC diagnostics take up to 12 minutes to complete. Disk test fails if the disk is not powered up.

### MTC Diagnostics

---

Test Name	Phase Value	Run Conditions
Hardware ID	H'0001	ACT or STBY
DTACK	H'0002	ACT or STBY
LCA Configuration	H'0004	MC OOS or CC STBY
LCA Checksum	H'0008	ACT or STBY
Interrupt	H'0010	MC OOS or CC STBY
Sanity Register	H'0020	MC OOS or CC STBY
Sanity Inhibit	H'0040	MC OOS or CC STBY
Operational Error	H'0080	MC OOS and CC ACT
LAN Register	H'0100	MC OOS or CC STBY
Alarm Generation	H'0200	CC STBY
Relay Register	H'0400	CC STBY
Remote and Local Alarm	H'0800	CC STBY
Remote Only Alarm	H'1000	CC STBY
Remote ID	H'2000	CC STBY
Unit Reset Register	H'4000	CC STBY

---

Comments in the measured data field when the diagnostic result is FAIL:  
H'xxxx:FAIL::\"Error Code{xxx}\"

## Diagnostic Tests

---

### UI Diagnostics

---

Test Name	Phase Value	Run Conditions
DTACK	H'0001	MC IS or OOS
Interrupt	H'0002	MC OOS
Sanity	H'0004	MC OOS
LAN	H'0008	MC OOS

---

### SCI Diagnostics

---

Test Name	Phase Value	Run Conditions
Register	H'0001	CLKGNs good
Acknowledge	H'0002	MC IS or OOS
Counter	H'0004	MC OOS
8279	H'0008	MC OOS
Board Exercise	H'0010	MC OOS
Interrupt	H'0020	MC OOS

---

### CLKGN2 Diagnostics

---

Test Name	Phase Value	Run Conditions
SCI Interface	H'0001	STBY
Board Exercise	H'0002	STBY
SCI Interrupt	H'0004	STBY
Switch Clock Detection Tests	H'0008	ACT or STBY

---

Comments in the measured data field when the diagnostic result is FAIL:

H'0008:FAIL::\"(SWIO,SWCS)-(1-32) DOES NOT DETECT CLKGN-(0,1)\"

### CLKGN3 Diagnostics

Test Name	Phase Value	Run Conditions
SCI Interface	H'0001	STBY
Board Exercise	H'0002	STBY
SCI Interrupt	H'0004	STBY
Switch Clock Detection Tests	H'0008	ACT or STBY
Gap Sync Error	H'0010	ACT or STBY
SYNC State Test	H'0020	ACT or STBY

Comments in the measured data field when the diagnostic result is FAIL:

```
H'0008:FAIL::\"(SWIO,SWCS)-{1-32} DOES NOT DETECT CLKGN-{0,1}\"
H'0010:FAIL::\"GSYNC FAILURE CLKGN-{0,1}\"
H'0020:FAIL::\"NO SYNC ACTIVE\"
```

### SWCS Diagnostics

Test Name	Phase Value	Run Conditions
SCI interface	H'0001	any
SCI interrupt	H'0002	any
Memory	H'0004	FLT
System clock tests	H'0008	(no traffic or FLT)
Parity from SWIOs	H'0010	(no traffic or FLT) and a SWIO good
Parity to SWIOs	H'0020	a SWIO good

Where:

*no traffic* means all cross-connections are idle on the associated circuit pack (for example, when the circuit pack is protected). This can only be checked by exhaustive **RTRV-PATH- (STS1 | T1 | VT1)** commands.

*good* means not ABS and not FLT.

System clock tests include: selecting active clock, detecting standby clock, and clock detector tests.

Input parity tests include a parity detector test.

Parity tests are run between a SWCS and all known good SWIOs. If a SWIO is FLT, ABS, or not provisioned, it is skipped.

Comments in the measured data field when the diagnostic result is FAIL:

```
H'0008:FAIL::\"STBY CLKGN SELECTED\"
H'0008:FAIL::\"STBY CLKGN NOT DETECTED\"
H'0008:FAIL::\"CLOCK ENERGY DETECTOR BAD\"
H'0010:FAIL::\"PARITY FROM SWIO-{1-32}\"
H'0020:FAIL::\"PARITY TO SWIO-{1-32}\"
```

**SWIO Diagnostics**

---

Test Name	Phase Value	Run Conditions
SCI interface	H'0001	any
SCI interrupt	H'0002	any
Memory	H'0004	AVAIL, EQPD, or FLT
System clock tests	H'0008	(no traffic or FLT)
Parity from SWCSs	H'0010	(no traffic or FLT) and a SWCS good
Parity to SWCSs	H'0020	a SWCS good
Clock from CLKDRs	H'0040	(no traffic or FLT) and a UC is IS
Parity to SWIF/MUXs	H'0080	a SWIF/MUX good
Parity from SWIF/MUXs	H'0100	(no traffic or FLT) and a SWIF MUX good

Where:

*no traffic* means not ACT (for example, protected), not COMB, and not supplying QRSS.

*good* means not ABS, not BLK, not FLT, and the UC is in service.

System clock tests include: selecting active clock, detecting standby clock if the standby clock is good, and clock detector tests.

Input parity tests include a parity detector test.

Clock tests include clock detector tests.

Parity tests are run between a SWIO and all of the SWIF/MUX circuit packs that it is connected to. If a SWIF/MUX is FLT, ABS, or not provisioned, it is skipped.

Also, parity tests are run between a SWIO and all known good SWCSs. If a SWCS is FLT or ABS it is skipped.

Comments in the measured data field when the diagnostic result is FAIL:

```
H'0008:FAIL::\"STBY CLKGN SELECTED\"
H'0008:FAIL::\"STBY CLKGN NOT DETECTED\"
H'0008:FAIL::\"CLOCK ENERGY DETECTOR BAD\"
H'0010:FAIL::\"PARITY FROM SWCS-{1-32}\"
H'0020:FAIL::\"PARITY TO SWCS-{1-32}\"
H'0040:FAIL::\"CLOCK FROM CLKDR-{1-32}-{1-4}\"
H'0080:FAIL::\"PARITY TO SWIF-{1-32}-{1-8,P}\"
H'0080:FAIL::\"PARITY TO (MUX-{1-32}-{1-31}, MUXP-{1-32})\"
H'0100:FAIL::\"PARITY FROM SWIF-{1-32}-{1-8,P}\"
H'0100:FAIL::\"PARITY FROM (MUX-{1-32}-{1-31}, MUXP-{1-32})\"
```

### UC Diagnostics

---

Test Name	Phase Value	Run Conditions
RAM	H'0001	UC IS
ROM	H'0002	UC IS
DUART	H'0004	UC IS
DMA	H'0008	(RST-EQPT UC only)
Version ID	H'0010	UC IS

---

### DS3PM Diagnostics

---

Test Name	Phase Value	Run Conditions
RAM	H'0001	DS3PM IS
ROM	H'0002	DS3PM IS
DUART	H'0004	DS3PM IS
DMA	H'0008	(RST-EQPT DS3PM only)
Version ID	H'0010	DS3PM IS

---

**SMUX1 and SMUXP1 Diagnostics**

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
ROM Checksum	H'0002	EQPD or provisioned
RAM	H'0004	EQPD or provisioned
LCA	H'0008	EQPD or provisioned
Bus Error	H'0010	EQPD or provisioned
TRBP	H'0020	EQPD or provisioned
STSP	H'0040	EQPD or provisioned
VIPPR	H'0080	EQPD or provisioned
Bipolar Transmit and +5 V	H'0100	EQPD or provisioned
RSM30	H'0200	EQPD or provisioned
XSM30	H'0400	EQPD or provisioned
DPLL	H'0800	EQPD or provisioned
VITAL	H'1000	EQPD or provisioned
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"  
H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

### MUX1 and MUXP1 Diagnostics

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
PIF register	H'0002	EQPD or provisioned
Type and Version	H'0004	EQPD or provisioned
M14	H'0008	not ACT
M12	H'0010	not ACT
M23	H'0020	not ACT
Oscillator	H'0040	not ACT
Bipolar Transmit and 5 V Relay	H'0080	not ACT
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

Where:

*not ACT* includes the state OOS-FLT (protected).

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"

H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

**MUX2 Diagnostics**

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
ROM	H'0002	EQPD or provisioned
RAM	H'0004	EQPD or provisioned
LCA	H'0008	EQPD or provisioned
Bus Error	H'0010	EQPD or provisioned
M14	H'0020	not ACT
M12	H'0040	not ACT
M23	H'0080	not ACT
Bipolar Transmit and 5 V Relay	H'0100	not ACT
HSCX (LAPD)	H'0200	not ACT
Duart	H'0400	not ACT
Loopback, M13 format	H'0800	OOS-MTCE or OOS-FLT (protected) and M13 format
Loopback, C bit format	H'1000	OOS-MTCE or OOS-FLT (protected) and C bit format
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

Where:

*not ACT* includes the state OOS-FLT (protected).

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"  
H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

### MUXP2 Diagnostics

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
ROM	H'0002	EQPD or provisioned
RAM	H'0004	EQPD or provisioned
LCA	H'0008	EQPD or provisioned
Bus Error	H'0010	EQPD or provisioned
M14	H'0020	STBY or OOS-FLT
M12	H'0040	STBY or OOS-FLT
M23	H'0080	STBY or OOS-FLT
Bipolar Transmit and 5 V Relay	H'0100	STBY or OOS-FLT
HSCX (LAPD)	H'0200	STBY or OOS-FLT
Duart	H'0400	STBY or OOS-FLT
Loopback, M13 format	H'0800	STBY or OOS-FLT
Loopback, C bit format	H'1000	STBY or OOS-FLT
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

---

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"

H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

**PMGR1 Diagnostics**

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
ROM	H'0002	EQPD or provisioned
RAM	H'0004	EQPD or provisioned
Duart	H'0008	EQPD or provisioned
M14	H'0010	not ACT
HSCC Internal Register	H'0020	not ACT
HSCC Internal Loopback	H'0040	not ACT
Xceiver Register	H'0080	not ACT
Xceiver COFA	H'0100	not ACT
Xceiver RFA	H'0200	not ACT
Xceiver Rcv Alarm	H'0400	not ACT
Xceiver Xmt Alarm	H'0800	not ACT
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"

H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

**SWIF1 Diagnostics**

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
PIF register	H'0002	EQPD or provisioned
Type and Version	H'0004	EQPD or provisioned
M14	H'0008	not ACT and not supplying QRSS
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

---

Where:

*not ACT* includes the state OOS-FLT (protected).

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"

H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

**SWIF2 Diagnostics**

---

Test Name	Phase Value	Run Conditions
Serial Link	H'0001	EQPD or provisioned
ROM	H'0002	EQPD or provisioned
RAM	H'0004	EQPD or provisioned
Duart	H'0008	EQPD or provisioned
M14	H'0010	not ACT and not supplying QRSS
HSCC Internal Register	H'0020	not ACT and not supplying QRSS
HSCC Internal Loopback	H'0040	not ACT and not supplying QRSS and both DS1IFs are present
Xceiver Register	H'0080	not ACT and not supplying QRSS and both DS1IFs are present
Xceiver COFA	H'0100	not ACT and not supplying QRSS and both DS1IFs are present
Xceiver RFA	H'0200	not ACT and not supplying QRSS
Xceiver Rcv Alarm	H'0400	not ACT and not supplying QRSS
Xceiver Xmt Alarm	H'0800	not ACT and not supplying QRSS
Parity from SWIO	H'2000	EQPD or provisioned and a SWIO is good
Detected by Fault Isolation	H'4000	EQPD or provisioned
Parity to SWIO	H'8000	EQPD or provisioned and a SWIO is good

Where:

*not ACT* includes the state OOS-FLT (protected).

Comments in the measured data field when the diagnostic result is FAIL:

H'2000:FAIL::\"PARITY FROM SWIO-{1-32}\"

H'8000:FAIL::\"PARITY TO SWIO-{1-32}\"

**DS1IF and DS1IP Diagnostics**

---

Test Name	Phase Value	Run Conditions
PIF ID register	H'0001	any
PIF scan register	H'0002	any
Pack ID	H'0004	any
Version ID/Relay Power	H'0008	any
GPIO	H'0010	not ACT and not supplying QRSS
DS1 Alarm	H'0020	not ACT and not supplying QRSS
Loop back test	H'0040	not ACT and not supplying QRSS
Idle and Blue signal	H'0080	not ACT and not supplying QRSS
Test data insert/det	H'0100	not ACT and not supplying QRSS
Chip data register	H'0200	not ACT and not supplying QRSS
Event count overrun	H'0800	not ACT and not supplying QRSS
Scan complete interrupt	H'1000	not ACT and not supplying QRSS
BPV counter interrupt	H'2000	not ACT and not supplying QRSS
Detected by Fault Isolation	H'4000	any

---

Where:

*not ACT* includes something which is protected.

### DS1RY Diagnostics

Test Name	Phase Value	Run Conditions
Input Relays	H'0001	See Below

Comments in the measured data field when the diagnostic result is FAIL:  
H'0001:FAIL::\"DS1IF-{1-32}-{1A-8B} Channel {1-14}\"

This diagnostic test is only valid for ports with good signals. If an undetected failure exists in the DS1RY associated with the protection group and manual diagnostics are run on a second DS1RY, the second DS1RY may be failed (even if it is good). In this case, after you replace the good second circuit pack, and find that it fails again, you must run diagnostics on the DS1RY associated with the protection group.

If the cable(s) that make up the protection bus are bad or missing, and diagnostics are run on a *service* DS1RY associated with that cable(s), the service DS1RY fails the test.

### MUXPS Diagnostics

Test Name	Phase Value	Run Conditions
Input Relays	H'0001	See Below

This diagnostic test is only valid for ports with good signals. If the cable(s) that make up the protection bus are bad or missing, the MUXPS fails the test.

### SYNC Diagnostics

Test Name	Phase Value	Run Conditions
DPLL	H'0001	See Below
TBS3	H'0002	See Below
XCPL	H'0004	Mate SYNC ACT (See Below)

DPLL must be present and provisioned and TBS3 must be provisioned to run any phase.

### DPLL Diagnostics

Test Name	Phase Value	Run Conditions
ROM Checksum	H'0001	See Below
RAM	H'0002	See Below
Phase/Frequency Latch	H'0004	See Below
Frequency Synthe- sizer	H'0008	See Below
Phase Shifter	H'0010	See Below
Sync Pulse	H'0020	See Below
TB Strobe	H'0040	See Below
Interrupt Controller	H'0080	See Below
Interrupt Holding Register	H'0100	See Below
UART	H'0200	See Below
Data Latch	H'0400	See Below
XCPL 1 ms Loss- of-Energy	H'0800	Mate SYNC ACT (See Below)
XCPL 30 ms Loss- of-Energy	H'1000	Mate SYNC ACT (See Below)
XCPL Communi- cation Link	H'2000	Mate SYNC ACT (See Below)

DPLL must be present and provisioned to run any phase.

### TBS3 Diagnostics

Test Name	Phase Value	Run Conditions
TB Clock Loss-of- Energy	H'0001	See Below
TB Communication	H'0002	See Below
TB Oven Temp	H'0004	Reserved for future use (See Below)
TB Oscillator Type	H'0008	See Below

DPLL must be present and provisioned and TBS3 must be present to run any phase.

**DS1TX Diagnostics**

---

<b>Test Name</b>	<b>Phase Value</b>	<b>Run Conditions</b>
TX Communication	H'0001	See Below
Common Circuitry	H'0002	See Below
TX 1 Hardware	H'0004	See Below
TX 2 Hardware	H'0008	See Below

---

DPLL must be present and provisioned, DS1TX must be provisioned and either OOS-MTCE or OOS-FLT..

For DS1TX, both the common hardware circuitry and the port hardware circuitry for both ports are tested. For TX ports, the hardware circuitry common to both TX ports is tested in addition to the specified port hardware.

---

## Monitored Parameters

# G

---

### Contents

- Full-Time, Camp-on and Line Monitored Parameters G-2
- Scan Monitored Parameters G-4
- Monitored Parameters For PSET#2 (TR820) Counters G-5
- Monitored Parameters For PSET#1 (CB149) Counters G-6
- SONET Performance Monitoring Parameters G-7

## Contents

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## Monitored Parameters

# G

---

This appendix contains tables for the following types of monitored parameters:

- Full-Time and Camp-on parameters (Tables G-1 and G-2)
- Scan parameters (Tables G-3 and G-4)
- Parameters for PSET#2 (TR820) Counters (Table G-5)
- Parameters for PSET#1 (CB149) Counters (Table G-6)
- Parameters for STS-1 and VT1.5 (Table G-7)
- Threshold values for STS-1 and VT1.5 parameters (Table G-8)



### NOTE:

The ranges specified in this appendix for monitored parameters are specified according to requirements. The actual physical register sizes permit these values to be exceeded.

Monitored Parameters

**Full-Time, Camp-on and Line Monitored Parameters**

**Table G-1. Threshold Value Ranges for Full-Time, Camp-On, and Line DS1 Performance Monitoring**

Monitored Parameter	Far-End*			Near-End		
	15 Min	Hourly	Daily	15 Min	Hourly	Daily
<b>Full Time (SWIF2 Based) and Camp-on (PMGR Based)</b>						
CVP	0-2097152	0-8388608	0-134217728	0-2097152	0-8388608	0-134217728
ESP	0-900	0-3600	0-65535	0-900	0-3600	0-65535
BESP	0-900	0-3600	0-65535	0-900	0-3600	0-65535
SESP	0-900	0-3600	0-65535	0-900	0-3600	0-65535
OOFS	-	-	-	0-900	0-3600	0-65535
DM	0-15	0-60	0-1440	0-15	0-60	0-1440
UAS	0-900	0-3600	0-65535	0-900	0-3600	0-65535
SEFS	0-900	0-3600	0-65535	-	-	-
CSS	0-900	0-3600	0-65535	-	-	-
<b>Line (DS1IF Based)</b>						
CVL†	-	-	-	0-2097152	0-8388608	0-134217728
ESL†	-	-	-	0-900	0-3600	0-65535
SESL†	-	-	-	0-900	0-3600	0-65535

\* Far-end parameters are only applicable to Extended Super Frame (ESF) DS1 signals with ports provisioned for FENDNTE = ANSI.

† Only applicable for DS1 signals terminating on DS1Interface Modules.

Table G-2. Default Thresholds for Full-Time, Camp-On, and Line DS1 Performance Monitoring

Monitored Parameter	DS1 Framing Format							
	Extended Super Frame				Super Frame		Unframed	
	Far-End*		Near-End		15 Min and Hourly	Daily	15 Min and Hourly	Daily
	15 Min and Hourly	Daily	15 Min and Hourly	Daily				
<b>Full Time (SWIF2 Based) and Camp-on (PMGR Based)</b>								
CVP	53184	132960	53184	132960	6615	16540	-	-
ESP	259	648	259	648	38	95	-	-
BESP	100	600	100	600	19	90	-	-
SESP	40	100	40	100	11	27	-	-
OOFS	-	-	7	17	7	17	-	-
DM	15	360	15	360	-	-	-	-
UAS	10	10	10	10	10	10	-	-
SEFS	7	17	-	-	-	-	-	-
CSS	7	17	-	-	-	-	-	-
<b>Line (DS1IF Based)</b>								
CVL†	-	-	53360	133400	53360	133400	53360	133400
ESL†	-	-	259	648	259	648	259	648
SESL†	-	-	40	100	40	100	40	100

\* Far-end parameters are only applicable to Extended Super Frame (ESF) DS1 signals with ports provisioned for FENDNTE = ANSI.

† Only applicable for DS1 signals terminating on DS1Interface Modules.

Monitored Parameters

Scan Monitored Parameters

Table G-3. Threshold Value Ranges for Scan (PMGR Based) DS1 Performance Monitoring

Monitored Parameter	Far-End*			Near-End		
	15 Min	Hourly	Daily	15 Min	Hourly	Daily
CVP	-	-	-	0-65535	0-65535	0-65535
ESP	0-900	0-3600	0-65535	0-900	0-3600	0-65535
SESP	0-900	0-3600	0-65535	0-900	0-3600	0-65535
OOFS	-	-	-	0-900	0-3600	0-65535
SEFS	0-900	0-3600	0-65535	-	-	-

\* Far-end parameters are only applicable to Extended Super Frame (ESF) DS1 signals with ports provisioned for FENDNTE = ANSI.

Table G-4. Default Thresholds for Scan (PMGR Based) DS1 Performance Monitoring

Monitored Parameter	DS1 Framing Format					
	Extended Super Frame				Super Frame	
	Far-End*		Near-End			
	15 Min and Hourly	Daily	15 Min and Hourly	Daily	15 Min and Hourly	Daily
CVP	-	-	1772	4432	177	443
ESP	8	21	8	21	1	3
SESP	1	3	1	3	1	3
OOFS	-	-	1	2	1	2
SEFS	1	2	-	-	-	-

\* Far-end parameters are only applicable to Extended Super Frame (ESF) DS1 signals with ports provisioned for FENDNTE = ANSI.

**Monitored Parameters For PSET#2 (TR820)  
 Counters**

All PSET#2 Parameters are monitored for line and path errors. Separate counters must be maintained to tally these errors. The sizes of the counters are the same for both line and path errors. For example, the parameter ES has the counters for Path Errored Seconds (denoted ESP) and Line Errored Seconds (denoted ESL).

**Table G-5. Monitored Parameters For PSET#2 (TR820) Counters — Register Size and Default Values**

Parameter	Interval					
	Current 15 Minutes		Current 1 Hour* and Last 24 1-Hour Intervals		Current Day* and Last 7 Days of daily totals	
	Default	Range	Default	Range	Default	Range
Coding Violations (CV)	4000	0-8458200	16100	0-33832800	386500	0-811987200
Errored Seconds (ES)	40	0-900	40	0-3600	90	0-65535
Severely Errored Seconds (SES)	20	0-900	20	0-3600	60	0-65535
Out-of-Frame Seconds (OOFs)	10	0-900	10	0-3600	30	0-65535
Unavailable Seconds (UAS)	30	0-900	30	0-3600	90	0-65535

\* Current hour is the sum of 15-minute intervals beginning on the hour and current day is the sum of hourly intervals beginning at midnight.

Monitored Parameters

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**Monitored Parameters For PSET#1 (CB149)**

**Counters**

---

Only path errors are monitored for PSET#1 parameters.

**Table G-6. Monitored Parameters For PSET#1 (CB149) Counters — Register Size and Default Values**

Parameter	Interval			
	Current 15 Minutes and Last 96 15-minute intervals		24-Hour Total <sup>†</sup>	
	Default	Range	Default	Range
Number of Block Errors (BEC)*	4000	0-8458200	386500	0-811987200
Errored Seconds A (TPA)	30	0-900	90	0-65535
Errored Seconds B (TPB)	30	0-900	90	0-65535
Errored Seconds C (TPC)	20	0-900	60	0-65535
Out-of-Frame Seconds (OOFs)	10	0-900	30	0-65535
Unavailable Seconds (UAS)	30	0-900	90	0-65535

\* MUX2 circuit pack only.

† The 24-hour total is the sum of the last 96 15-minutes rolling.

---

## SONET Performance Monitoring Parameters

Table G-7. STS-1 and VT1.5 Performance Monitored Parameters

Monitored Parameter		STS-1			VT1.5
		Section	Line	Path	Path
Near-End	Severely Errored Frame Seconds (SEFS)	✓	-	-	-
	Loss-of-Signal Seconds (LOSS)	✓	-	-	-
	Coding Violations (CV)	-	✓	✓	✓
	Errored Seconds (ES)	-	✓	✓	✓
	Errored Seconds A (ESA)	-	✓	✓	✓
	Errored Seconds B (ESB)	-	✓	✓	✓
	Severely Errored Seconds (SES)	-	✓	✓	✓
	AIS Seconds (AISS)	-	✓	-	-
	AIS/Loss-of-Pointer Seconds (ALS)	-	-	✓	✓
	Unavailable Seconds (UAS)	-	✓	✓	✓
Far-End	Coding Violations (CV)	-	-	✓	-
	Errored Seconds (ES)	-	-	✓	-
	Errored Seconds A (ESA)	-	-	✓	-
	Errored Seconds B (ESB)	-	-	✓	-
	Severely Errored Seconds (SES)	-	-	✓	-
	Unavailable Seconds (UAS)	-	-	✓	-

**Note:** ✓ means monitoring is available for the parameter specified.

Table G-8. Threshold Values for STS-1 and VT1.5 Performance Monitoring

Parameter Name	Accumulation Interval			
	15 Min		Day	
	Default	Range	Default	Range
<b>STS-1 Section Performance Monitoring Parameters (Near-End)</b>				
SEFS	10	0-900	100	0-86400
LOSS	10	0-900	100	0-86400
<b>STS-1 Path and Line Performance Monitoring Parameters (Near-End)</b>				
CV	4666	0-46660	447900	0-447900
ES	65	0-900	648	0-86400
ESA	65	0-900	648	0-86400
ESB	65	0-900	648	0-86400
SES	10	0-900	100	0-86400
AISS (line only)	10	0-900	100	0-86400
ALS (path only)	10	0-900	100	0-86400
UAS	10	0-900	100	0-86400
<b>STS-1 Path Performance Monitoring Parameters (Far-End)</b>				
CV	4666	0-46660	447900	0-447900
ES	65	0-900	648	0-86400
ESA	65	0-900	648	0-86400
ESB	65	0-900	648	0-86400
SES	10	0-900	100	0-86400
UAS	10	0-900	100	0-86400
<b>VT1.5 Path Performance Monitoring (Near-End)</b>				
CV	156	0-16383	14930	0-1048575
ES	65	0-900	648	0-86400
ESA	65	0-900	648	0-86400
ESB	65	0-900	648	0-86400
SES	10	0-900	100	0-86400
ALS	10	0-900	100	0-86400
UAS	10	0-900	10	0-86400

---

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---

## Command Verification

# H

---

This appendix lists the input commands that require verification. Below each command is the warning messages that are displayed prior to the prompt that requires confirmation. If compound addressing is used, specific warning messages indicating that multiple equipment or facilities can be affected are displayed.

### ALW-LPBK-T1:[a]:b:[c]::[d];

Parameter Options	Warning Message
(d) FEND	WARNING: Executing this command allows DS1 loopbacks to be executed from the far-end
(d) BOTH	WARNING: Executing this command allows DS1 loopbacks to be executed from the far-end and near-end

**ALW-LPBK-T3:[a]:b:[c]::[d];**

---

Parameter Options	Warning Message
(d) FEND	WARNING: Executing this command allows DS3 loopbacks to be executed from the far-end
(d) BOTH	WARNING: Executing this command allows DS3 loopbacks to be executed from the far-end and near-end

---

**CHG-ACCMD-{EC1 | T1 | VT1}1:[a]:b:[c]:[d];**

---

Parameter Options	Warning Message
(d) TEST MODE	WARNING: If SPLT or LOOP is specified, executing this command may disrupt service for these ports.

---

**CONN-TACC-{EC1 | T1 | VT1}:[a]:b,c,[d]:[e]::[f]:[g];**

---

Parameter Options	Warning Message
(f) TEST MODE	WARNING: If SPLT or LOOP is specified, executing this command may disrupt service for these ports.

---

**CPY-MEM:[a]::[b]:c,d,e;**

Parameter Options			Warning Message
(c) FROM	(d) TO	(e) CLASS	
PRI	SEC	DBASE	WARNING: Backup copy of database on PRI will be made on SEC. Any current database on the SEC will be overwritten. This command takes up to 5 minutes to complete.
PRI	SEC	PROG	WARNING: Backup copy of program on PRI will be made on SEC. Any current program on the SEC will be overwritten. This command takes no more than 2 minutes to complete.
SEC	PRI	DBASE	WARNING: Database from SEC will be downloaded to the PRI. Any current database on PRI will be overwritten. MC must be in OOS-MCOND state to successfully execute this command. This command takes no more than 3 minutes to complete.
SEC	PRI	PROG	WARNING: Program from SEC will be downloaded to the PRI. Any current program on PRI will be overwritten. MC must be in OOS-MCOND state to successfully execute this command. This command takes no more than 2 minutes to complete.
INIT	PRI-1	FORMAT	WARNING: The entire PRI No. 1 will be erased and reformatted. This command takes up to 15 minutes to complete.
INIT	PRI-2	FORMAT	WARNING: The entire PRI No. 2 will be erased and reformatted. This command takes up to 15 minutes to complete.
INIT	PRI	JRNL	WARNING: The journal file on the PRI will be erased. Recent database changes may be lost.
INIT	SEC	FORMAT	WARNING: The entire SEC will be erased and reformatted. This command takes up to 15 minutes to complete.
WKG	PRI	DBASE	WARNING Backup copy of database in WKG will be made on PRI. Any current database on the PRI will be overwritten. This command takes up to 5 minutes to complete.

**DLT-CRS-STS1:[a]:b,c:[d]::[e]:<f>;**

---

Parameter Options	Warning Message
(b,c) FROM STS1 & TO STS1 PORTS	WARNING: Executing this command will take down the specified two-way STS1 cross-connect from (FROM) STS1 INPUT PORT to (TO) STS1 OUTPUT PORT.
(b,c) FROM STS1 & TO STS1 PORTS with compound addressing	WARNING: Executing this command will take down the specified STS1 cross-connects from MULTIPLE (FROM) STS1 INPUT PORTs to MULTIPLE (TO) STS1 OUTPUT PORTs.

---

**DLT-CRS-T1:[a]:b,c:[d]::[e]:<f>;**

---

Parameter Options	Warning Message
(b,c) FROM DS1 & TO DS1 PORTS	WARNING: Executing this command will take down the specified two-way DS1 cross-connect from (FROM) DS1 INPUT PORT to (TO) DS1 OUTPUT PORT.
(b,c) FROM DS1 & TO DS1 PORTS with compound addressing	WARNING: Executing this command will take down the specified DS1 cross-connects from MULTIPLE (FROM) DS1 INPUT PORTs to MULTIPLE (TO) DS1 OUTPUT PORTs.

---

**DLT-CRS-VT1:[a]:b,c:[d]::[e]:<f>;**

---

Parameter Options	Warning Message
(b,c) FROM VT1 & TO VT1 PORTS	WARNING: Executing this command will take down the specified two-way VT1 cross-connect from (FROM) VT1 INPUT PORT to (TO) VT1 OUTPUT PORT.
(b,c) FROM VT1 & TO VT1 PORTS with compound addressing	WARNING: Executing this command will take down the specified VT1 cross-connects from MULTIPLE (FROM) VT1 INPUT PORTs to MULTIPLE (TO) VT1 OUTPUT PORTs.

---

**DLT-CONF-ST1:[a]:b,c:[d]::<e>;**

---

Parameter Options	Warning Message
(b,c) FROM ST1 & TO ST1 PORTS	WARNING: Executing this command will take down the one-way cross-connect from (FROM) ST1 INPUT PORT to (TO) ST1 OUTPUT PORT.
(b,c) FROM ST1 & TO ST1 PORTS with compound addressing	WARNING: Executing this command will take down the specified one-way ST1 cross-connects from MULTIPLE (FROM) ST1 INPUT PORTs to MULTIPLE (TO) ST1 OUTPUT PORTs.

---

**DLT-CONF-T1:[a]:b,c:[d]:<e>;**

---

Parameter Options	Warning Message
(b,c) FROM DS1 & TO DS1 PORTS	WARNING: Executing this command will take down the one-way cross-connect from (FROM) DS1 INPUT PORT to (TO) DS1 OUTPUT PORT.
(b,c) FROM DS1 & TO DS1 PORTS with compound addressing	WARNING: Executing this command will take down the specified one-way DS1 cross-connects from MULTIPLE (FROM) DS1 INPUT PORTs to MULTIPLE (TO) DS1 OUTPUT PORTs

---

**DLT-CONF-VT1:[a]:b,c:[d]:<e>;**

---

Parameter Options	Warning Message
(b,c) FROM VT1 & TO VT1 PORTS	WARNING: Executing this command will take down the one-way cross-connect from (FROM) DS1 INPUT PORT to (TO) DS1 OUTPUT PORT.
(b,c) FROM VT1 & TO VT1 PORTS with compound addressing	WARNING: Executing this command will take down the specified one-way DS1 cross-connects from MULTIPLE (FROM) VT1 INPUT PORTs to MULTIPLE (TO) VT1 OUTPUT PORTs

---

**ED-PORT:[a]:b:[c]::<d e>;**

---

Parameter Options	Warning Message
(d) EC1 FORMAT	WARNING: EC1 signal format (ASYN, SYNC, VTFLOAT, VTLOCK, UNSPEC) must match far-end equipment setting.
(e) VT1 SIGNAL FORMAT	WARNING: VT1 signal format (ASYN, UNSPEC, BIT, BYTE) must match far-end equipment setting.

---

**ED-EC1:[a]:b:[c]::<e g i j s t>;**

---

Parameter Options	Warning Message
(j) OUTPUT MODE (TERM or AIS)	WARNING: Execution of this command may cause service interruption if the specified OUTPUT PORT is cross-connected

---

**ED-T1:[a]:b:[c]:::<d g h j k l>;**

---

Parameter Options	Warning Message
(h) DS1 SIGNAL FORMAT	WARNING: DS1 signal format (ESF, SF, UNF) must match far-end equipment setting.
(j) OUTPUT MODE (TERM, AIS or QRSS)	WARNING: Execution of this command may cause service interruption if the specified OUTPUT PORT is cross-connected
(k) DS1 CODE TYPE	WARNING: DS1 code type (AMI/B8ZS) must match far-end equipment setting.

---

**ED-T3:[a]:b:[c]:::<d e f g h m n o p q r>;**

---

Parameter Options	Warning Message
(g) DS3 FORMAT	WARNING: DS3 format (ASYNC/CBIT) must match far-end equipment setting.

---

**ED-VT1:[a]:b:[c]:::<g j>;**

---

Parameter Options	Warning Message
(j) OUTPUT MODE (TERM or AIS)	WARNING: Execution of this command may cause service interruption if the specified OUTPUT PORT is cross-connected

---

**ED-STATE-EQPT:[a]:b:[c]:d;**

---

Parameter Options	Warning Message
(b) MC (d) OOS-MCOND	WARNING: The main controller will be removed from service. Most system functions cannot be performed.

---

**ENT-ROLL-STs1:[a]:b,c,d:[e]:[f]:[g]:[h];**

---

Parameter Options	Warning Message
(b,c) FROM STS1 & TO STS1 PORTS	WARNING: Executing this command will take down the specified STS1 cross-connect from (FROM) STS1 INPUT PORT to (TO) STS1 OUTPUT PORT.
(b,c) FROM STS1 & TO STS1 PORTS with compound addressing	WARNING: Executing this command will take down the specified STS1 cross-connects from MULTIPLE (FROM) STS1 INPUT PORTs to MULTIPLE (TO) STS1 OUTPUT PORTs.

---

**ENT-ROLL-T1:[a]:b,c,d:[e]:[f]:[g]:[h];**

---

Parameter Options	Warning Message
(b,c) FROM DS1 & TO DS1 PORTS	WARNING: Executing this command will take down the specified DS1 cross-connect from (FROM) DS1 INPUT PORT to (TO) DS1 OUTPUT PORT.
(b,c) FROM DS1 & TO DS1 PORTS with compound addressing	WARNING: Executing this command will take down the specified DS1 cross-connects from MULTIPLE (FROM) DS1 INPUT PORTs to MULTIPLE (TO) DS1 OUTPUT PORTs.

---

**ENT-ROLL-VT1:[a]:b,c,d:[e]:[f]:[g]:[h];**

---

Parameter Options	Warning Message
(b,c) FROM VT1 & TO VT1 PORTS	WARNING: Executing this command will take down the specified VT1 cross-connect from (FROM) VT1 INPUT PORT to (TO) VT1 OUTPUT PORT.
(b,c) FROM VT1 & TO VT1 PORTS with compound addressing	WARNING: Executing this command will take down the specified VT1 cross-connects from MULTIPLE (FROM) VT1 INPUT PORTs to MULTIPLE (TO) VT1 OUTPUT PORTs.

---

**INH-SW-EQPT:[a]:[b]:[c]:d;**

---

Parameter Options	Warning Message
(d) PROTN	WARNING: Switching to protection will be inhibited. Automatic protection switching for the specified entity will be disabled.
(d) WKG	WARNING: Switching to working will be inhibited. The entity will be locked in protection. Autonomous protection switching will not be available for other failures in this protection group.

---

**INIT-SYS:[a]:[b]:[c]::d;**

---

Parameter Options	Warning Message
(d) 5 or BOOT	WARNING: The main controller database will be rebooted from PRI. System will be unavailable for approximately [10] minutes.
(d) 9 or RESET	WARNING: The main controller will execute its full power-up sequence. System will be unavailable for approximately [20] minutes. Most system functions cannot be performed.

---

**OPR-LPBK-EC1:[a]:b:[c]:::e:[f];**

---

Parameter Options	Warning Message
(b) EC1 PORT	WARNING: A loopback will be established on the specified incoming STS1 signal. This action will disrupt service of a two-way cross-connect on the specified EC1 PORT.

---

**OPR-LPBK-T1:[a]:b:[c]::[d]:e:[f];**

---

Parameter Options	Warning Message
(b) DS1 PORT (d) NEND	WARNING: A loopback will be established on the specified incoming DS1 signal. This action will disrupt service of a two-way cross-connect on the specified DS1 PORT.

---

**OPR-LPBK-T3:[a]:b:[c]::[d]::[f];**

---

Parameter Options	Warning Message
(b) DS3 PORT (d) NEND	WARNING: A loopback will be established on the specified incoming DS3 signal. This action will disrupt service of a two-way cross-connect on the specified DS3 PORT.

---

**OPR-LPBK-VT1:[a]:b:[c]::e:[f];**

---

Parameter Options	Warning Message
(b) VT1 PORT	WARNING: A loopback will be established on the specified incoming VT1 signal. This action will disrupt service of a two-way cross-connect on the specified VT1 PORT.

---

**RMV-EQPT:[a]:b:[c];**

---

Parameter Options	Warning Message
(b) MC	WARNING: The main controller will be removed from service. Most system functions cannot be performed.
(b) CC	WARNING: The controller complex will be removed from service.
(b) PRI	WARNING: The primary storage device (PRI) will be removed from service. The PRI will be powered down.
(b) SEC	WARNING: The secondary storage device (SEC) will be removed from service. The SEC unit will be powered down.
(b) UC-{1-32}	WARNING: The specified Unit Controller will be removed from service.
(b) DS3PM-{1-32}	WARNING: The specified DS3PM will be removed from service. This disables DS3PM TABS link performance data on the specified unit.
(b) SYNC-{0,1}	WARNING: The specified SYNC will be removed from service. This creates alarms on the specified equipment location.
(b) TX-{0,1}	WARNING: The specified TX will be removed from service. This creates alarms on the specified equipment location.

---

**RST-EQPT:[a]:b:[c]::[d]:[e]:[f];**

---

Parameter Options	Warning Message
(b) MC (f) FRCD	WARNING: Empty database will be booted; will remove existing equipment & cross-connect information.

---

**SET-SYCN:[a]:b:[c]::d;**

---

Parameter Options	Warning Message
(b) SYCN (d) FST	WARNING: Switching to FAST mode may inpair holdover performance for up to 30 minutes.

---

**SW-DX-EQPT:[a]:b:[c]::[d];**

---

Parameter Options	Warning Message
(b) CLKGN-{0,1}	WARNING: The specified CLKGN will become the ACTIVE entity. Switching CLKGNs may cause random timing hits on traffic in the system.
(b) SYNC-{0,1}	WARNING: The specified SYNC side will become the ACTIVE entity. Switching SYNC side may cause random timing hits on traffic in the system.

---

**SW-TOPROTN-EQPT:[a]:b:[c]::[d];**

Parameter Options	Warning Message
(b) SWCS-{1-31}	WARNING: The specified SWCS will be switched to protection. Protection will be unavailable for other SWITCH failures.
(b) SWIO-{1-32}	WARNING: The specified SWIO will be switched to protection. Protection will be unavailable for other SWITCH failures.
(b) MUX-{1-32}-{1-31}	WARNING: The specified MUX will be switched to protection. Protection will be unavailable for other failures in this protection group.
(b) SMUX-{1-32}-{1-15}	WARNING: The specified SMUX will be switched to protection. Protection will be unavailable for other failures in this protection group.
(b) SWIF-{1-32}-{1-8}	WARNING: The specified SWIF and the corresponding DS1 PORTs will be switched to protection. Protection will be unavailable for other DS1 equipment failures in the bay containing the specified SWIF.
(b) SWCS-{1-31} (d) FRCD	WARNING: The specified SWCS will be FORCED to switch to protection. Protection will be unavailable for other SWITCH failures. If the protection entity is bad, this action will be service-affecting.
(b) SWIO-{1-32} (d) FRCD	WARNING: The specified SWIO will be FORCED to switch to protection. Protection will be unavailable for other SWITCH failures. If the protection entity is bad, this action will be service-affecting.

Table continued on next page.

Parameter Options	Warning Message
(b) MUX-{1-32}-{1-31} (d) FRCD	WARNING: The specified MUX will be FORCED to switch to protection. Protection will be unavailable for other failures. If the protection entity is bad, this action will be service-affecting.
(b) SMUX-{1-32}-{1-15} (d) FRCD	WARNING: The specified SMUX will be FORCED to switch to protection. Protection will be unavailable for other failures. If the protection entity is bad, this action will be service-affecting.
(b) SWIF-{1-32}-{1-8} (d) FRCD	WARNING: The specified SWIF and the corresponding DS1 PORTs will be FORCED to switch to protection. Protection will be unavailable for other DS1 equipment failures in the bay containing the specified SWIF. If the protection entity is bad, this action will be service-affecting.

**Note:** If FRCD is specified in the command input, the second group of warning messages will be used. If FRCD is not specified, the first group will be used.

---

**SW-TOWKG-EQPT:[a]:b:[c]::[d];**

Parameter Options	Warning Message
(b) SWCS-{1-31}	WARNING: The specified SWCS will be switched to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. Allowing a switch without locking can be accomplished with the ALW-SW-EQPT command.
(b) SWIO-{1-32}	WARNING: The specified SWIO will be switched to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. Allowing a switch without locking can be accomplished with the ALW-SW-EQPT command.
(b) MUX-{1-32}-{1-31}	WARNING: The specified MUX will be switched to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. Allowing a switch without locking can be accomplished with the ALW-SW-EQPT command.
(b) SMUX-{1-32}-{1-15}	WARNING: The specified SMUX will be switched to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. Allowing a switch without locking can be accomplished with the ALW-SW-EQPT command.

Table continued on next page.

Parameter Options	Warning Message
(b) SWIF-{1-32}-{1-8}	WARNING: The specified SWIF and corresponding DS1 PORTS will be switched to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. Allowing a switch without locking can be accomplished with the ALW-SW-EQPT command.
(b) SWCS-{1-31} (d) FRCD	WARNING: The specified SWCS will be FORCED to switch to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. If the working entity is bad, this action will be service-affecting.
(b) SWIO-{1-32} (d) FRCD	WARNING: The specified SWIO will be FORCED to switch to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. If the working entity is bad, this action will be service-affecting.
(b) MUX-{1-32}-{1-31} (d) FRCD	WARNING: The specified MUX will be FORCED to switch to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. If the working entity is bad, this action will be service-affecting.

Table continued on next page.

Parameter Options	Warning Message
(b) SMUX-{1-32}-{1-15} (d) FRCD	WARNING: The specified SMUX will be FORCED to switch to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. If the working entity is bad, this action will be service-affecting.
(b) SWIF-{1-32}-{1-8} (d) FRCD	WARNING: The specified SWIF and corresponding DS1 PORTs will be FORCED to switch to working and LOCKED. Automatic protection switching will be inhibited for the specified entity. If the working entity is bad, this action will be service-affecting.

**Note** If FRCD is specified in the command input, the second group of warning messages will be used. If FRCD is not specified, the first group will be used.

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## Provisionable Parameters

# I

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This appendix contains a list of the provisionable parameters within the DACS IV-2000. Also, included are the initial system values, allowable values, and the commands used to provisioned the specified parameter.

Table I-1. Provisionable Parameters

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
DATE	Current Date	940101	{00-39,86-99}{01-12}{01-31}, CURVAL	ED-DATE
TIME	Current Time	080000	{00-23}{00-59}{00-59}, CURVAL	ED-DATE
SID	Target ID	none	<1-18 TID Legal Characters>, CURVAL	SET-SID
NEWTID	Target ID	none	<1-18 TID Legal Characters>, CURVAL	ED-NE
ALMDLY	Alarm Delay	10 (sec)	{1-30}, CURVAL	ED-NE
CLRDLY	Clear Delay	10 (sec)	{1-20}, CURVAL	ED-NE
NUMSW	Autolock Number of Switches	4	{1-10}, CURVAL	ED-NE
SWINTVL	Autolock Switching Interval	10 (min)	{1-60}, CURVAL	ED-NE
RLSTM	Autolock Release Time	24 (hr)	{1-24}, CURVAL	ED-NE

Table continued on next page.

Provisionable Parameters

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
BKUP	Automatic SEC Backup	OFF	ON, OFF, CURVAL	ED-NE
TMDAY	Time of Day (Automatic SEC Backup)	0130	{0000-2359}, CURVAL	ED-NE
DAYWK	Day of Week (Automatic SEC Backup)	Su	Su, Mo, Tu, We, Th, Fr, Sa, CURVAL	ED-NE
CLEI	Common Language Equipment Identification	DACSIV	#<1-10 TRANSID Legal Characters>, CURVAL, NOVAL	ED-NE
CLLI	Common Language Location Identification	NOVAL	#<1-11 TRANSID Legal Characters>, CURVAL, NOVAL	ED-NE
FIC	Frame Identification Code	NOVAL	#<1-10 TRANSID Legal Characters>, CURVAL, NOVAL	ED-NE
EQTYPE	Equipment Type	NET	CPE, NET, CURVAL	ED-NE
FAILTYPE	EC-1/VT1.5/DS1 Failure Type	NONE	FAC, EQPT, BOTH, NONE, CURVAL	ED-NE
FAILTHRES	EC-1/VT1.5/DS1 Failure Threshold	6	{0-500}, CURVAL	ED-NE
CRCERR	Number of CRC-6 Errors	92	{0-19200}, CURVAL	ED-NE
SHACCUM	DS1 Short Accumulation Period	15-MIN	15-MIN, 1-HR, CURVAL	ED-NE
PMTYPE	DS3 Performance Monitoring Type	NONE	PSET#1, PSET#2, NONE, CURVAL	ED-NE
ACCUM	DS3 Accumulation Period	none	15-MIN, 1-HR, CURVAL	ED-NE
DBCHG	Database Change Feature	ON	OFF, ON, CURVAL	ED-NE
LINKNUM	Link Number	OFF	ON, OFF, CURVAL	ED-NE
MANPROT	Manual Protection Identification	CKTLED-ON	CKTLED-ON, CKTLED-OFF, CURVAL	ED-NE
BKUPALM	Backup Alarm Feature	OFF	ON, OFF, CURVAL	ED-NE
AUTRET	Auto Carriage Return	ON	ON, OFF, CURVAL	ED-NE
EQPWR	Equipment Power	SPLX	SPLX, DPLX, CURVAL	ED-NE

Table continued on next page.

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
NTFCODE	Notification Code (MUX2 Circuit Packs)	MJ	MJ, MN, NA, CURVAL	SET-ATTR-EQPT
PCODE	Provisioned Code Name	INIT	AKM46, AKM47, AKM49, AKM50, AKM52, AKM55, AKM66, AKM68, AKM70, AKM84, AKM85, AWP9, AWP15, AWR2C, AWR4, AWR6, AWR7, AWR10, AWR11, AWS1, AWS1B, AWS9, AWS8, AWS5, AWS3, INIT, CURVAL, NOVAL	ED-EQPT
LBO	Line Build Out (MUX/SMUX)	none	INIT, OUT, IN, CURVAL, NOVAL	ED-EQPT
EQL	Equalizer (DS11F)	none	INIT, 20, 40, 60, 80, 100, CURVAL, NOVAL	ED-EQPT
MULPTADD	Multipoint Address (DS3PM)	none	{0-31}, INIT, NOVAL, CURVAL	ED-EQPT
FNCT	PMGR1 Circuit Pack Function	none	PM, PM-SCAN, CURVAL, NOVAL	ED-EQPT
SYNCPRI	Primary Timing Reference (DS1TX)	none	1, 2, CURVAL, NOVAL	ED-EQPT
SYNCSEC	Secondary Timing Reference (DS1TX)	none	1, 2, CURVAL, NOVAL	ED-EQPT
TLIP1FF	TLI Port 1 Framing Format (DS1TX)	none	ESF, SF, CURVAL, NOVAL	ED-EQPT
TLIP2FF	TLI Port 2 Framing Format (DS1TX)	none	ESF, SF, CURVAL, NOVAL	ED-EQPT
TLIP1LC	TLI Port 1 Line Code (DS1TX)	none	AMI, B8ZS, CURVAL, NOVAL	ED-EQPT
TLIP2LC	TLI Port 2 Line Code (DS1TX)	none	AMI, B8ZS, CURVAL, NOVAL	ED-EQPT
NTFCODE	Notification Code (T1 Facilities)	NA	MJ, MN, NA	SET-ATTR-T1
LOC	Location (T1 Facilities)	none	NEND, FEND	SET-ATTR-T1
NTFCODE	Notification Code (T2 Facilities)	NA	MJ, MN, NA	SET-ATTR-T2

Table continued on next page.

## Provisionable Parameters

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
NTFCODE	Notification Code (T3 Facilities)	MJ (FAULT) NA (AIS, IDLE)	MJ, MN, NA	SET-ATTR-T3
CONDGROUP	Condition Group (T3 Facilities)	none	FAULT, AIS, IDLE, ALL	SET-ATTR-T3
LOC	Location (T3 Facilities)	none	NEND, FEND	SET-ATTR-T3
NTFCODE	Notification Code (EC-1 Facilities)	MJ (FAULT) NA (AIS-YEL, FERF)	MJ, MN, NA	SET-ATTR-EC1
CONDGROUP	Condition Group (EC-1 Facilities)	none	FAULT, AIS-YEL, FERF, ALL	SET-ATTR-EC1
NTFCODE	Notification Code (VT1.5 Facilities)	MJ (FAULT) NA (AIS-YEL)	MJ, MN, NA	SET-ATTR-VT1
CONDGROUP	Condition Group (VT1.5 Facilities)	none	FAULT, AIS-YEL, ALL	SET-ATTR-VT1
BER	Bit Error Rate Threshold (T1 Facilities)	3	{3-9}, CURVAL	ED-T1
ISTAT	Input Status (T1 Facilities)	INIT (DS1IF) DRVN (MUX/ SMUX)	INIT, DRVN, NDRVN, QRSS, CURVAL	ED-T1
FMT	DS1 Signal Format	UNFR	ESF, SF, UNFR, CURVAL	ED-T1
OMODE	Output Mode (T1 Facilities)	none	NORM, TERM, AIS, QRSS, CURVAL	ED-T1
LINECDE	DS1 Line Code	INIT	AMI, B8ZS, INIT, CURVAL	ED-T1
FENDNTE	Far-End Notification	NOT-ANSI	ANSI, NOT-ANSI, CURVAL	ED-T1
BER	Bit Error Rate Threshold (T3 Facilities)	3	{3-9}, CURVAL	ED-T3
BERM	Bit Error Rate Metric	BPV	BPV, PTY, CP-BITS, FMA-BITS, FMN-BITS, CURVAL	ED-T3
ISTAT	Input Status (T3 Facilities)	DRVN	INIT, DRVN, NDRVN, CURVAL	ED-T3
DS3FORMAT	DS3 Signal Format	ASYNC	ASYNC, CBIT, CURVAL	ED-T3
IDLE	DS3 Idle Signal	OFF	ON, OFF, CURVAL	ED-T3

Table continued on next page.

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
RMTMUXC	Remote Multiplexer Communications	NONE	SBIT, FEAC, TR9, NONE, CURVAL	ED-T3
XPOL	DS3 X-Bits Transmitted	ALM0	1, 0, ALM1, ALM0, CURVAL	ED-T3
XBITRCV	DS3 X-Bits Received	IGNORE	ALM0, ALM1, IGNORE, CURVAL	ED-T3
DS2XTR	DS2 X-Bits Transmitted	ALM0	1, 0, ALM1, ALM0, CURVAL	ED-T3
DS2XRCV	DS2 X-Bits Received	IGNORE	ALM0, ALM1, IGNORE, CURVAL	ED-T3
BERL	Line Bit Error Rate Threshold	3	{3, 5--9}, CURVAL	ED-EC1
ISTAT	Input Status (EC-1 Facilities)	DRVN	INIT, DRVN, NDRVN, CURVAL	ED-EC1
TRC	Transmit Path Trace	NOVAL	<1-62 Path Trace Characters>, NOVAL, CURVAL	ED-EC1
OMODE	Output Mode (EC-1 Facilities)	none	NORM, TERM, AIS, CURVAL	ED-EC1
SOAKON	SONET Condition Alarm Onset Soak Time	2 (sec)	{1-30}, CURVAL	ED-EC1
SOAKCLR	SONET Condition Alarm Clear Soak Time	10 (sec)	{1-20}, CURVAL	ED-EC1
ISTAT	Input Status (VT1.5 Facilities)	DRVN	DRVN, NDRVN, CURVAL	ED-VT1
OMODE	Output Mode (VT1.5 Facilities)	none	NORM, TERM, AIS, CURVAL	ED-VT1
PTYPE	Protocol Type	SNIDER (CILINK-{1,2}-{1-3}) TABS (CILINK-{1,2}-4) X.25 (CILINK-{1,2}-{5,6})	SNIDER, TABS, TBOS, X.25, CURVAL	ED-PRMTR-LINK
BAUD	Baud Rate	9600 (CILINK-{1,2}-{1,3,5,6}) 2400 (CILINK-{1,2}-{2,4})	300, 1200, 2400, 4800, 9600, CURVAL	ED-PRMTR-LINK

Table continued on next page.

## Provisionable Parameters

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
SCREEN	Message Screening (Link)	ALL	INPUT, AUTO, ALL, DBAUTO, BDALL, CURVAL	ED-PRMTR-LINK
DIALOG	Dialog Mode (Snider and X.25 Links)	MENU (Snider) COMMAND (X.25)	MENU, COMMAND, CURVAL	ED-PRMTR-LINK
TLMTRY	Telemetry Set (TABS Links)	EXTENDED	SUMMARY, DETAILED, EXTENDED, CURVAL	ED-PRMTR-LINK
POLL	Poll Timing	20 (sec) [TABS] 2 (sec) [TBOS] none (Snider/X.25)	{10-60}, CURVAL, NOVAL	ED-PRMTR-LINK
FLOW	Flow Control	DC3	DC3, ACK, CURVAL	ED-PRMTR-LINK
K	Link Window Size K (X.25 Links)	7 (1 frames)	{2-7}, CURVAL	ED-PRMTR-LINK
N2	Counter N2 (X.25 Links)	7	{2-15}, CURVAL	ED-PRMTR-LINK
T1	Timer T1 (X.25 Links)	3 (sec)	{2-20}, CURVAL	ED-PRMTR-LINK
T3	Timer T3 (X.25 Links)	26 (sec)	{4-120}, CURVAL	ED-PRMTR-LINK
W	Network Window Size W (X.25 Links)	2	{1-7}, CURVAL	ED-PRMTR-LINK
P	Packet Size P (X.25 Links)	128	128, 256, CURVAL	ED-PRMTR-LINK
T20	Timer T20 (X.25 Links)	180 (sec)	{30-180}, CURVAL	ED-PRMTR-LINK
T22	Timer T22 (X.25 Links)	180 (sec)	{30-180}, CURVAL	ED-PRMTR-LINK
T23	Timer T23 (X.25 Links)	180 (sec)	{30-180}, CURVAL	ED-PRMTR-LINK
T25	Timer T25 (X.25 Links)	200 (sec)	{30-200}, CURVAL	ED-PRMTR-LINK
T26	Timer T26 (X.25 Links)	180 (sec)	{30-180}, CURVAL	ED-PRMTR-LINK
R20	Counter R20 (X.25 Links)	1	{1-10}, CURVAL	ED-PRMTR-LINK

Table continued on next page.

Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
R22	Counter R22 (X.25 Links)	1	{1-10}, CURVAL	ED-PRMTR-LINK
R23	Counter R23 (X.25 Links)	1	{1-3}, CURVAL	ED-PRMTR-LINK
R25	Counter R25 (X.25 Links)	0	{0-3}, CURVAL	ED-PRMTR-LINK
DBIT	D-Bit (X.25 Links)	ON	ON, OFF, CURVAL	ED-PRMTR-LINK
LOC	Equipment Location	none	MC	ED-STATE-EQPT
STATE	New Equipment State	none	OOS-MCOND	ED-STATE-EQPT
INACTV	Inactivity	15 (min)	{0-60}, CURVAL	ED-SECU-LINK
NUMBR	Number of Invalid Session Set-up Attempts (Lock-Out)	5	{1-10}, CURVAL	ED-SECU-LINK
INTRVL	Interval for Attempts to be Exceeded (Lock-Out)	30 (min)	{1-90}, CURVAL	ED-SECU-LINK
TM	Time of Link Lock-Out	10 (min)	{1-30}, CURVAL	ED-SECU-LINK
NEWPSWD	New Password	none	<6-8 Password Legal Characters>	ED-SECU-PID
NEWUID	New User ID	none	<1-10 UID Legal Characters>, CURVAL	ED-SECU-USER
PSWD	Password	none	<6-8 Password Legal Characters>	ED-SECU-USER
UCFC/UCAL	User Community Functional Category/User Community Authorization Level	none	P{1-5}, M{1-5}, T{1-5}, S{1-5}, PM{1-5}, CURVAL	ED-SECU-USER
UCPL	User Community Priority Level	none	{1-5}, CURVAL	ED-SECU-USER
SCREEN	Message Screening (User ID)	none	INPUT, AUTO, ALL, DBAUTO, BDALL, CURVAL	ED-SECU-USER
DIALOG	Dialog Mode (User ID)	none	MENU, COMMAND, CURVAL	ED-SECU-USER
UTYPE	User Type	none	HUMAM, MACHINE, CURVAL	ED-SECU-USER

Table continued on next page.

## Provisionable Parameters

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Table I-1. Provisionable Parameters (Continued)

Parameter	Description	Initial System Value	Allowable Values	Command Used to Provision Parameter
ECHO	Message Echo	OFF	ON, OFF, CURVAL	ED-SECU-USER
EC1MAP	EC-1 Format	VTFLOAT	UNSPED, ASYN, SYNC, VTFLOAT, VTLOCK, NOVAL	ED-PORT
VTMAP	VT1.5 Format	ASYN	UNSPEC, ASYN, BIT, BYTE, NOVAL	ED-PORT
LOC	Location (EC-1/ VT1.5 facilities)	<b>EC-1:</b> ALL <b>VT1.5:</b> NEND	NEND, FEND, ALL	SET-PMMODE
MODETYPE	Monitored Layer Type	none	S, L, P, ALL	SET-PMMODE
PMSTATE	Performance Monitoring State	OFF	ON, OFF	SET-PMMODE

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## State Diagrams

# J

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## State Diagrams

# J

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This appendix contains the state diagrams associated with the DACS IV-2000 (256) Release 4.0.

For more information on the commands contained in these diagrams refer to Chapter 2. For more information on the states in these diagrams refer to the appendix on **State Names and State Qualifiers**.

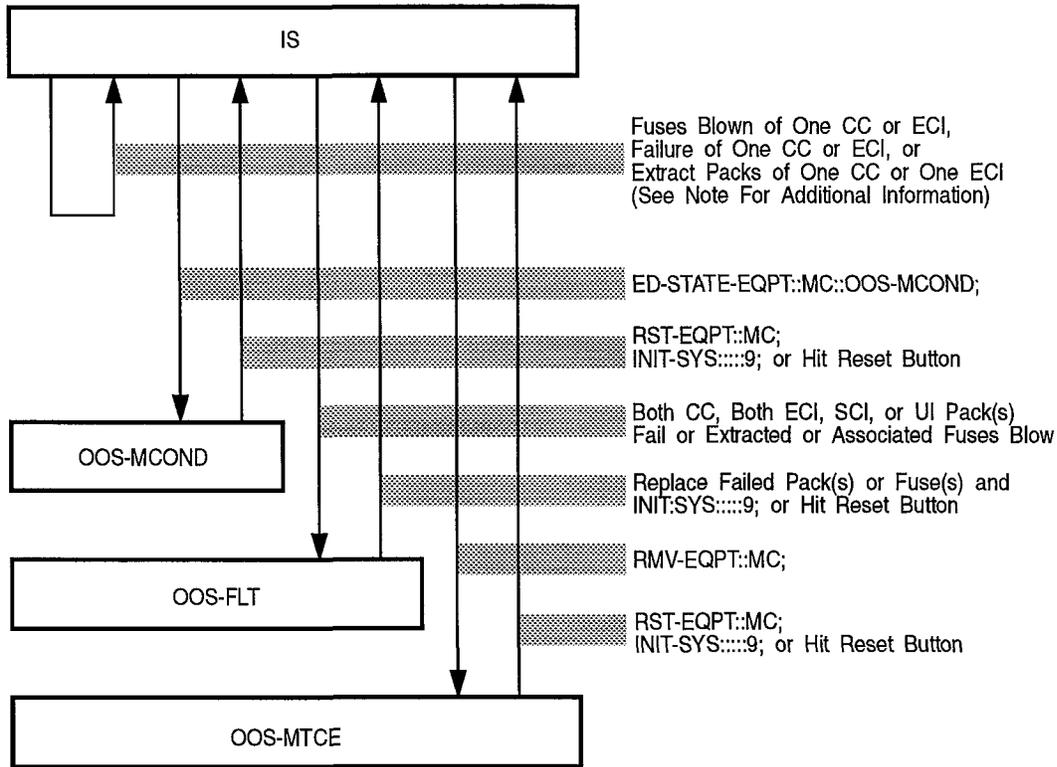
For each entity, the primary state is the state shown at the top of the state diagram (on the first sheet for diagrams spanning more than one sheet). For example, the primary state for the Main Controller is IS (refer to Figure J-1).

State diagrams that span more than one page (identified by Sheet x of y), the numerals contained in circles are used to connect one sheet with the previous or the next sheet. Except where indicated, numerals on the left hand side of a sheet connect that sheet with the previous sheet; while numerals on the right hand side of a sheet connect that sheet with the next sheet. For example, the state diagram for the Switch Center Stage (Figure J-13) uses the numeral 1 attached to the state ACT on sheets 1 and 2 to indicate where the two sheets are connected.

### NOTE:

Interface module circuit packs (MUX, MUXP, DS1IF, SWIF, DS1IP, DS1RY, and CLKDR) enter the PNDG-MTCELIM state when the associated interface module (UNIT) is entered into the system database (**ENT-EQPT** command). The state diagrams for the interface module circuit packs assume that the associated interface module has been entered into the system database. Otherwise, the MUX, MUXP, DS1IF, SWIF, and DS1IP circuit packs are in the AVAIL-MTCELIM state and the CLKDR circuit pack is in the AVAIL state.

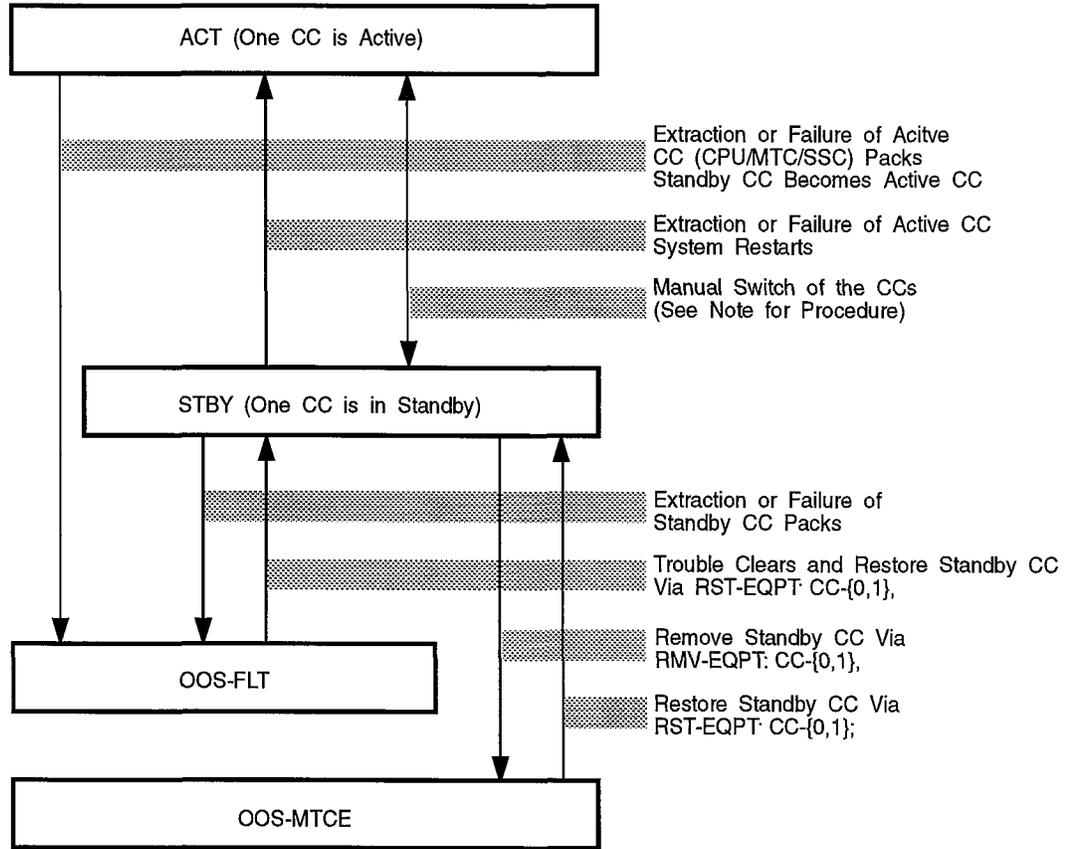
Main Controller (MC)



**Note:** For more information on the state of the control complexes (CCs), refer to Figure I-2. For more information on the state of the ECI circuit packs, refer to Figure I-3.

Figure J-1. Main Controller (MC) State Transition Diagram

**Control Complexes (CCs)**



**Note:** The following commands are used to manually switch CCs:  
 ED-STATE-EQPT: :MC: :MCOND; or RMV-EQPT: :MC;  
 RST-EQPT: :MC: : :CC-{0,1};

**Figure J-2. Control Complexes (CCs) State Transition Diagram**

Disk Drives (PRIs and SEC)

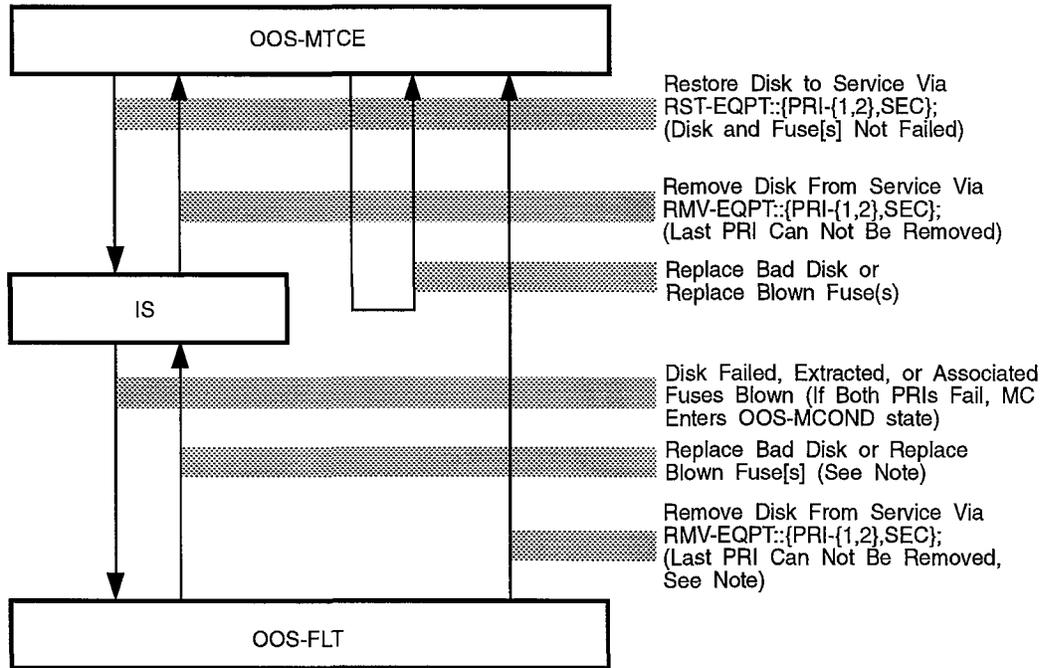
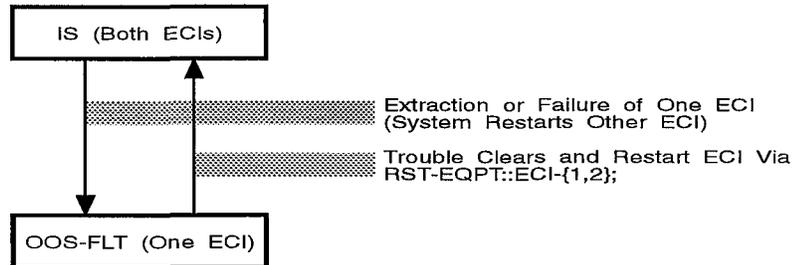


Figure J-3. Disk Drives (PRIs and SEC) State Transition Diagram

### Enhanced Communications Interface (ECI)



**Note:** If both ECI circuit packs are failed (OOS-FLT) at the same time, the MC enters the OOS-FLT state as well. Refer to Figure I-1.

Figure J-4. Enhanced Communications Interface (ECI) State Transition Diagram

### Administrative Links (CILINKs)

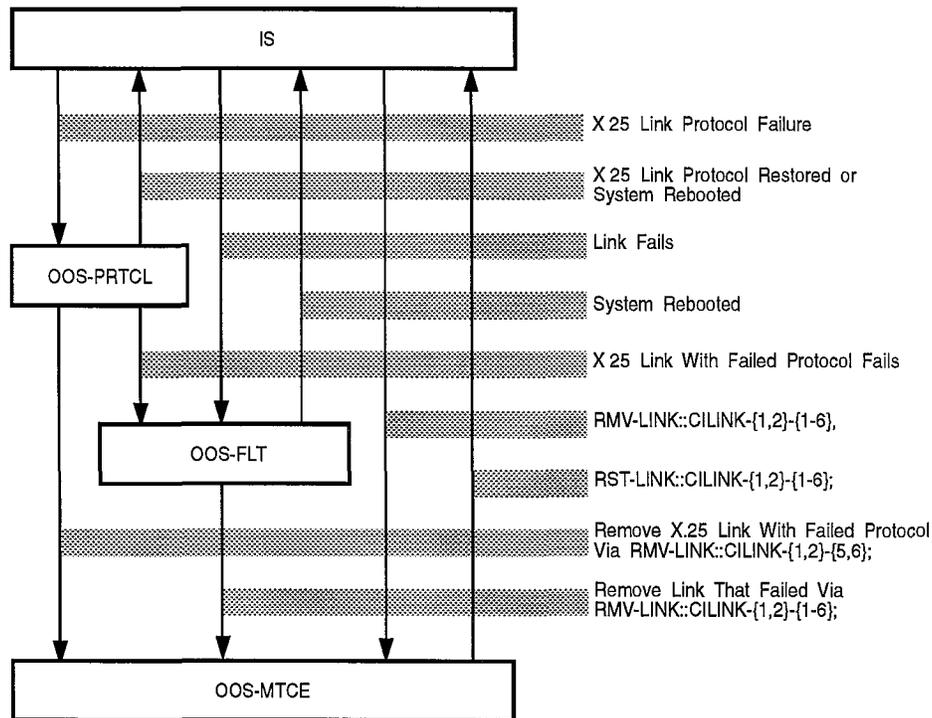


Figure J-5. Administrative Links (CILINKs) State Transition Diagram



**Synchronizer (SYNC)**

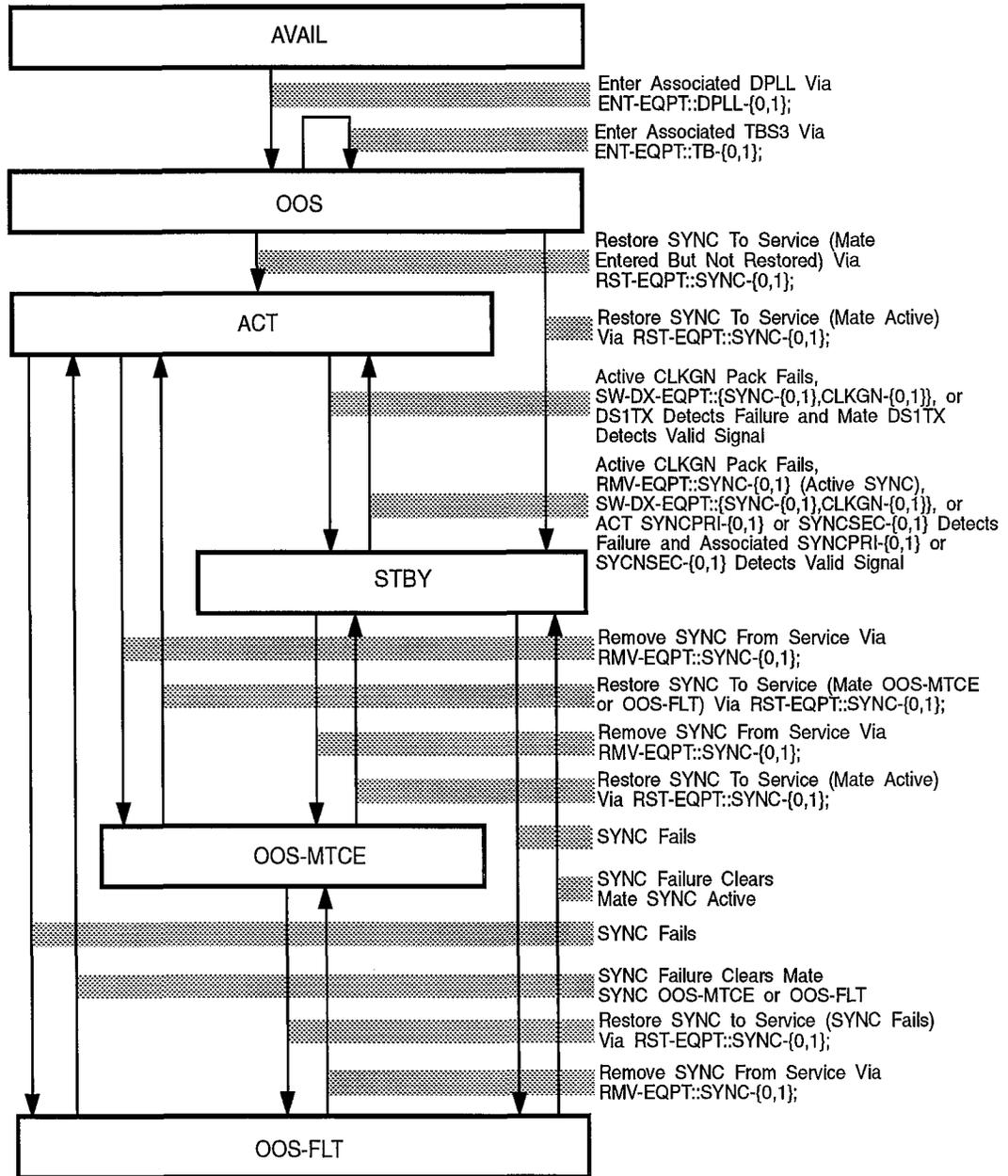


Figure J-6. Synchronizer (SYNC) State Transition Diagram

Digital Phase Lock Loop (DPLL)

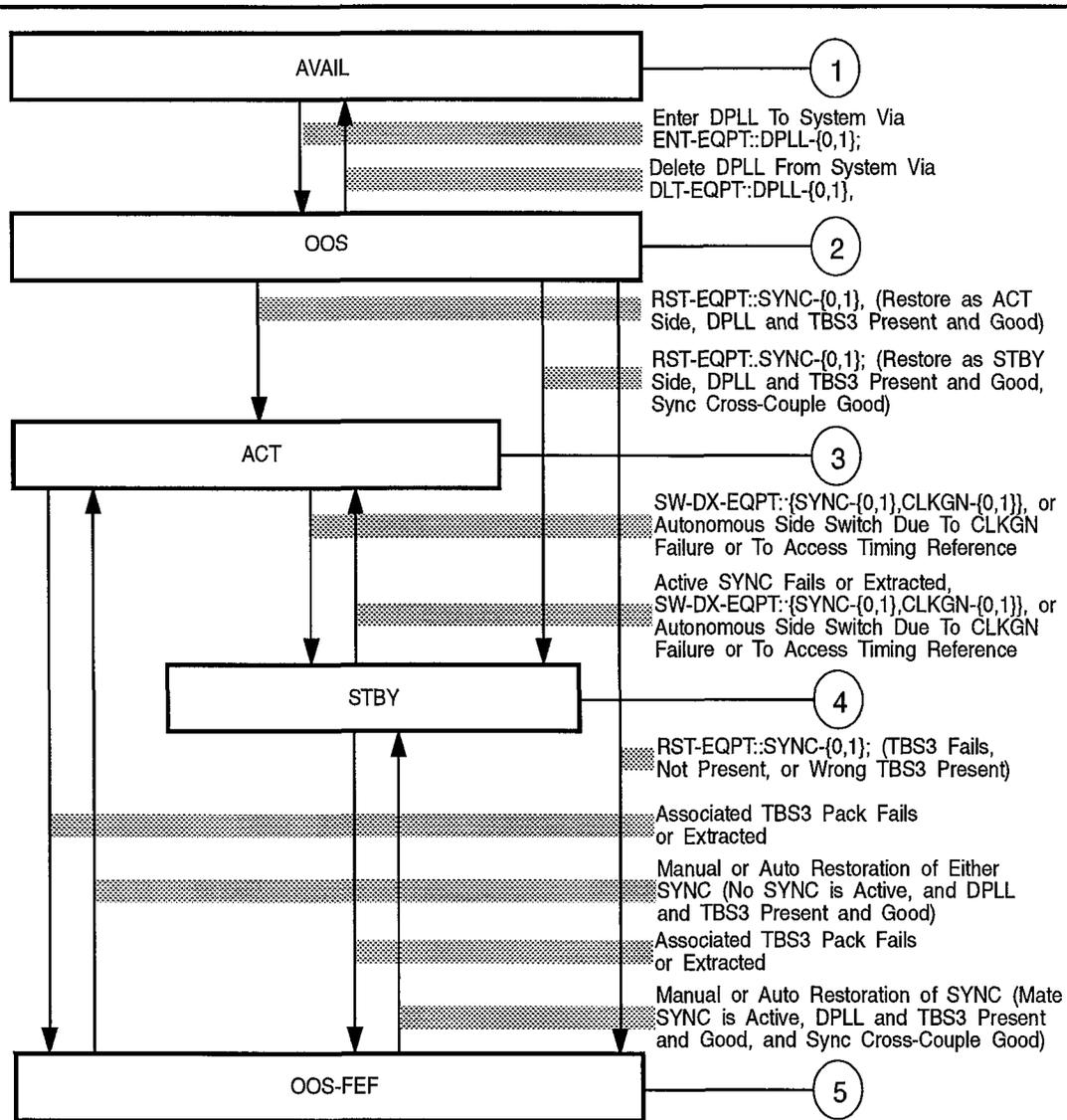


Figure J-7. Digital Phase Lock Loop (DPLL) State Transition Diagram (Sheet 1 of 2)

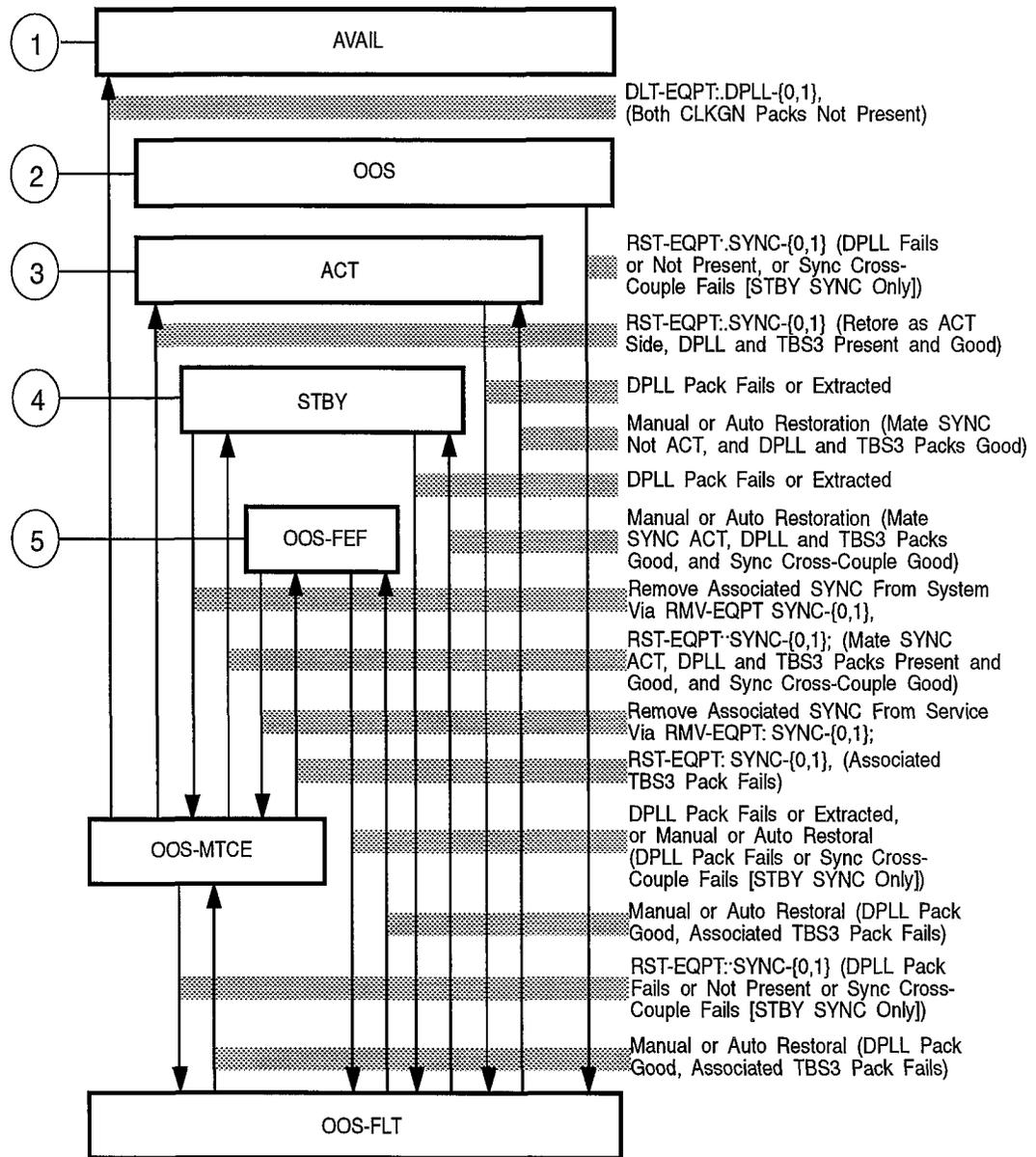


Figure J-7. Digital Phase Lock Loop (DPLL) State Transition Diagram (Sheet 2 of 2)

Time-Base Stratum 3 (TBS3)

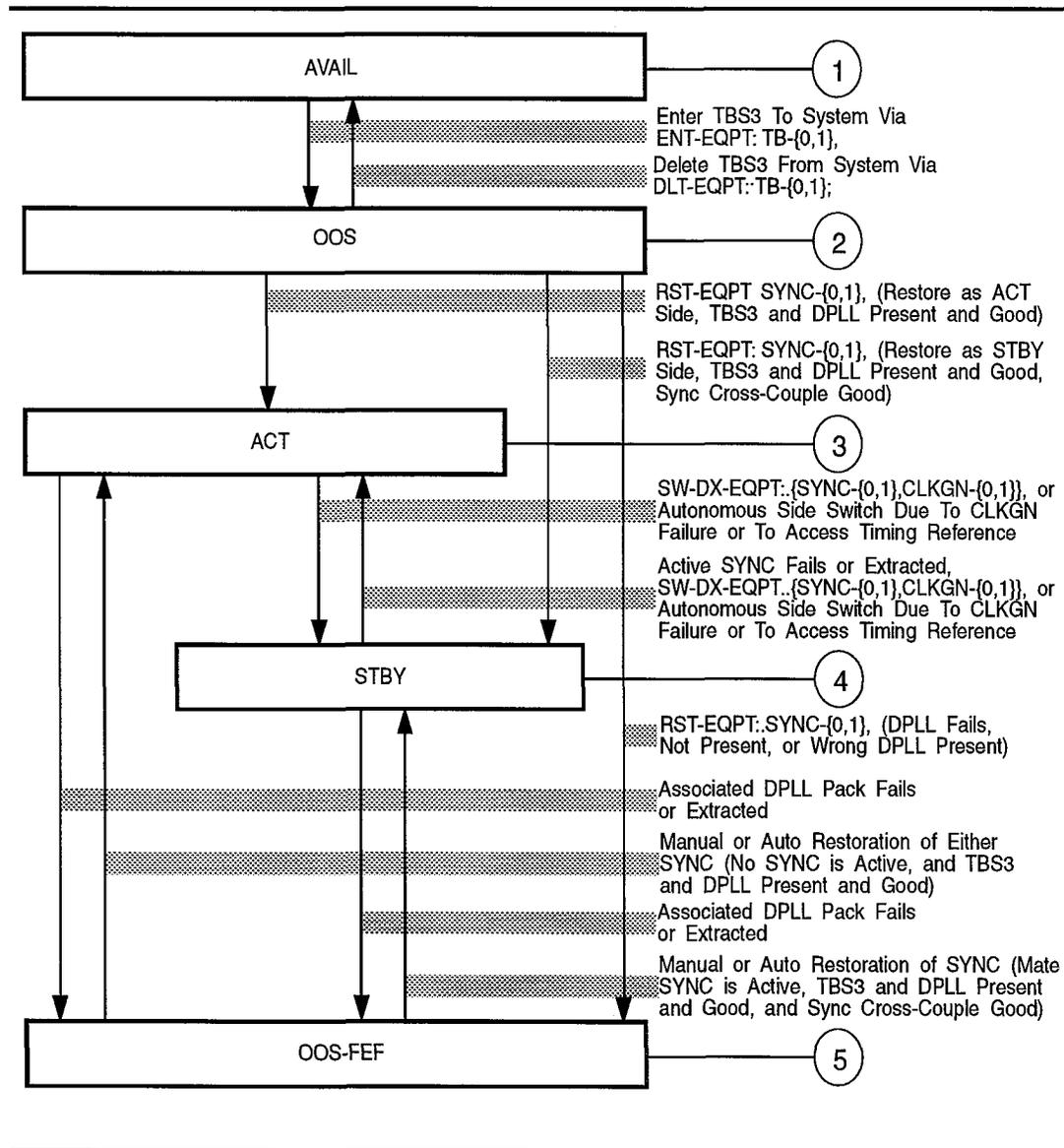


Figure J-8. Time-Base Stratum 3 (TBS3) State Transition Diagram (Sheet 1 of 2)

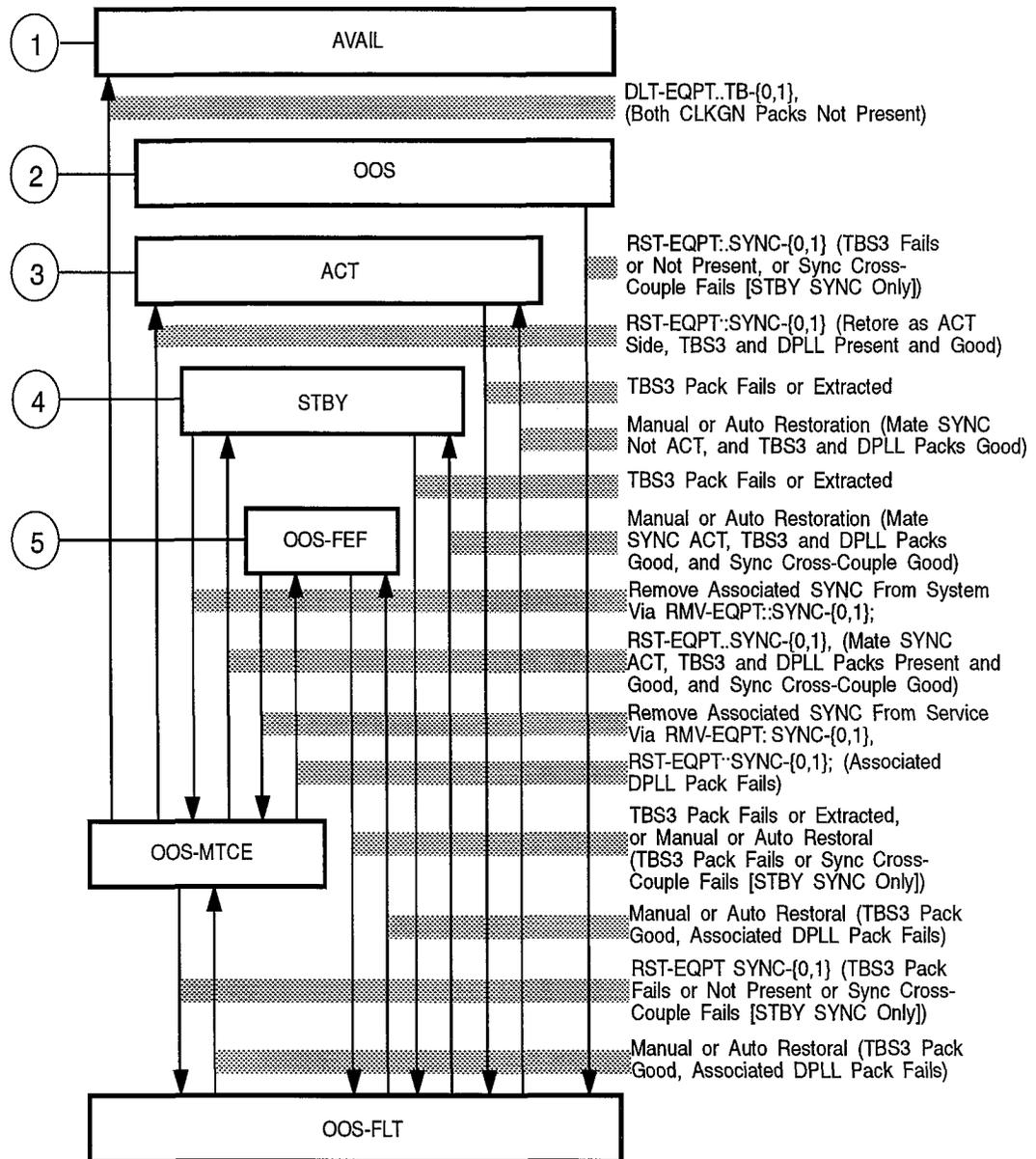


Figure J-8. Time-Base Stratum 3 (TBS3) State Transition Diagram (Sheet 2 of 2)

DS1 Timing Extractor (DS1TX)

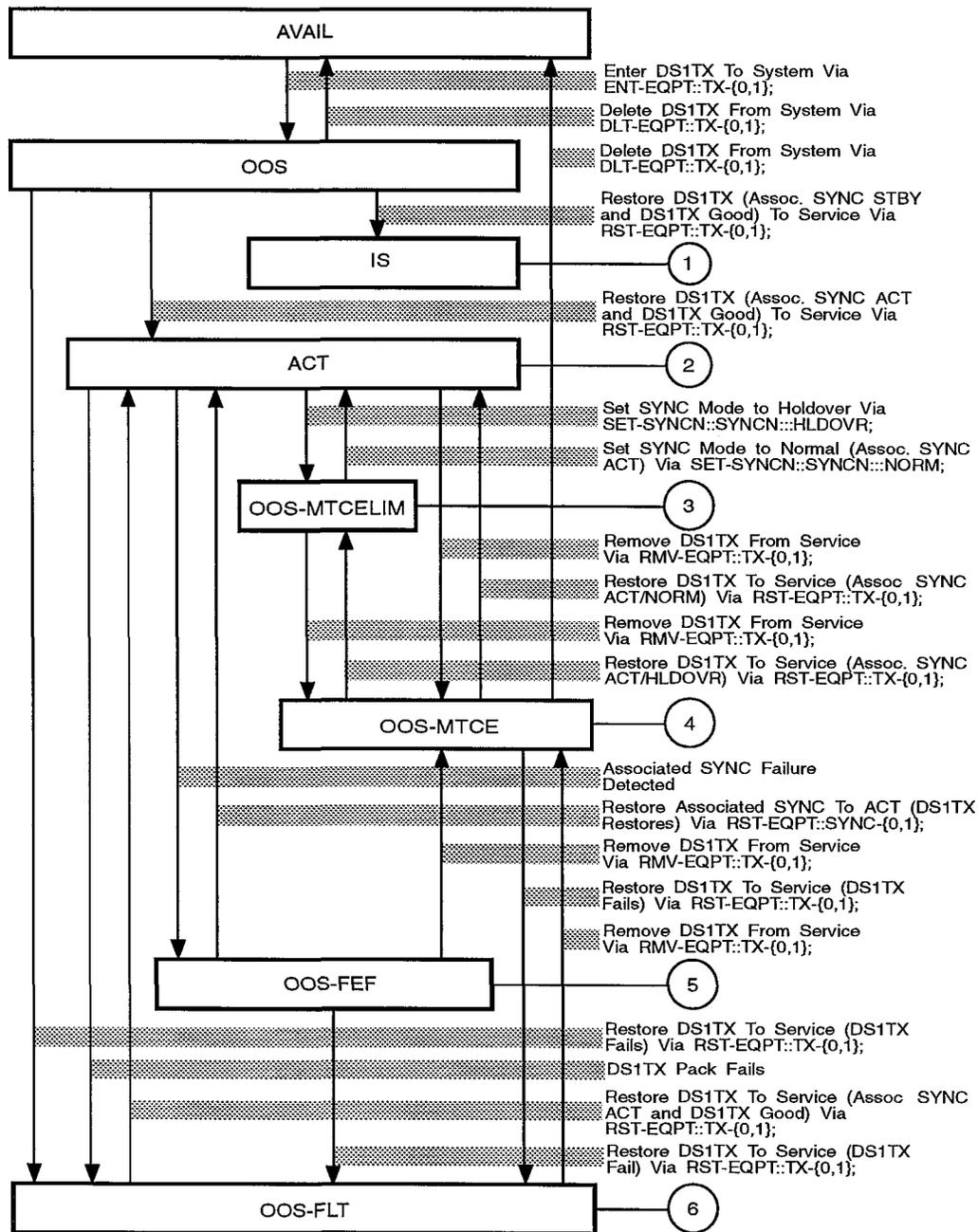


Figure J-9. DS1 Timing Extractor (DS1TX) State Transition Diagram (Sheet 1 of 2)

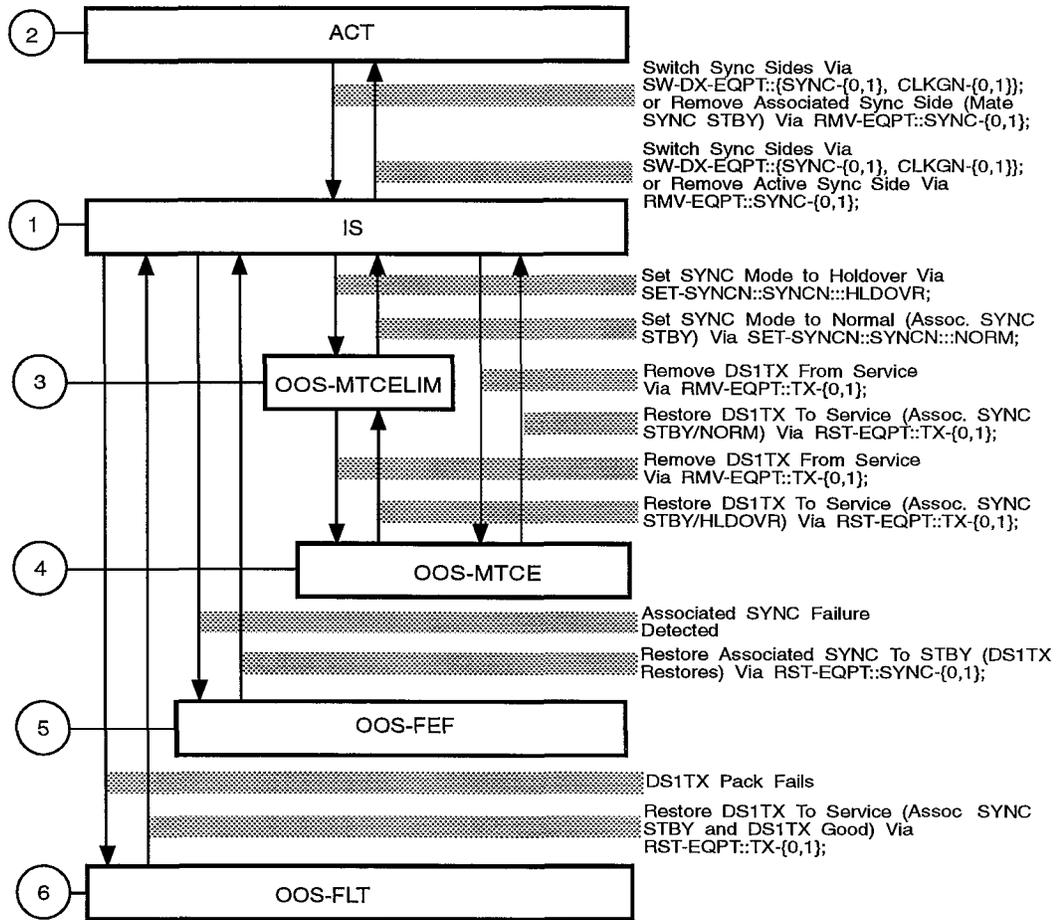


Figure J-9. DS1 Timing Extractor (DS1TX) State Transition Diagram (Sheet 2 of 2)



## Synchronization Mode

When both synchronizer sides are OOS (initial service or both synchronizer sides fail), the synchronizer mode is undefined. Once a synchronizer side is restored, the synchronizer is in the free-running (FRNG) mode. During synchronizer or timing reference side switches and system resets, the synchronizer mode can autonomously change between the NORM, FST, and HLDOVR modes as equipment changes states (for example, the STBY synchronizer side becomes ACT) and/or the synchronizer locks onto the new timing reference.

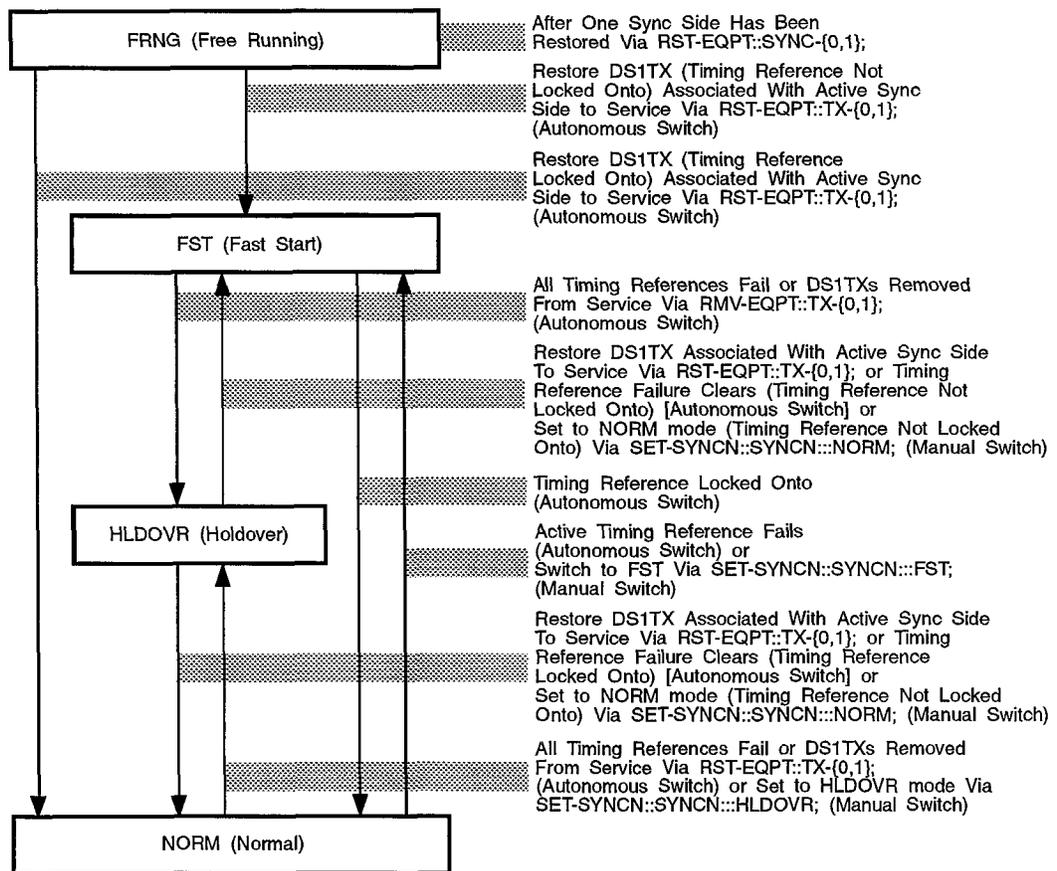
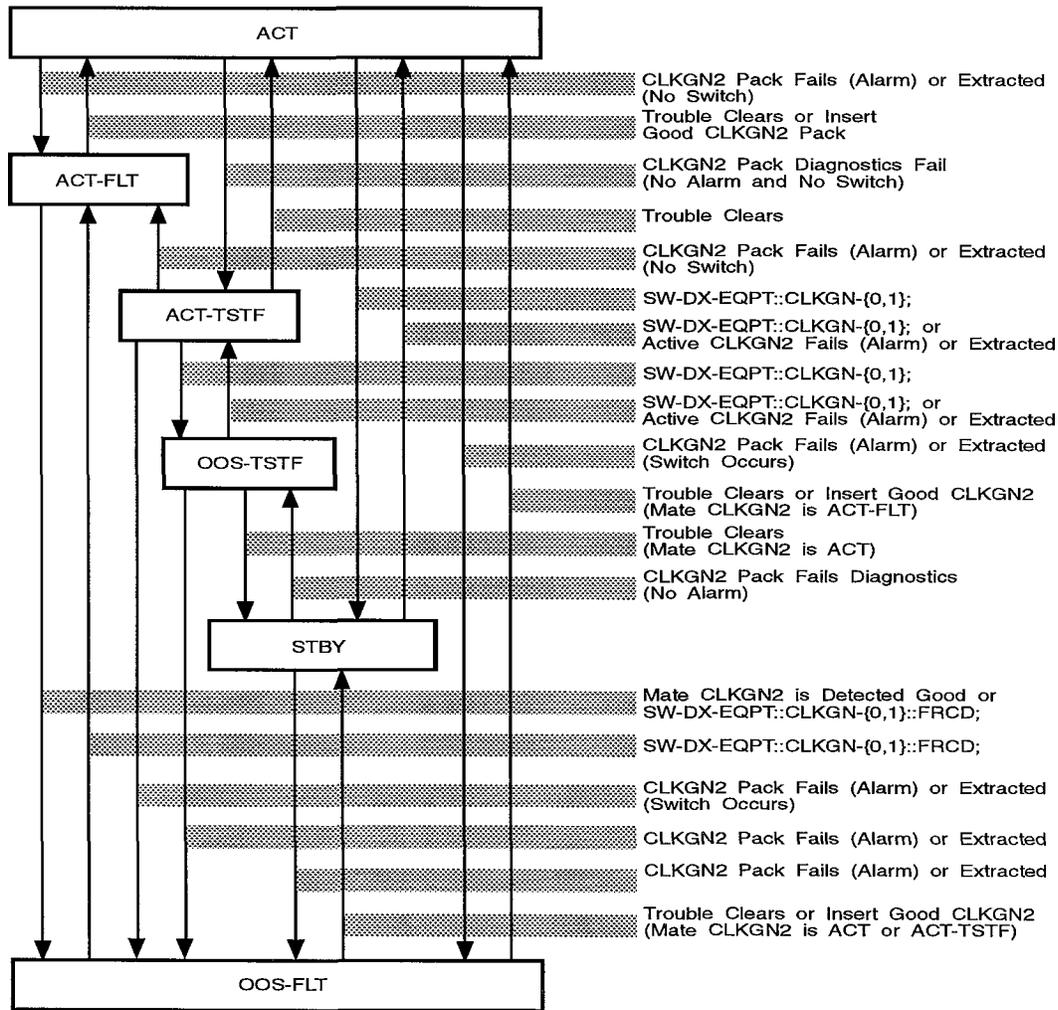


Figure J-10. Synchronizer Mode Transition Diagram

**Clock Generator (CLKGN)**

The DACS IV-2000 Release 4.0 when being used without a Synchronizer Module (no SONET capabilities), CLKGN2 circuit packs are used. When a Synchronizer Module is present (SONET capabilities), CLKGN3 circuit packs are used. State transition diagrams are provided for both CLKGN circuit packs in this section.

**Clock Generator 2 (CLKGN2)**

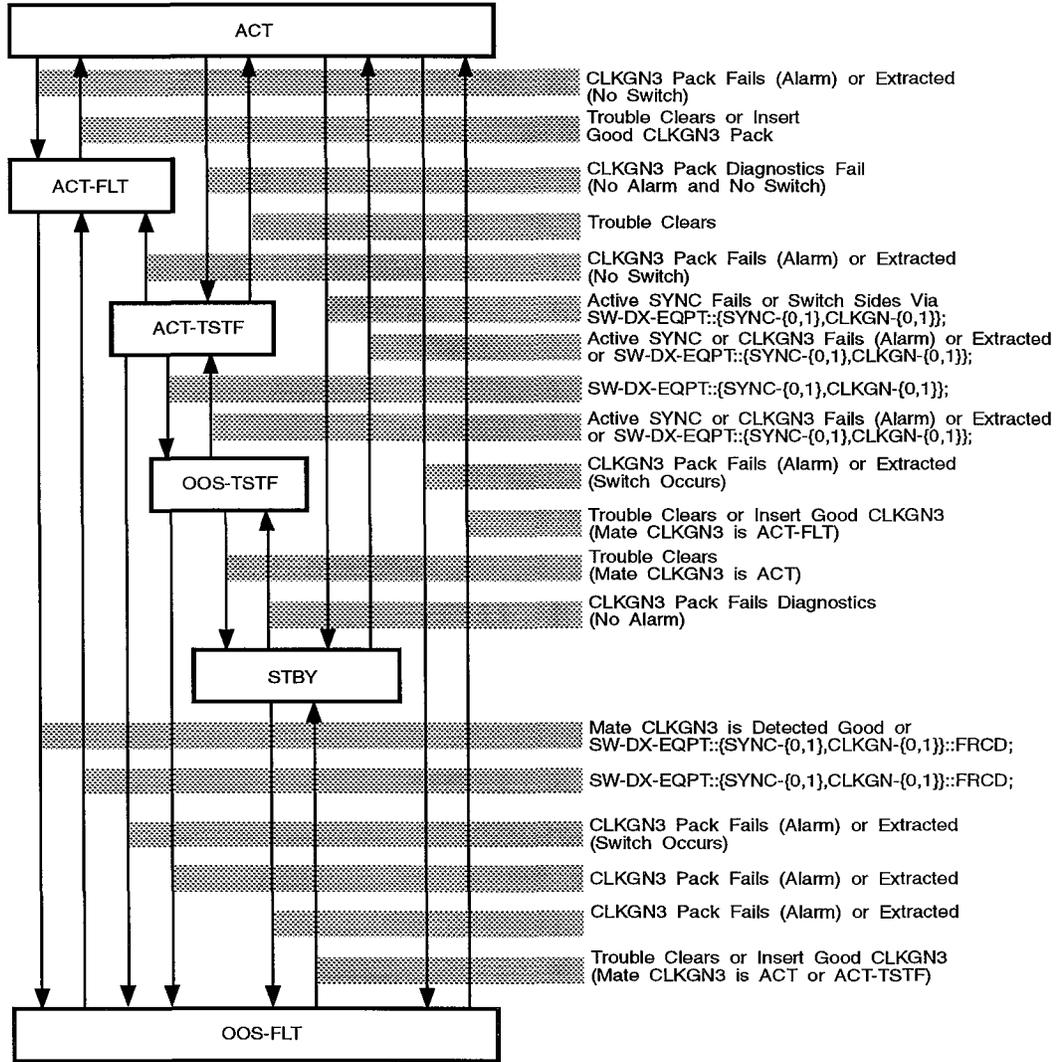


**Note:** The FLT state is entered when diagnostics fail and error recovery detects the failure. The TSTF state is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-11. Clock Generator 2 (CLKGN2) State Transition Diagram

**Clock Generator 3 (CLKGN3)**

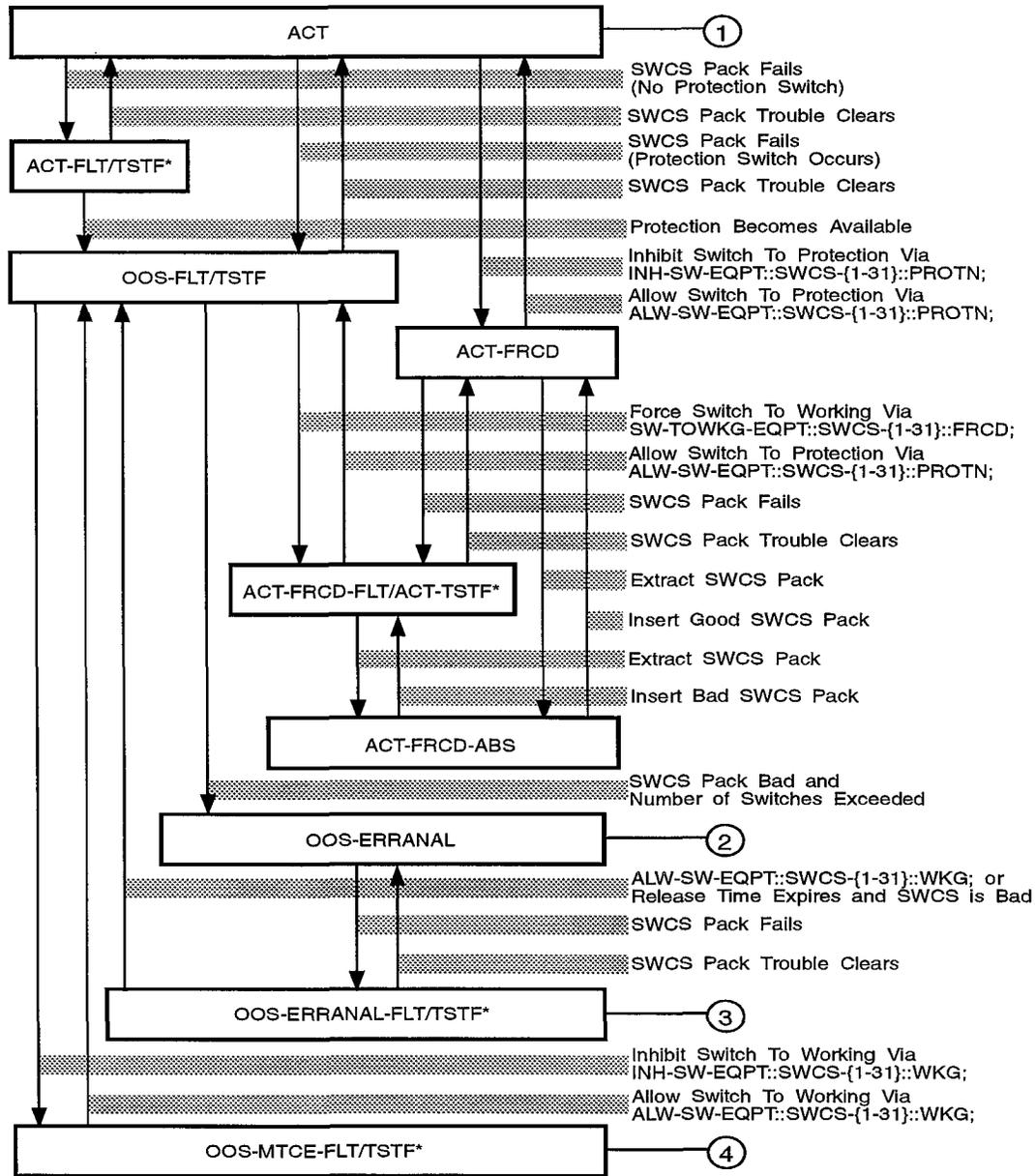
CLKGN3 circuit packs are used in conjunction with the Synchronizer Module circuit packs. That is, CLKGN-0 is associated with SYNC-0 and CLKGN-1 is associated with SYNC-1. Switching either the SYNC or CLKGN causes both the SYNC and CLKGN to switch from ACT to STBY and vice versa.



**Note:** The FLT state is entered when diagnostics fail and error recovery detects the failure. The TSTF state is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

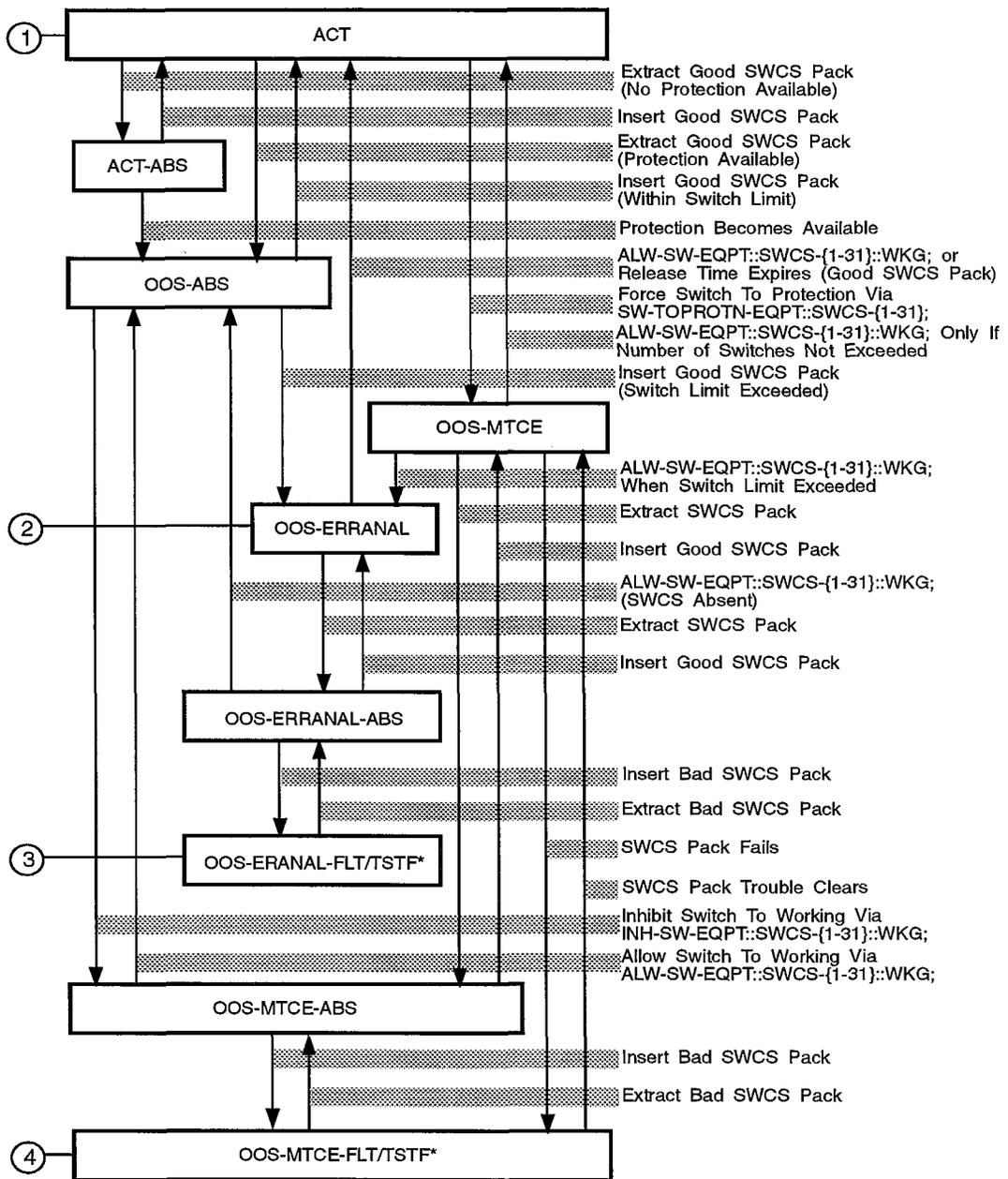
Figure J-12. Clock Generator 3 (CLKGN3) State Transition Diagram

Switch Center Stage (SWCS-{1-31})



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-13. Switch Center Stage (SWCS-{1-31}) State Transition Diagram (Sheet 1 of 2)

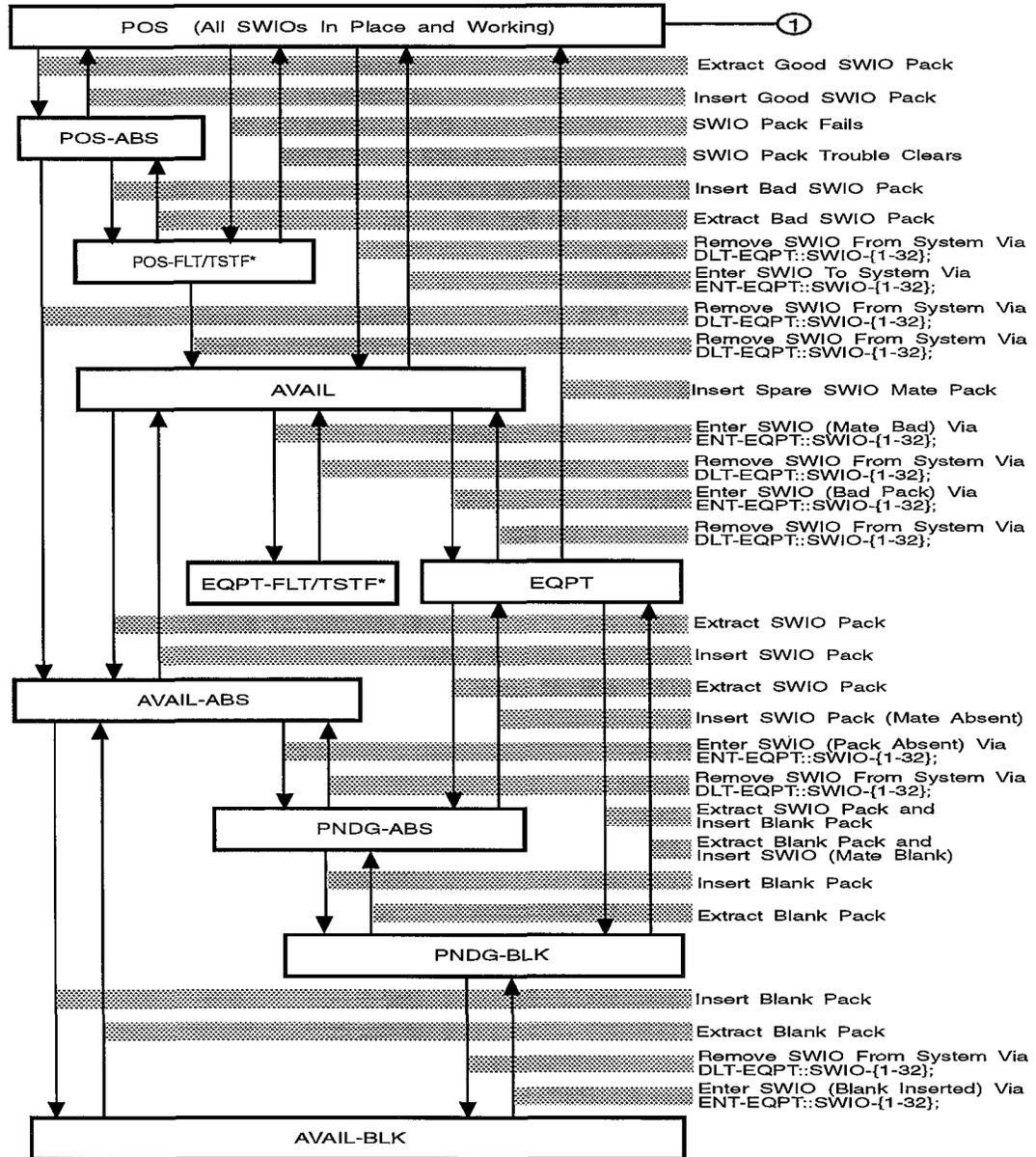


\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-13. Switch Center Stage (SWCS-{1-32}) State Transition Diagram (Sheet 2 of 2)

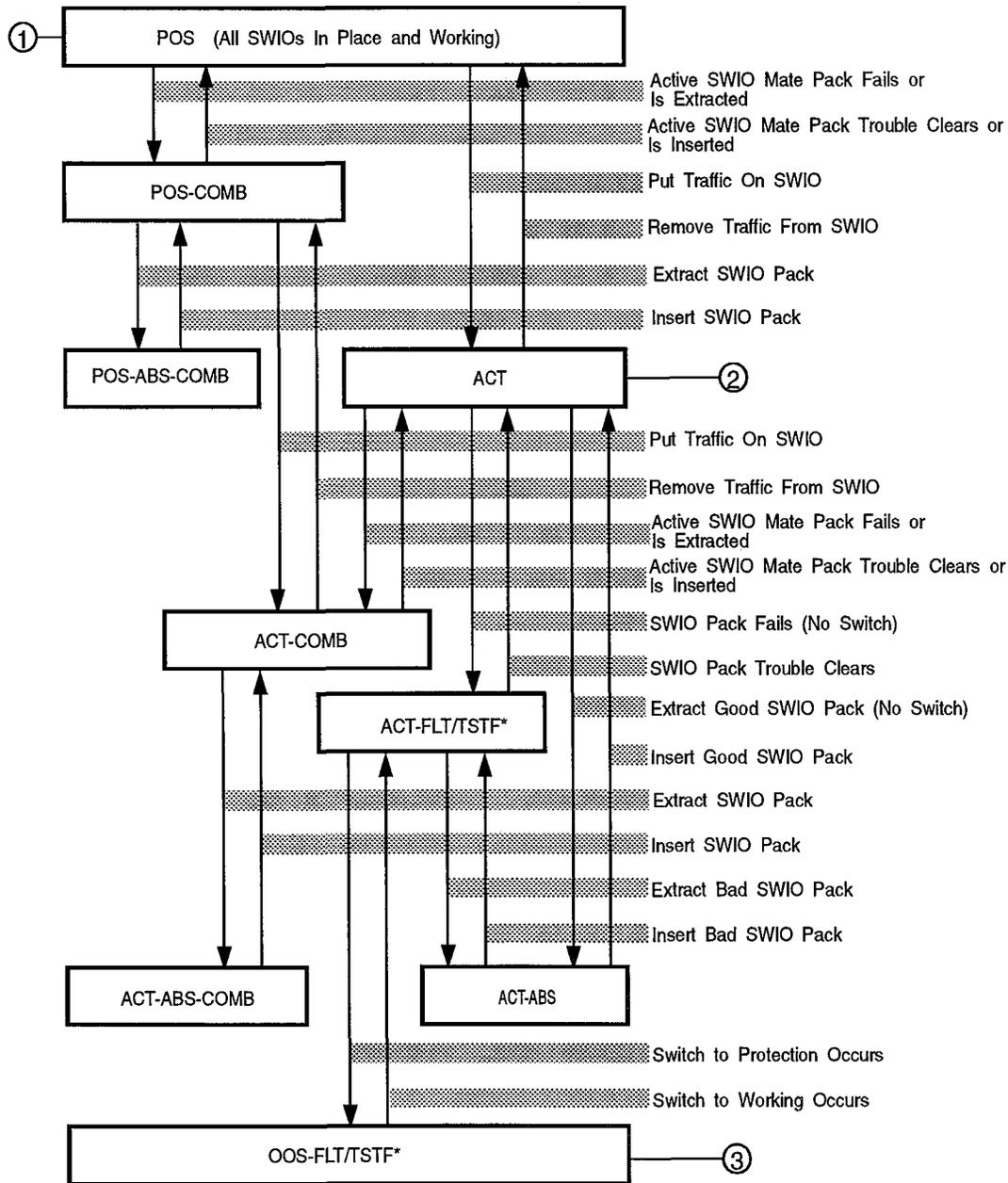


**Switch Input/Output (SWIO)**



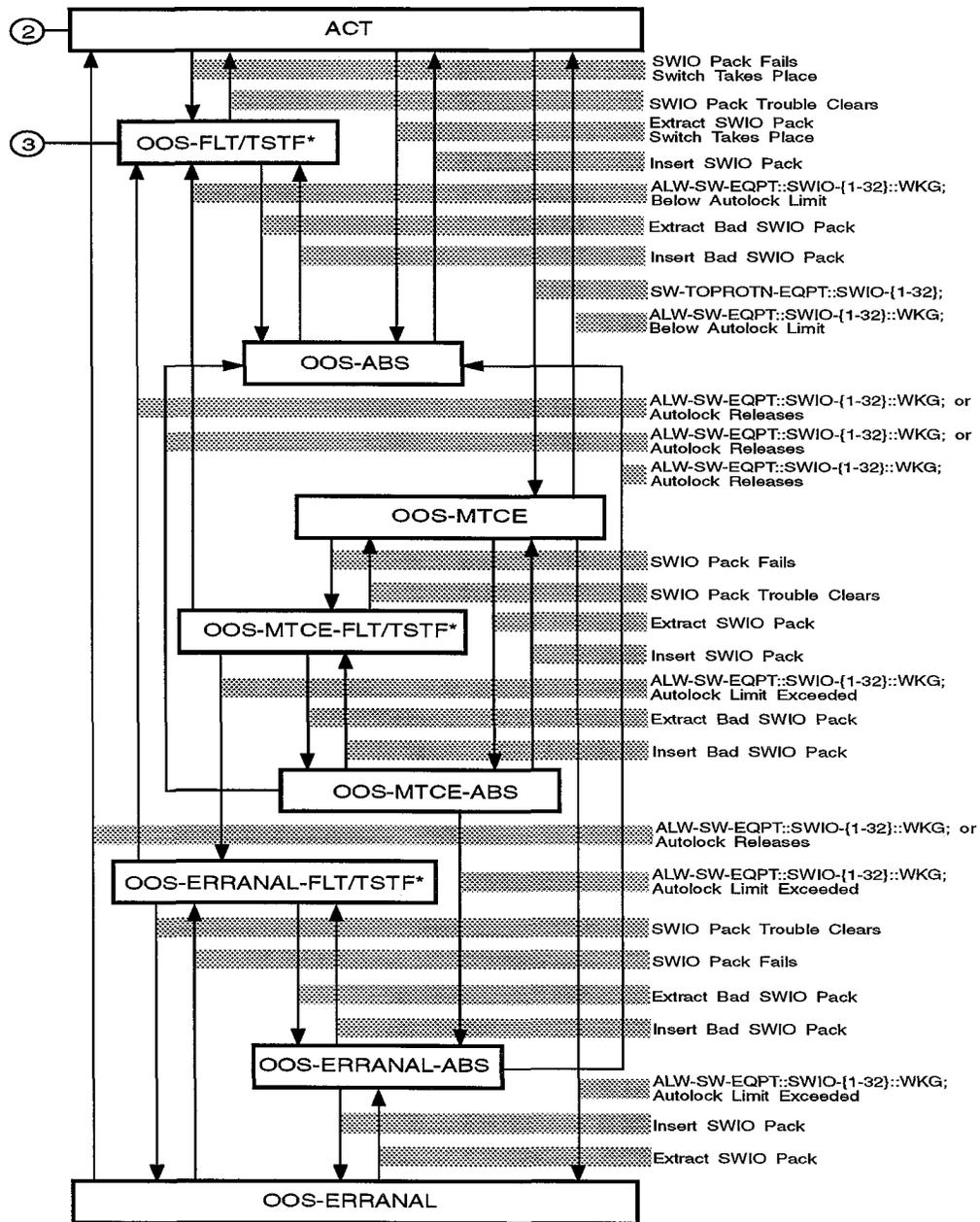
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-15. Switch Input/Output (SWIO) State Transition Diagram (Sheet 1 of 3)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-15. Switch Input/Output (SWIO) State Transition Diagram (Sheet 2 of 3)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-15. Switch Input/Output (SWIO) State Transition Diagram (Sheet 3 of 3)

Unit

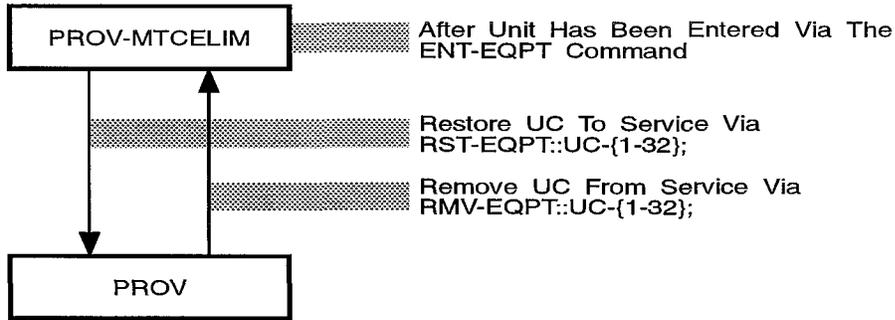


Figure J-16. Unit State Transition Diagram

Unit Controller (UC)

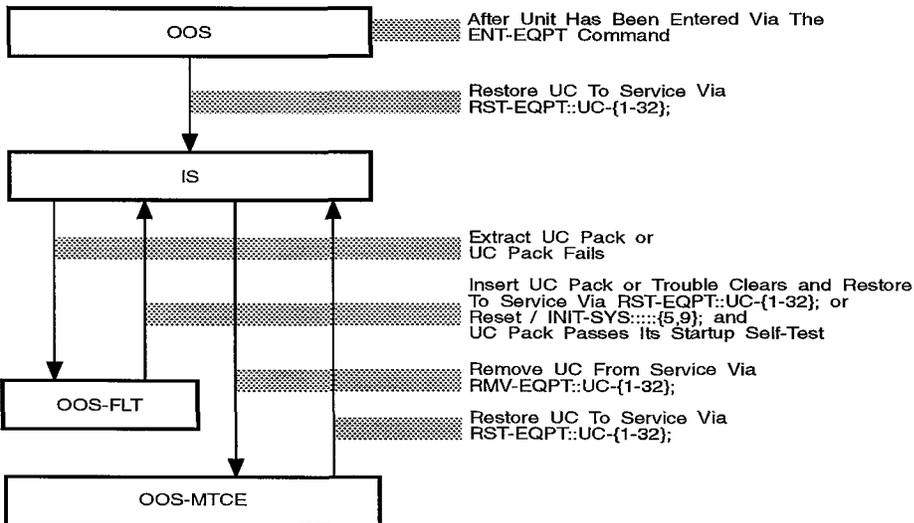


Figure J-17. Unit Controller (UC) State Transition Diagram

**Clock Distributor (CLKDR)**

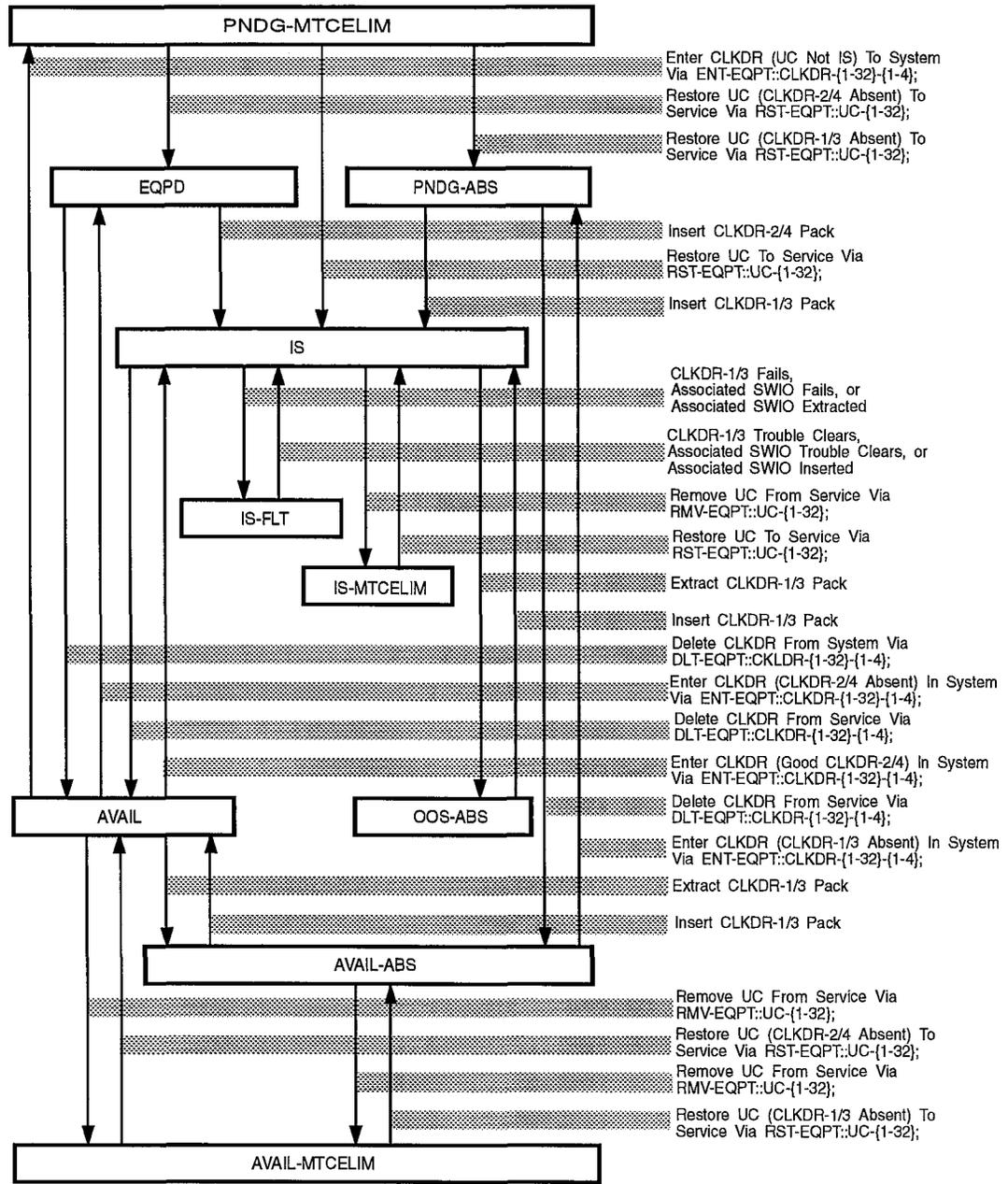


Figure J-18. Clock Distributor (CLKDR) State Transition Diagram

DS1 Relay (DS1RY)

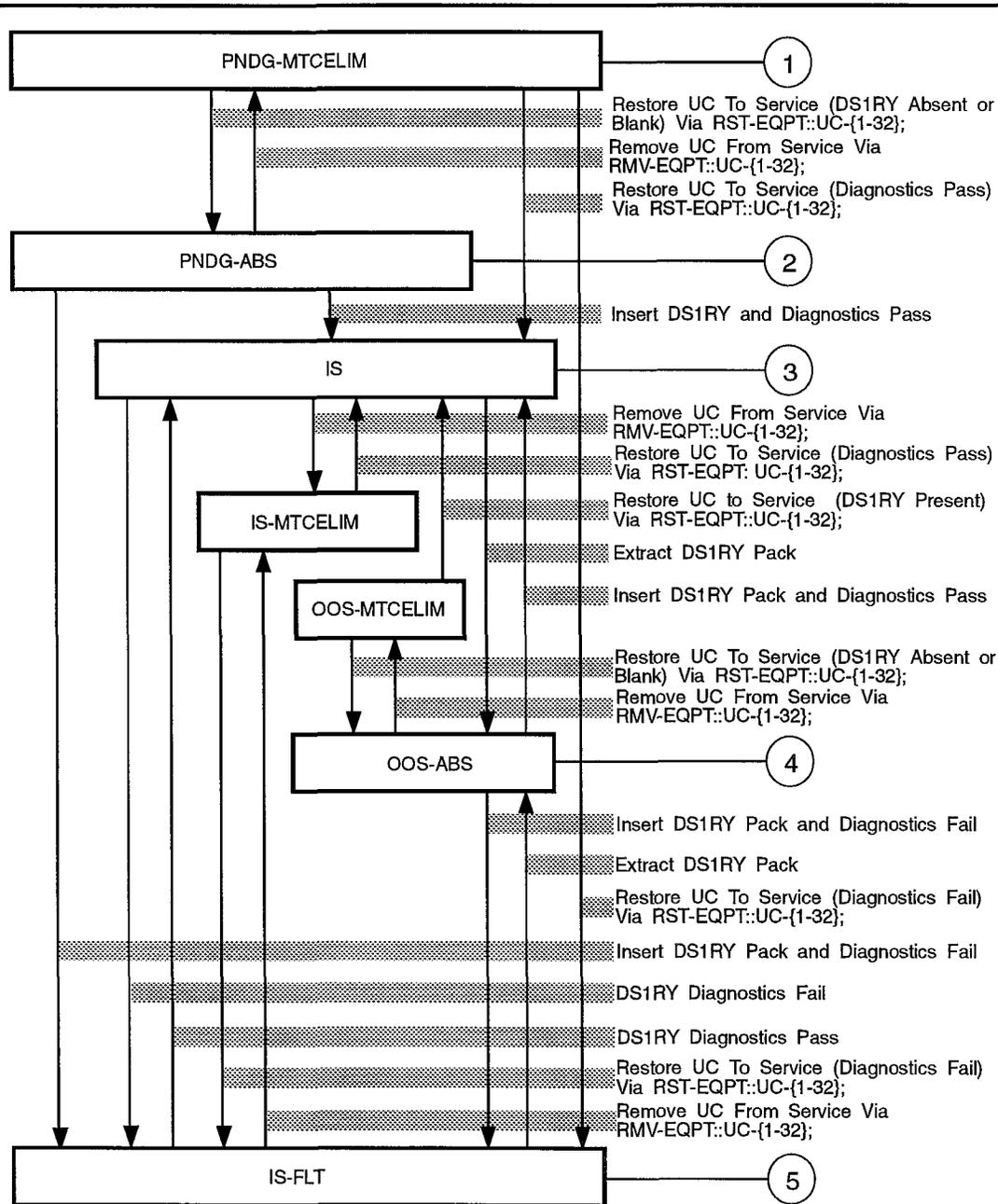


Figure J-19. DS1 Relay (DS1RY) State Transition Diagram (Sheet 1 of 2)

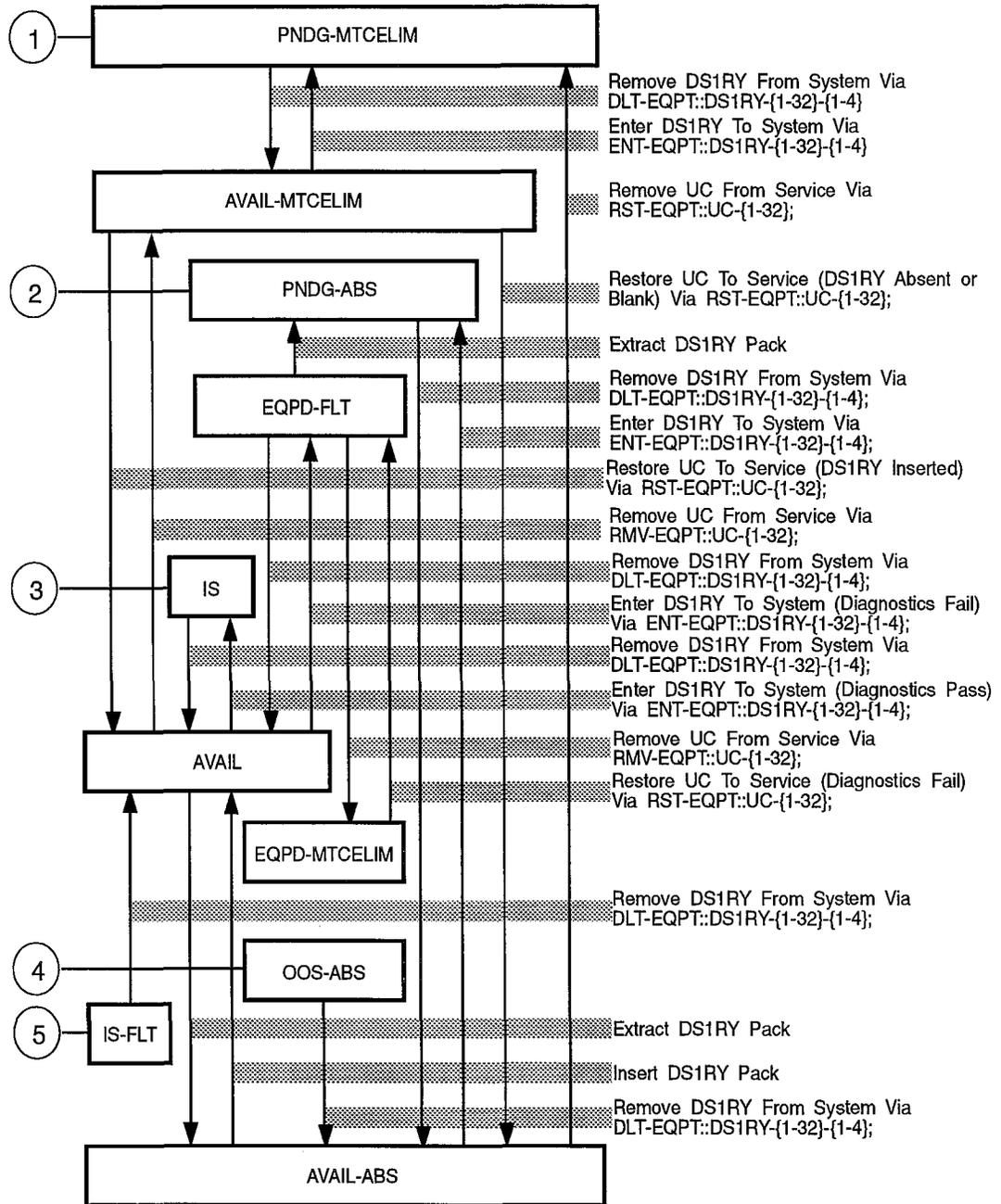
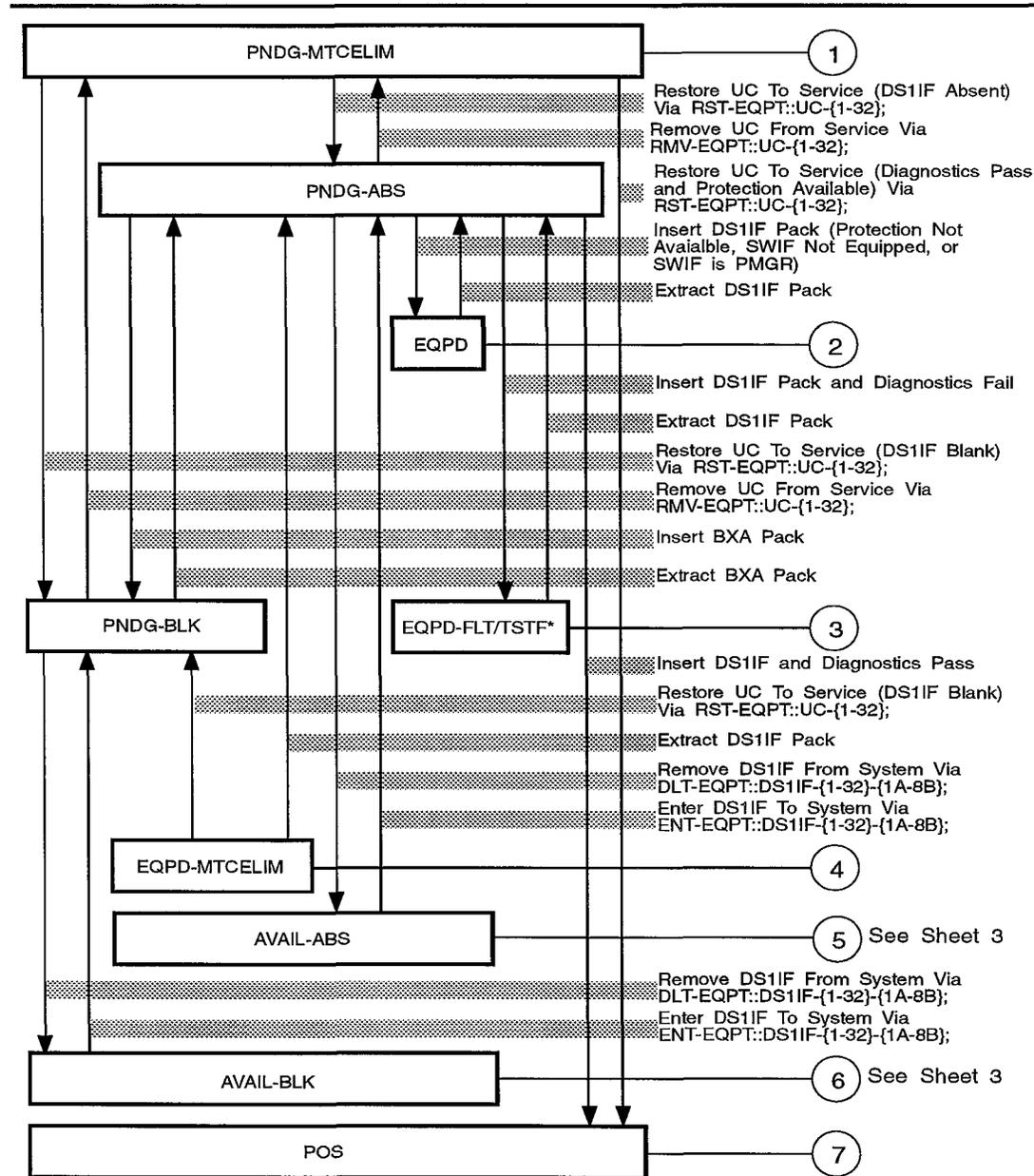


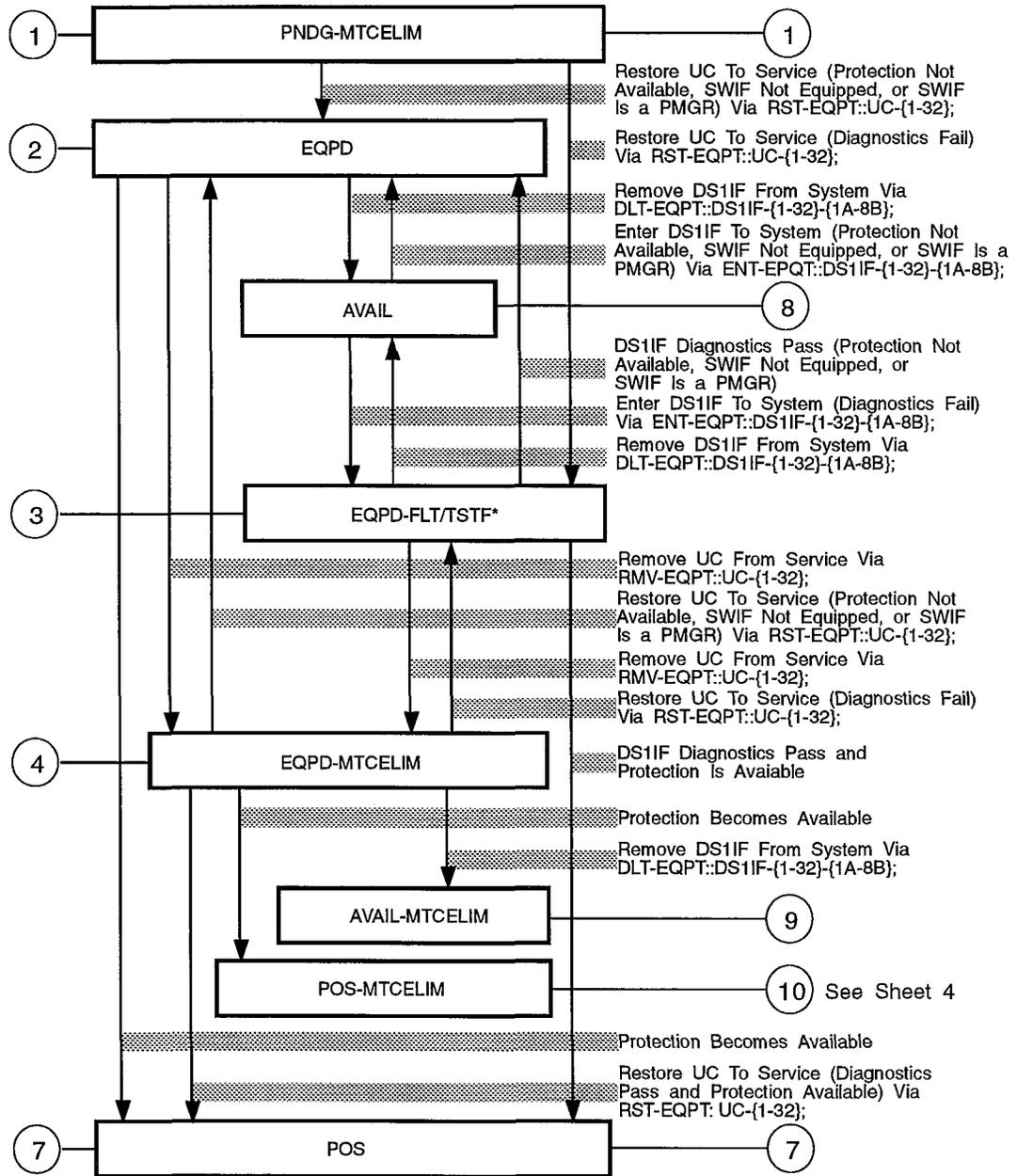
Figure J-19. DS1 Relay (DS1RY) State Transition Diagram (Sheet 1 of 2)

DS1 Interface (DS1IF)



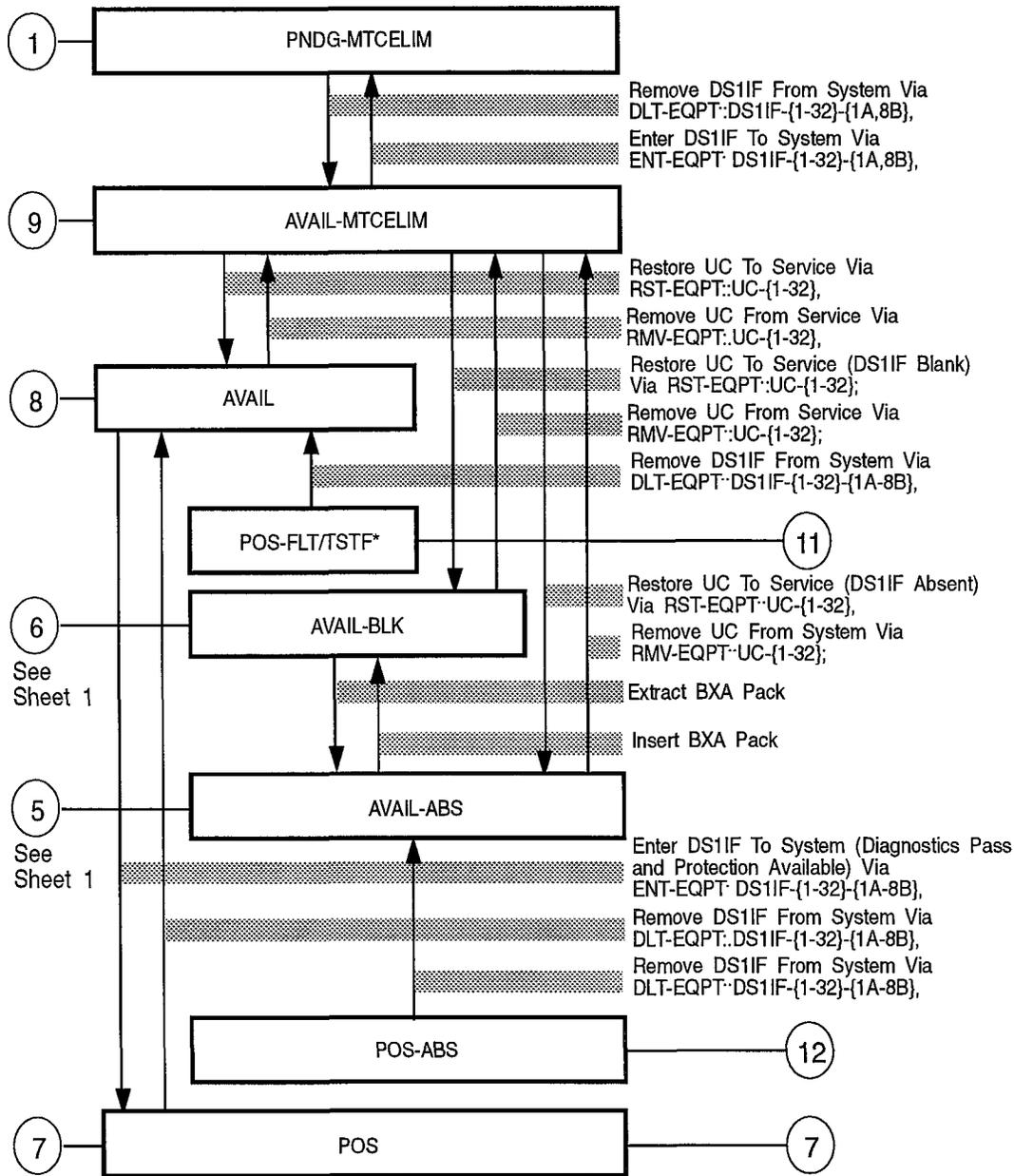
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 1 of 11)



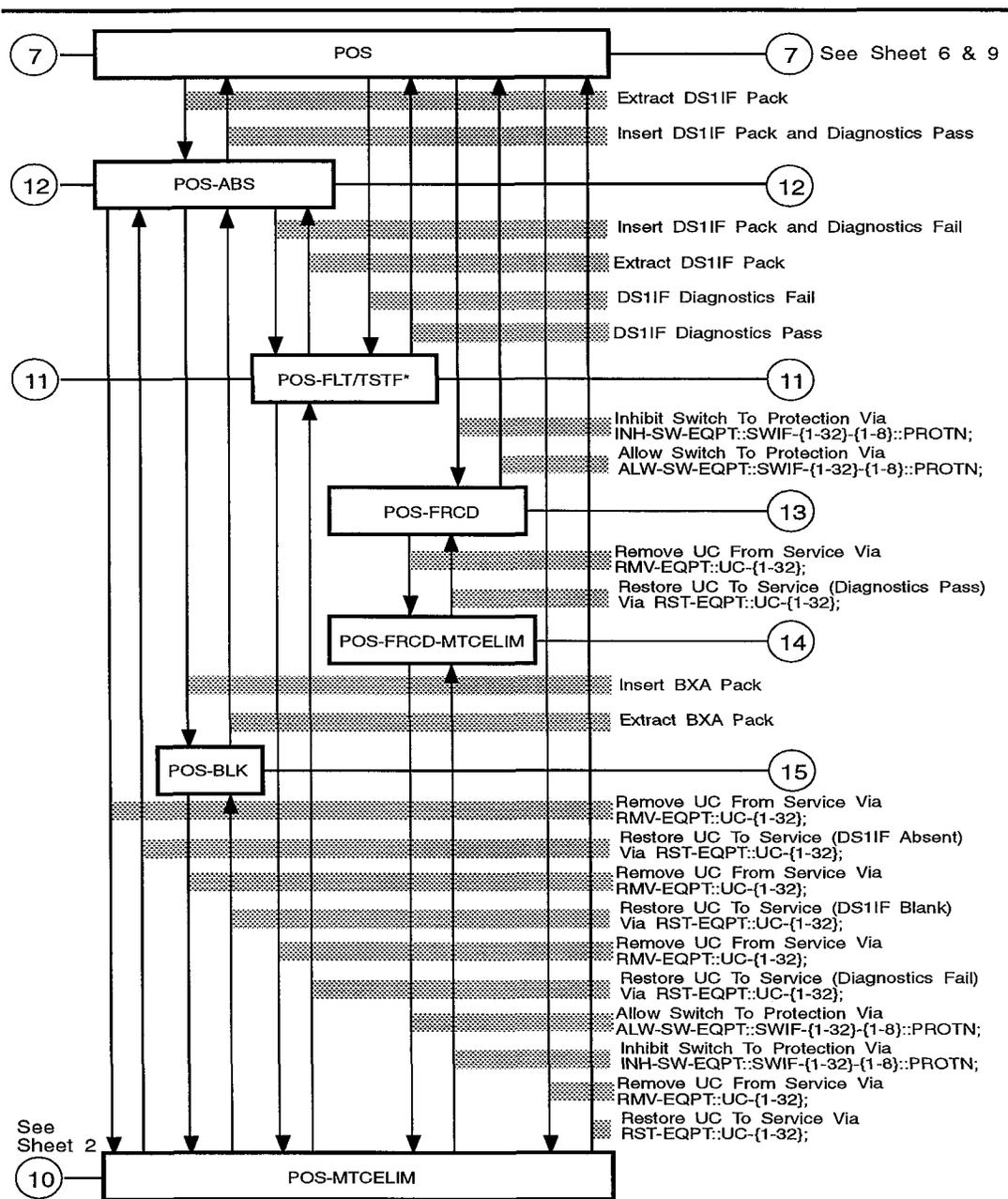
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 2 of 11)



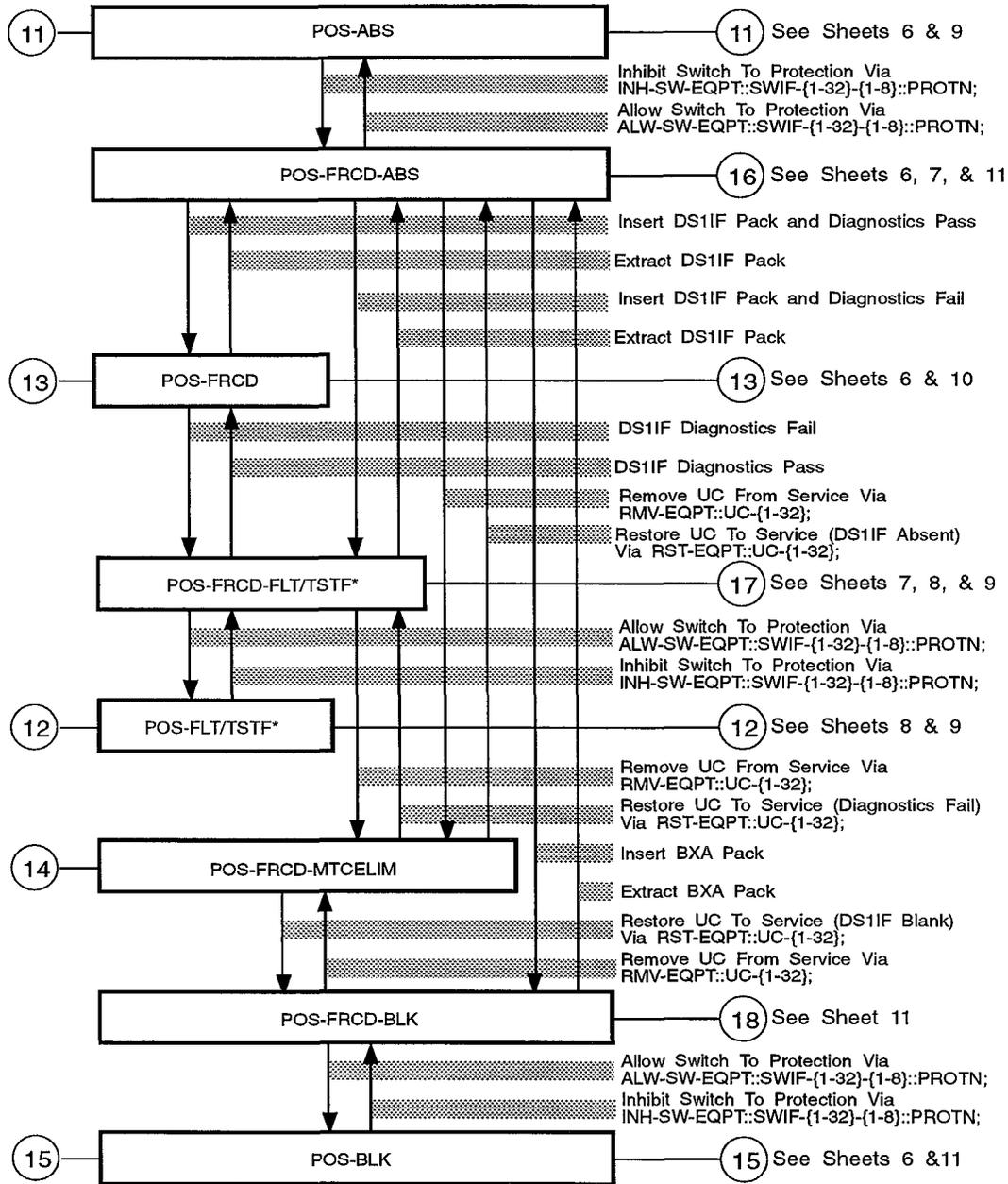
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 3 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 4 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 5 of 11)

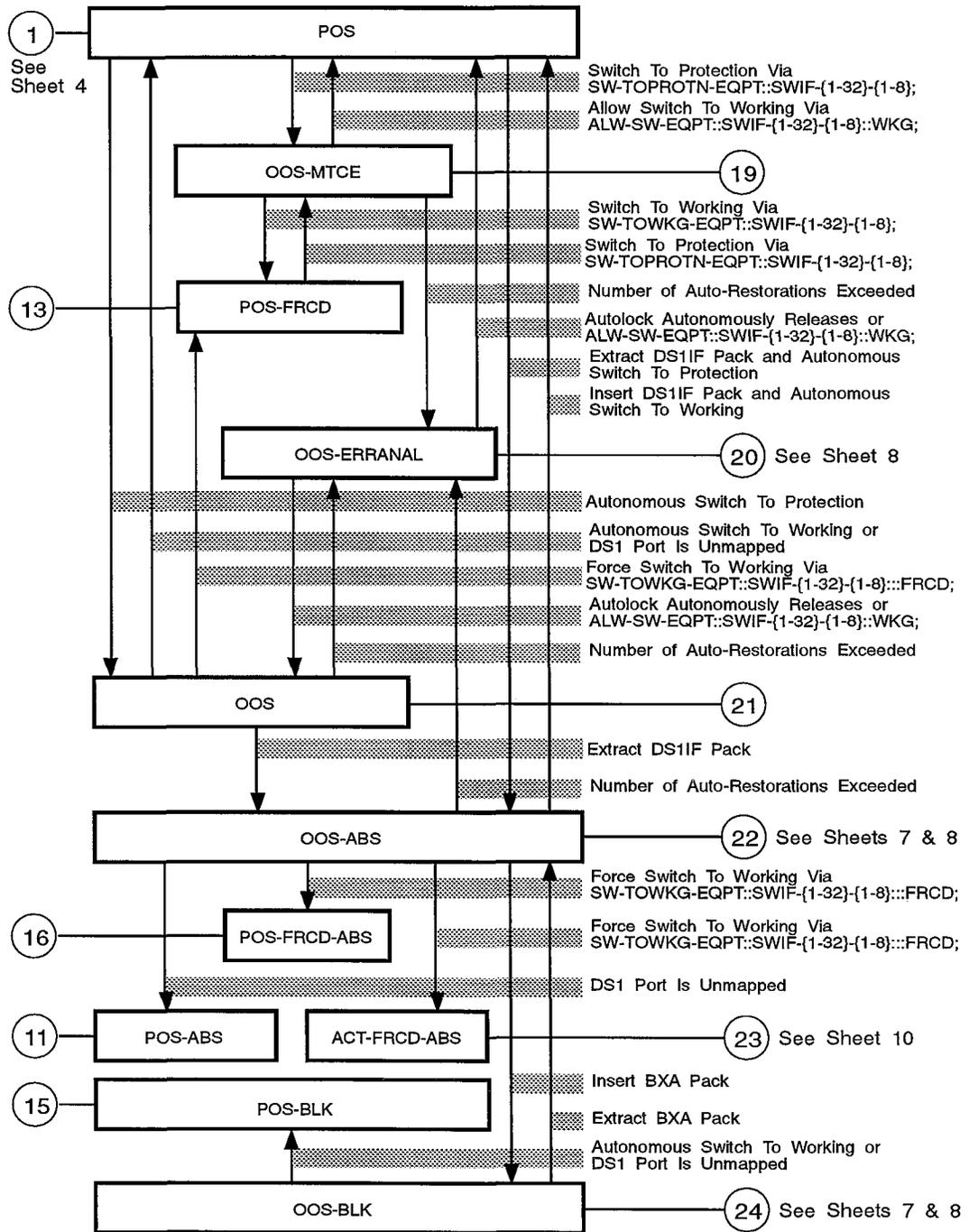
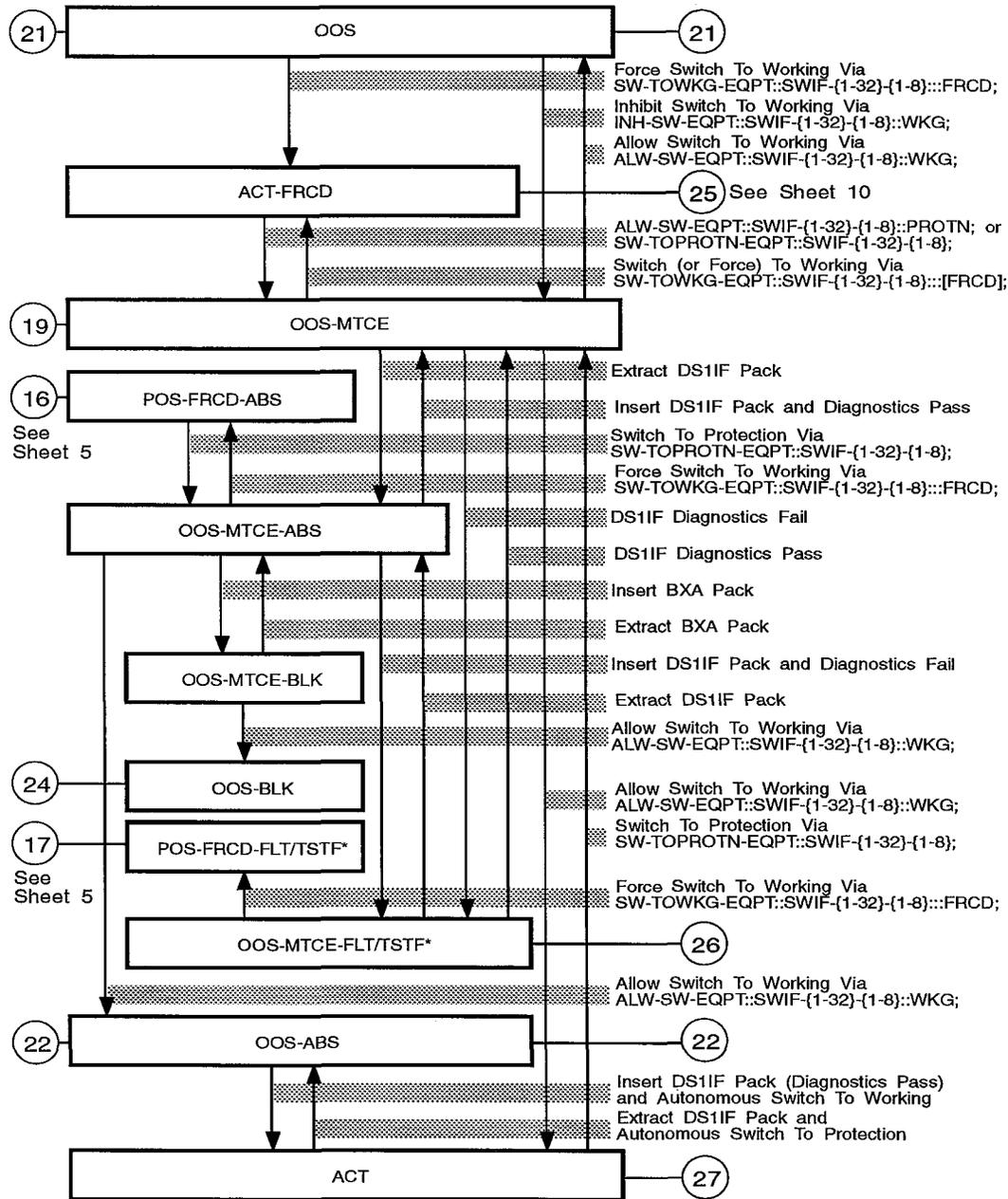
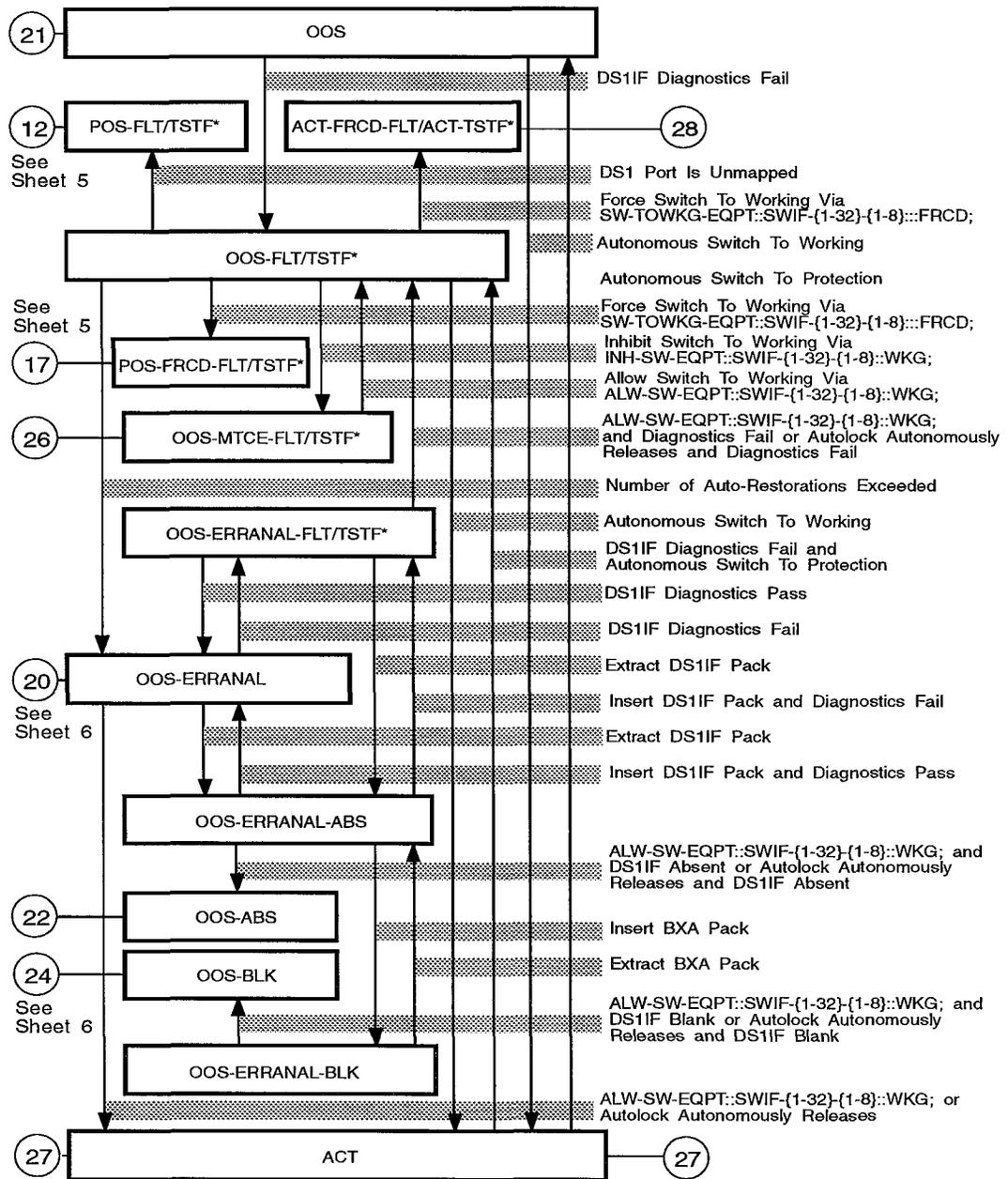


Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 6 of 11)



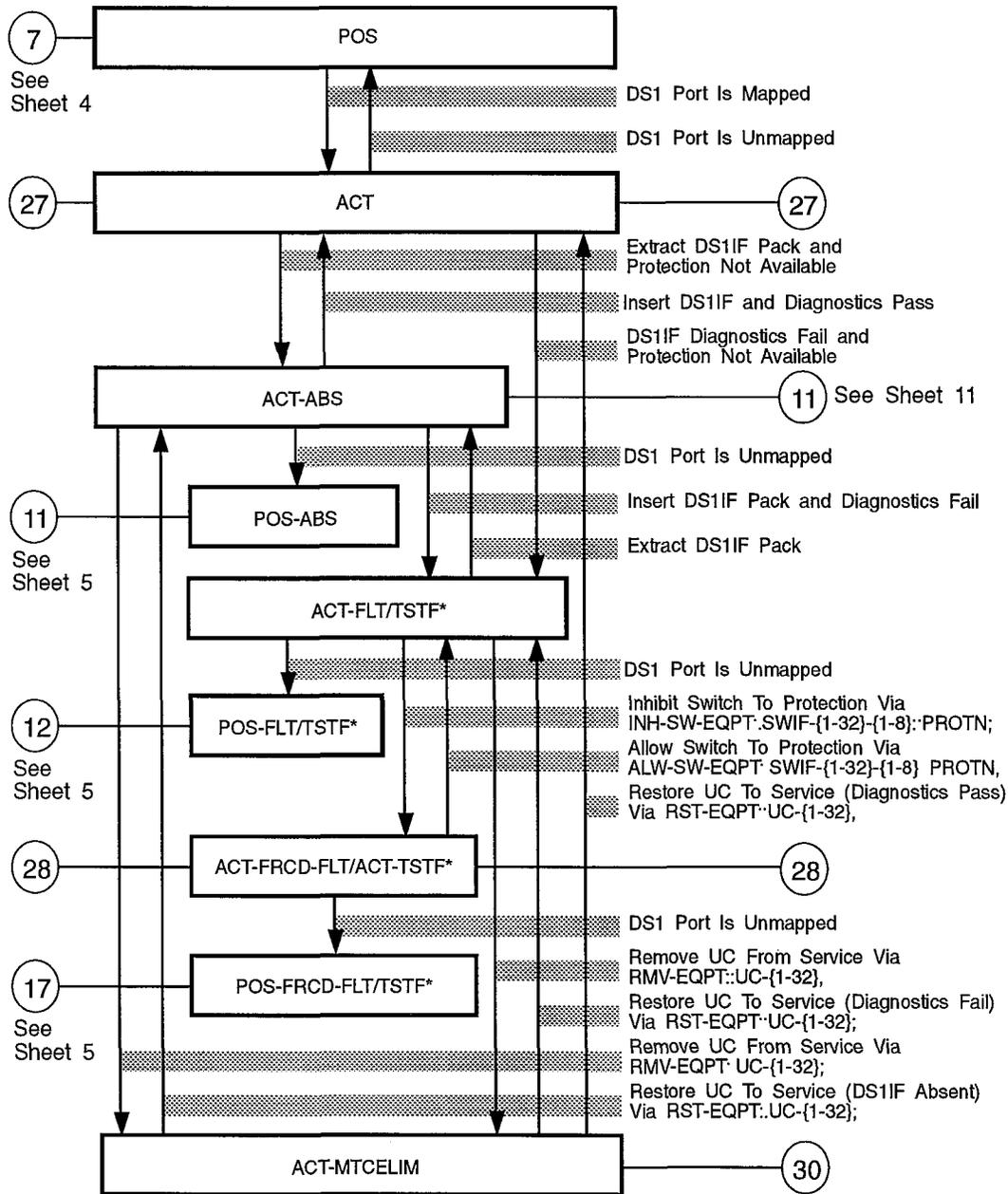
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 7 of 11)



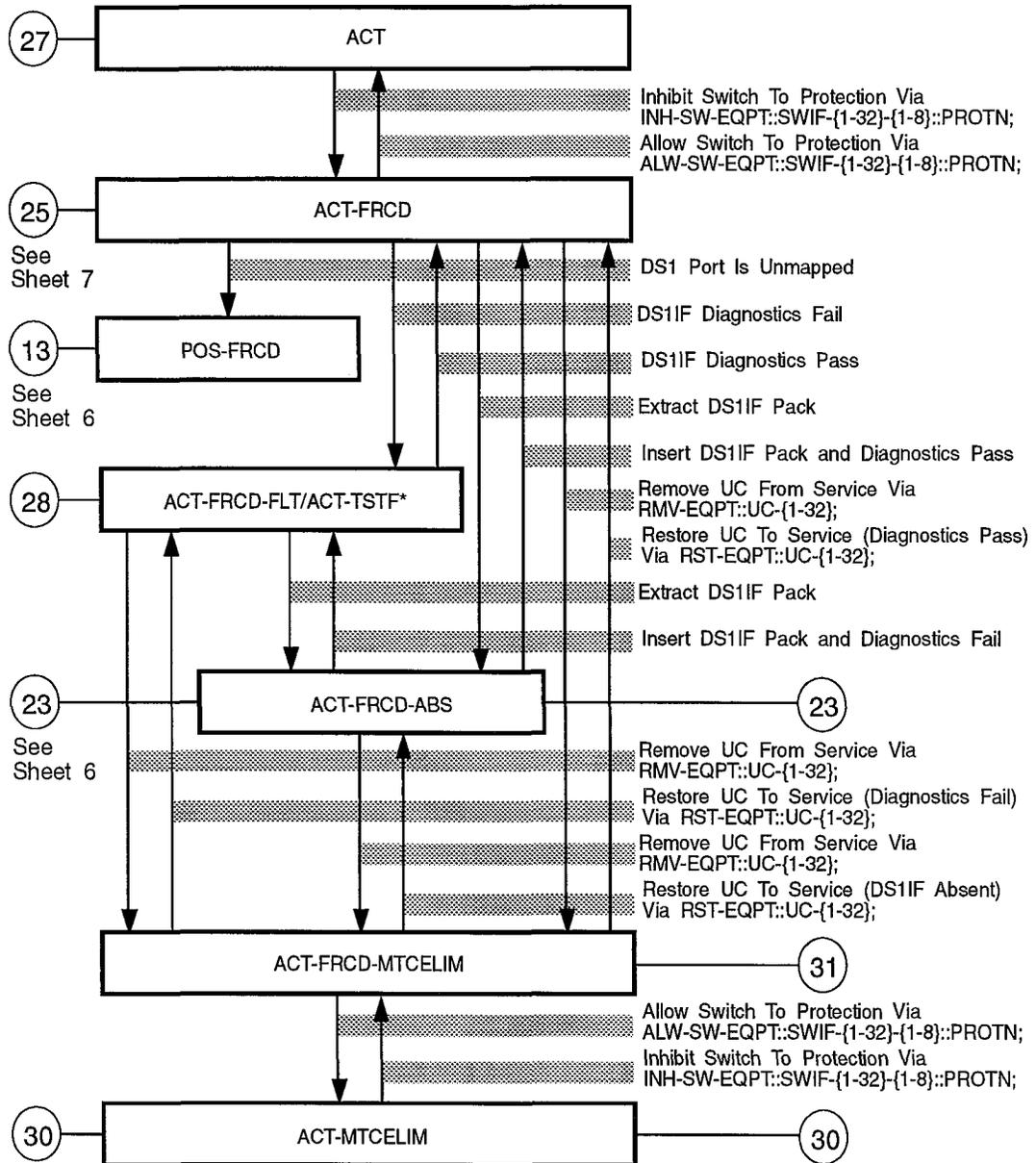
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 8 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 9 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 10 of 11)

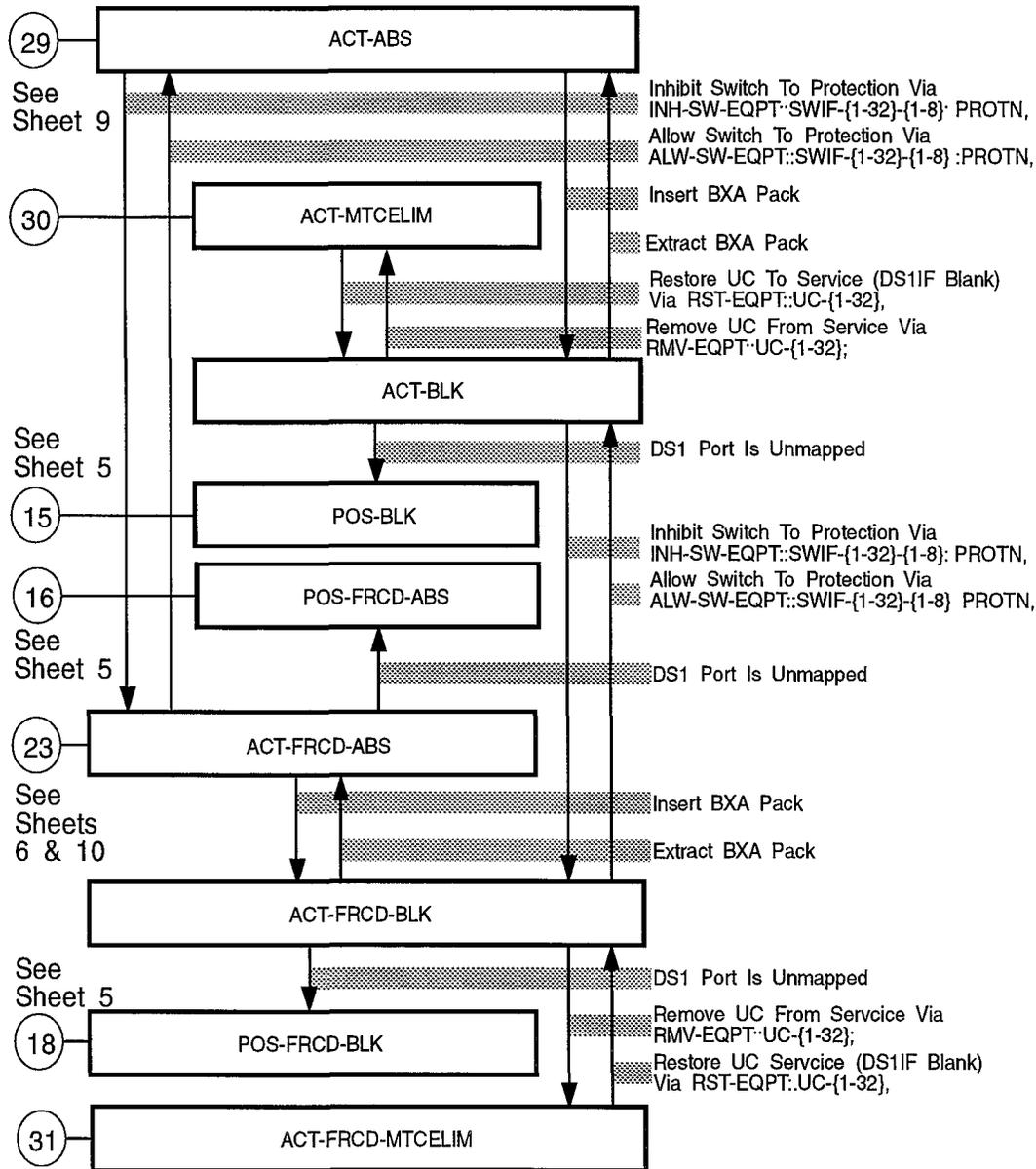
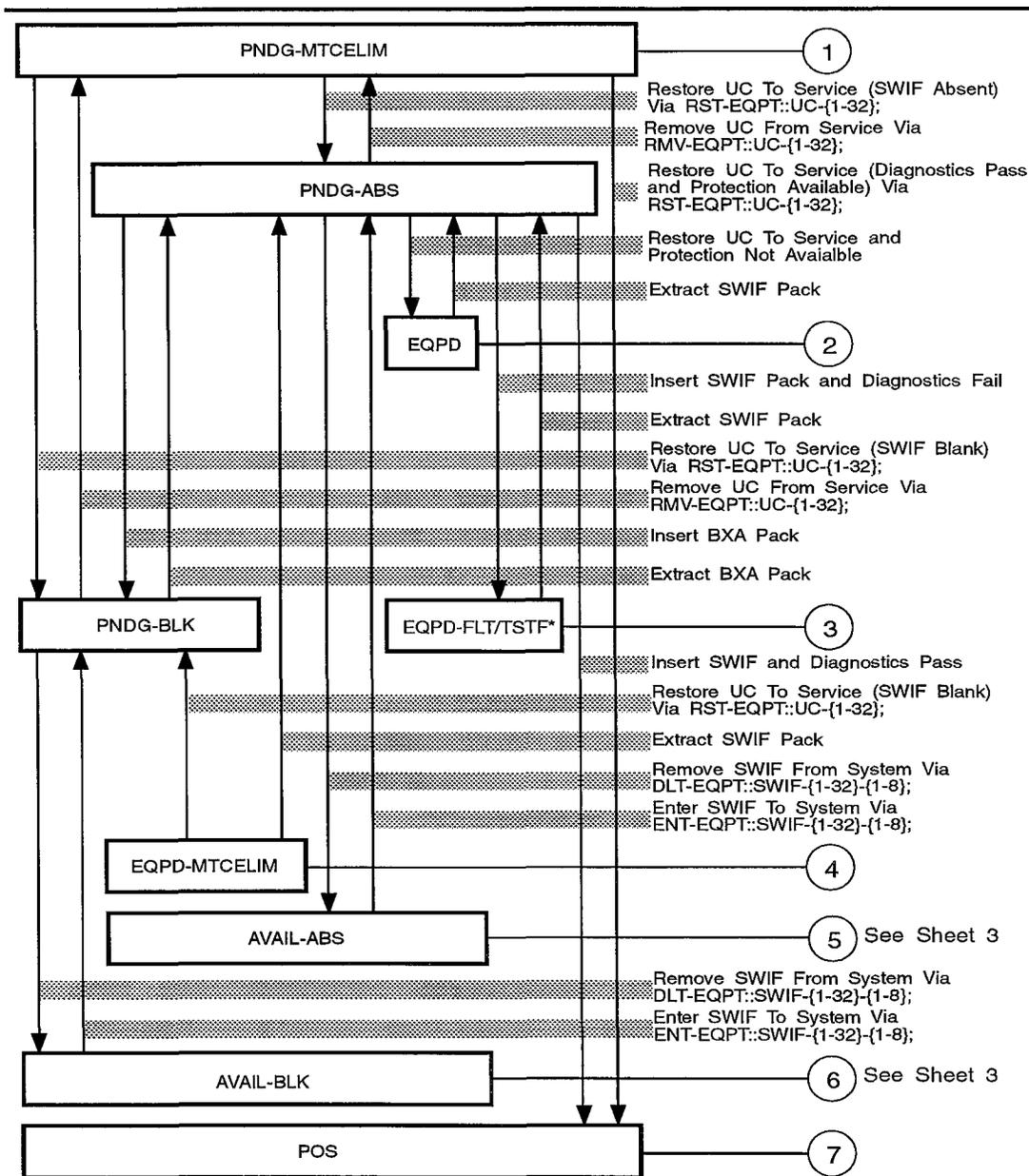


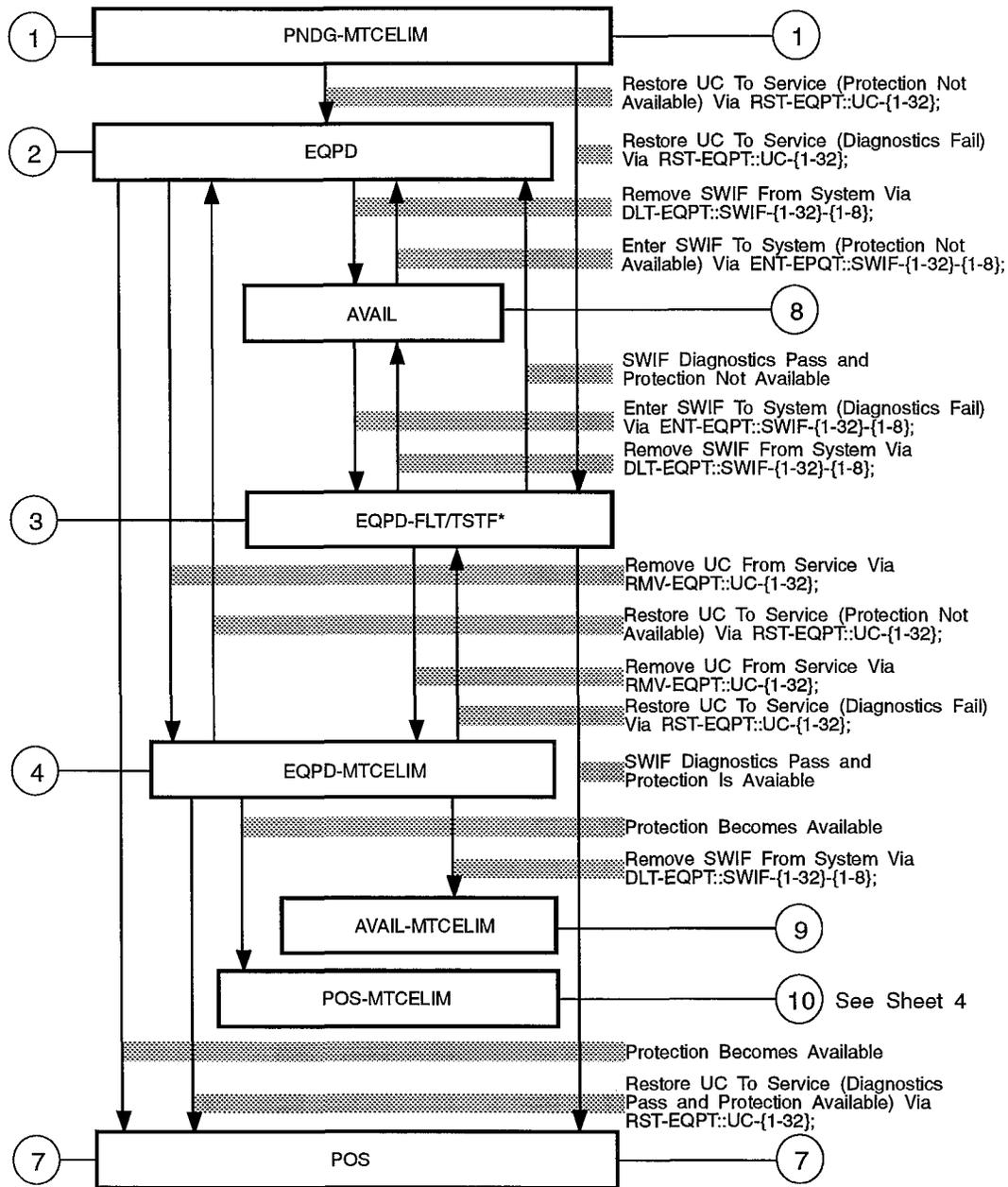
Figure J-20. DS1 Interface (DS1IF) State Transition Diagram (Sheet 11 of 11)

Switch Interface (SWIF)



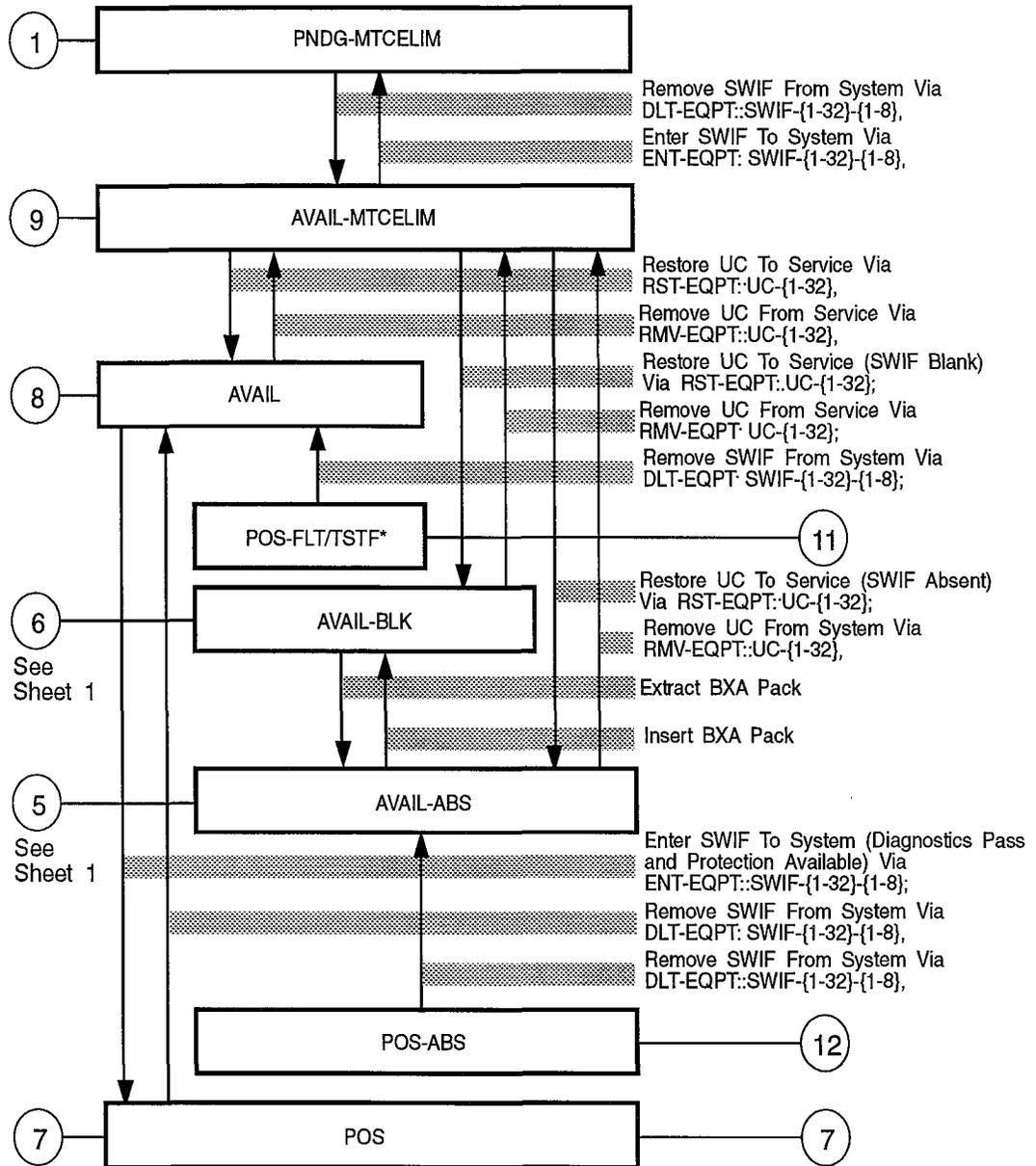
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 1 of 11)



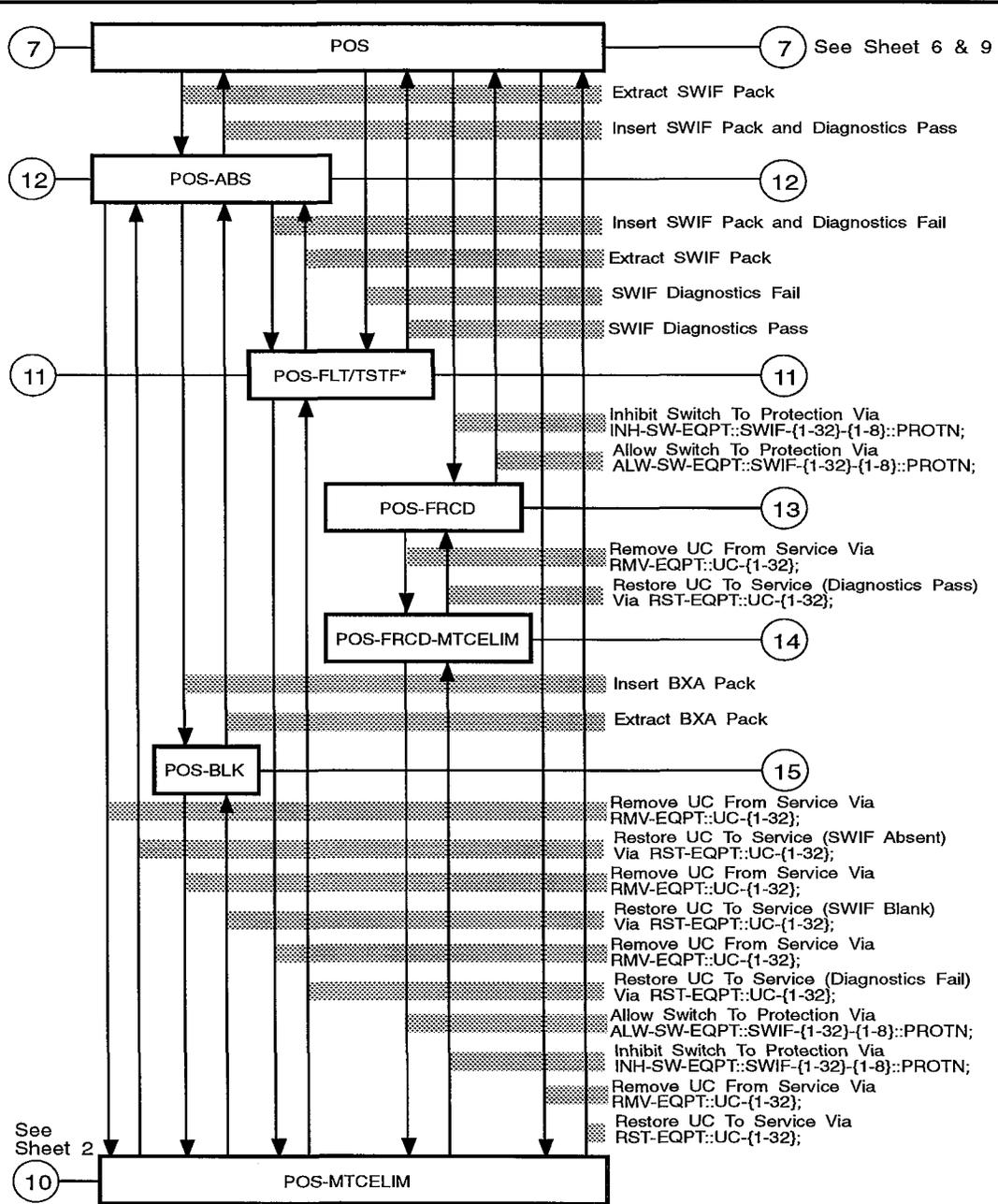
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 2 of 11)



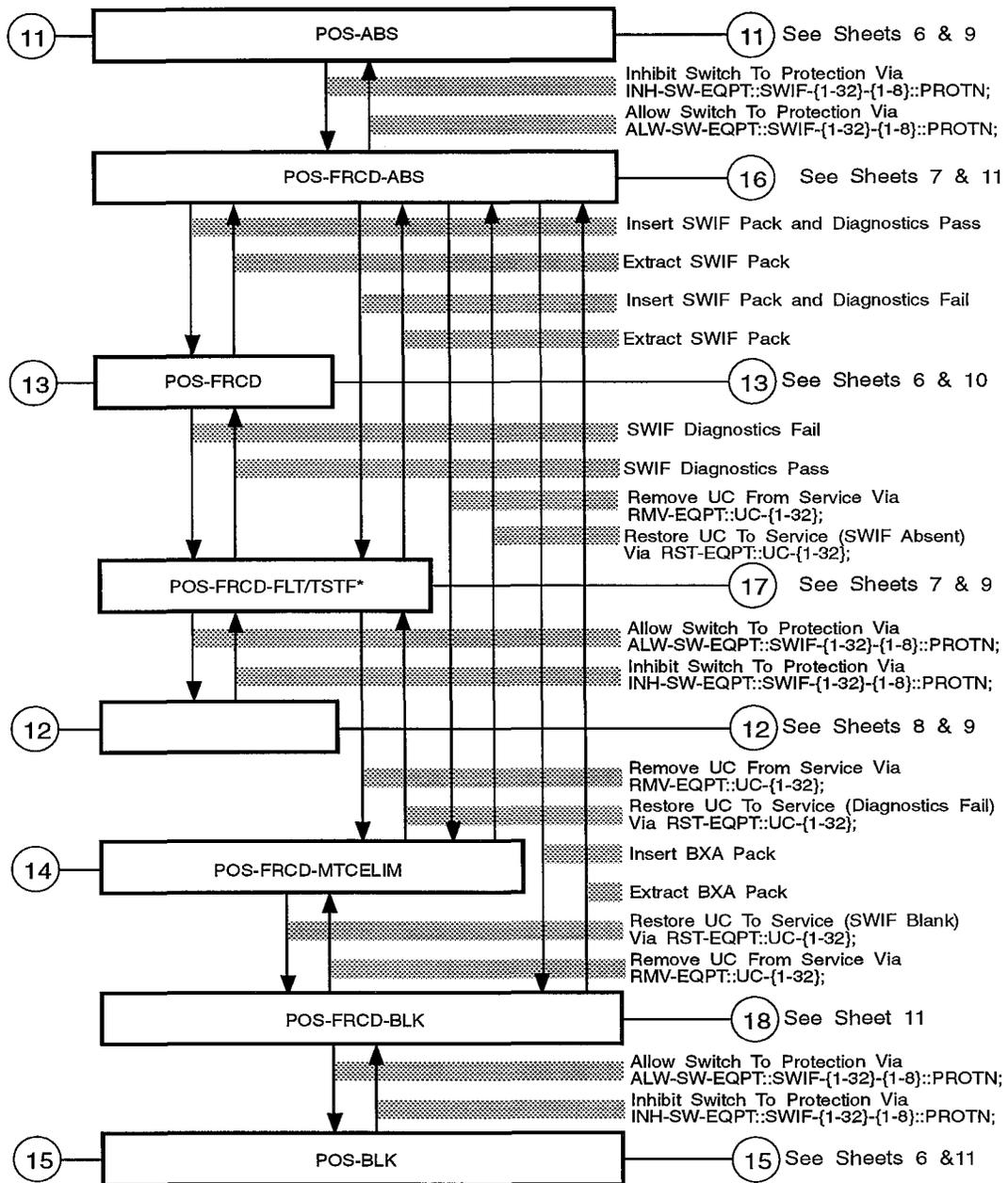
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 3 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 4 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 5 of 11)

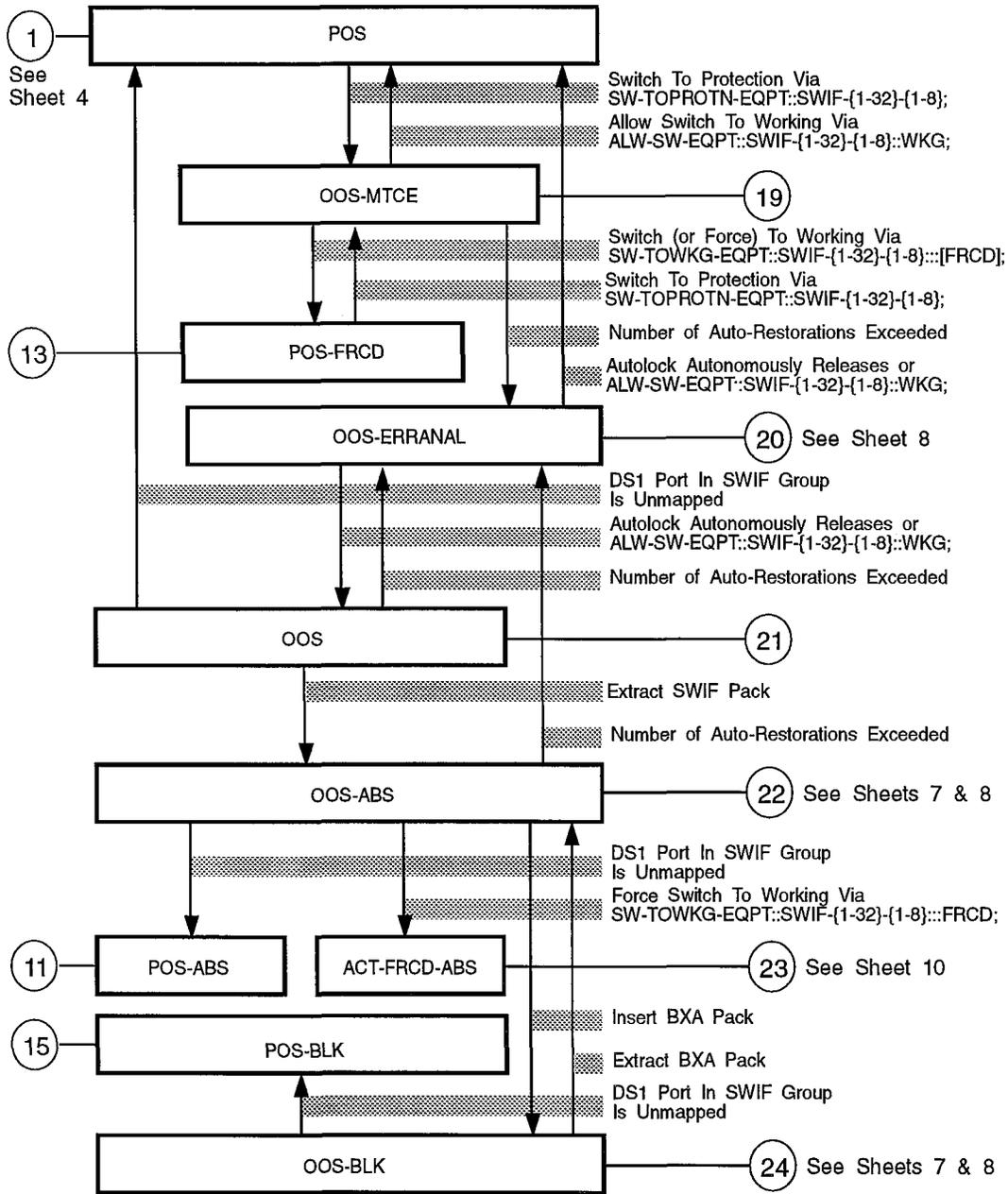
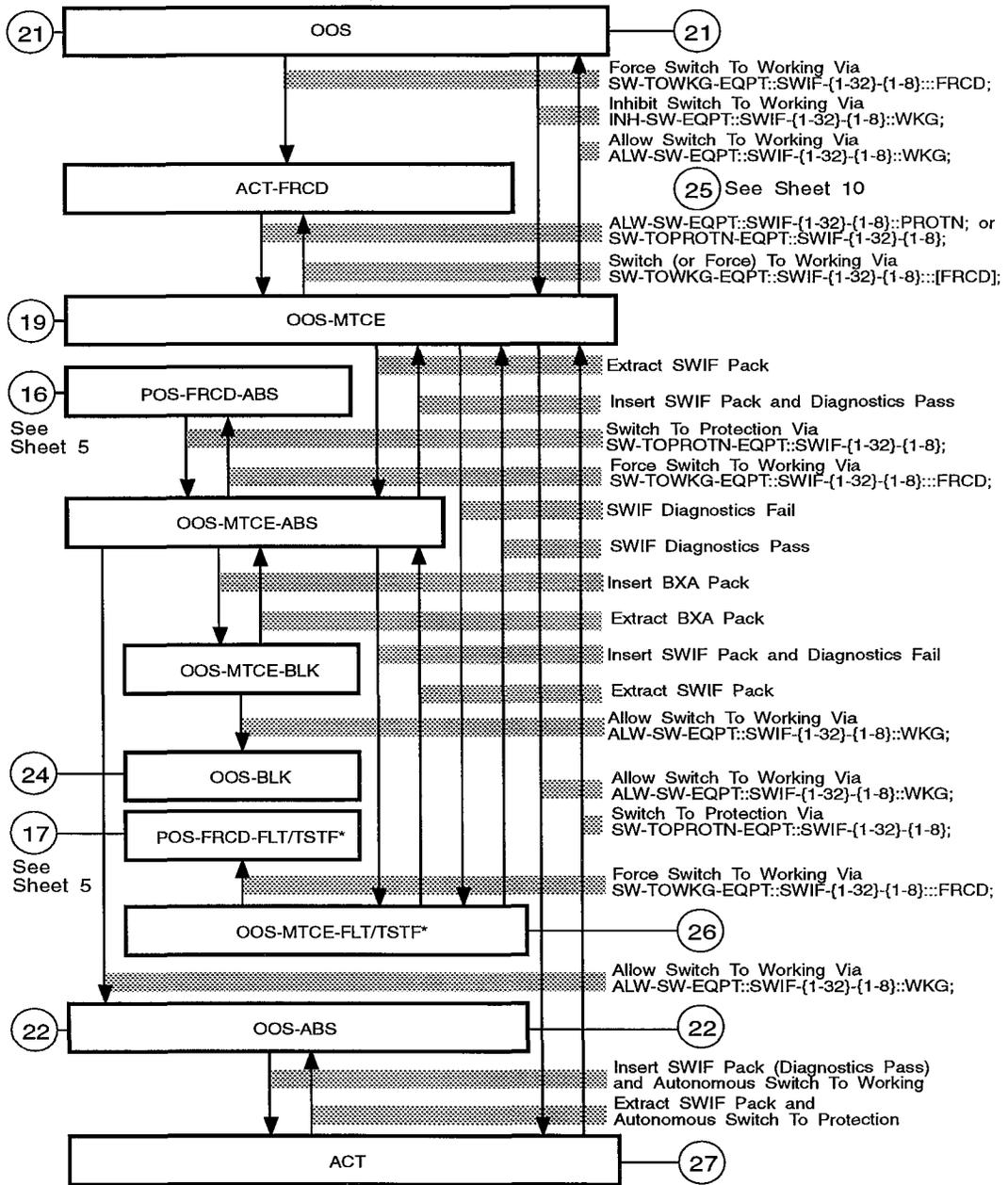
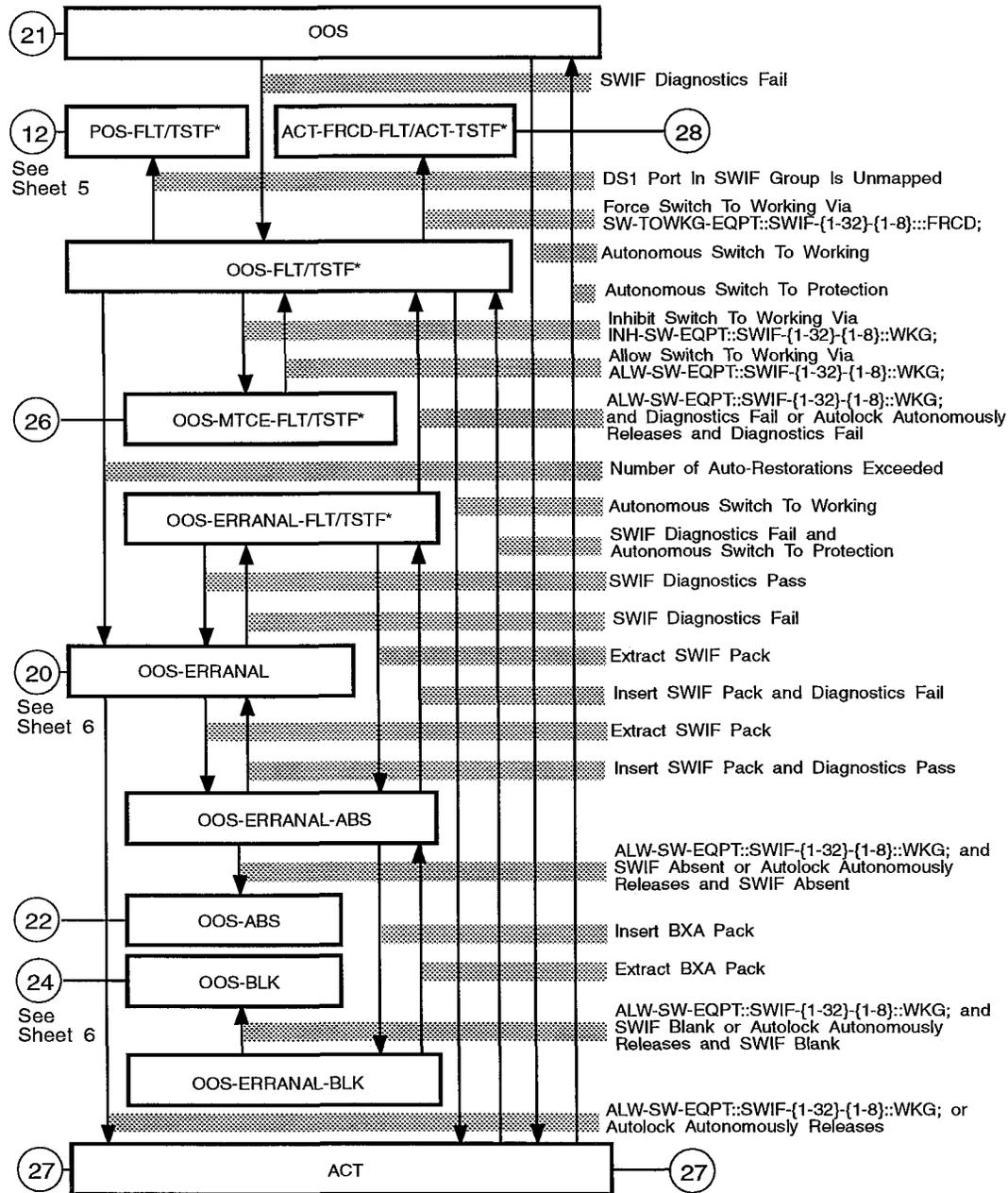


Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 6 of 11)



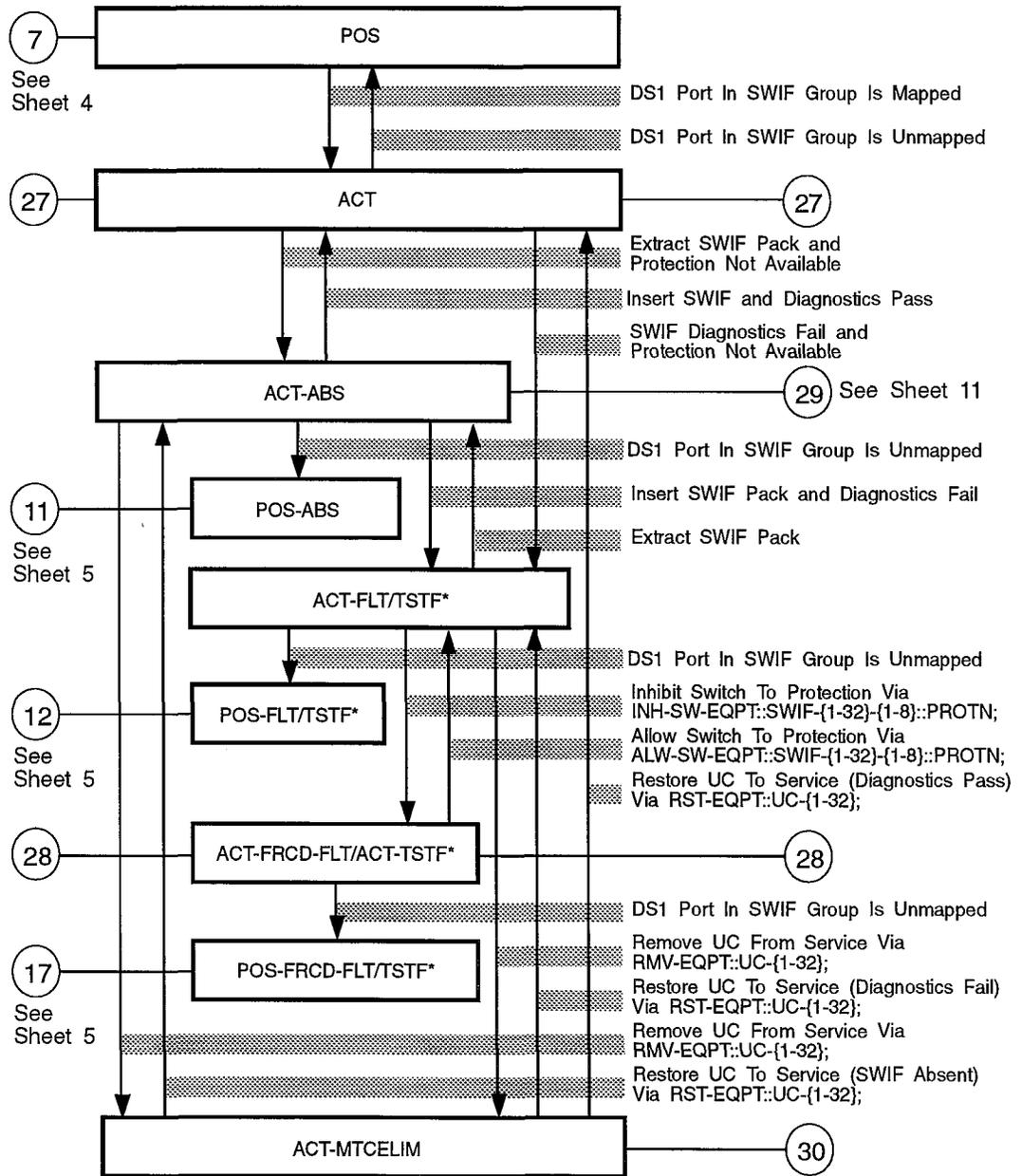
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 7 of 11)



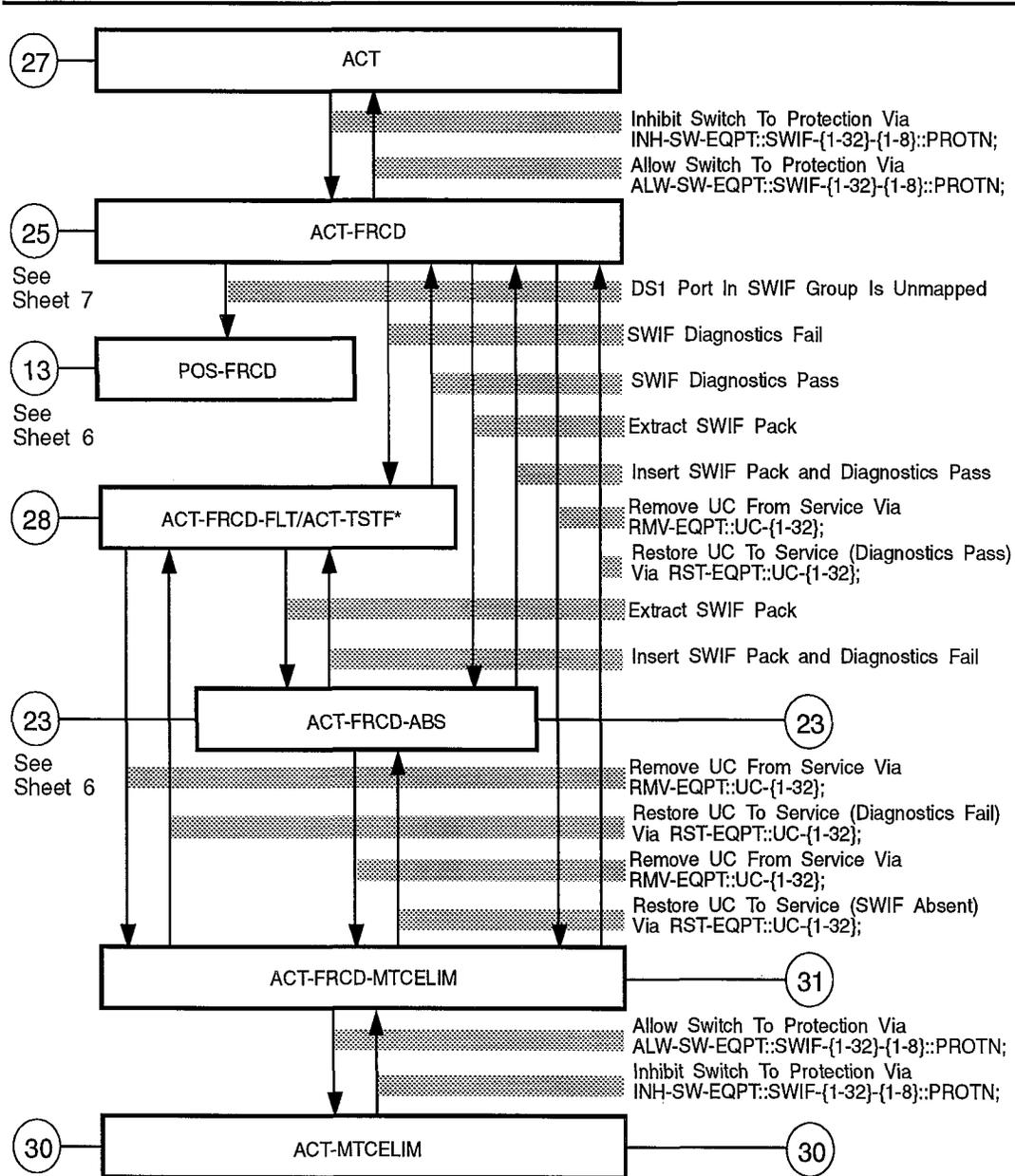
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 8 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 9 of 11)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 10 of 11)

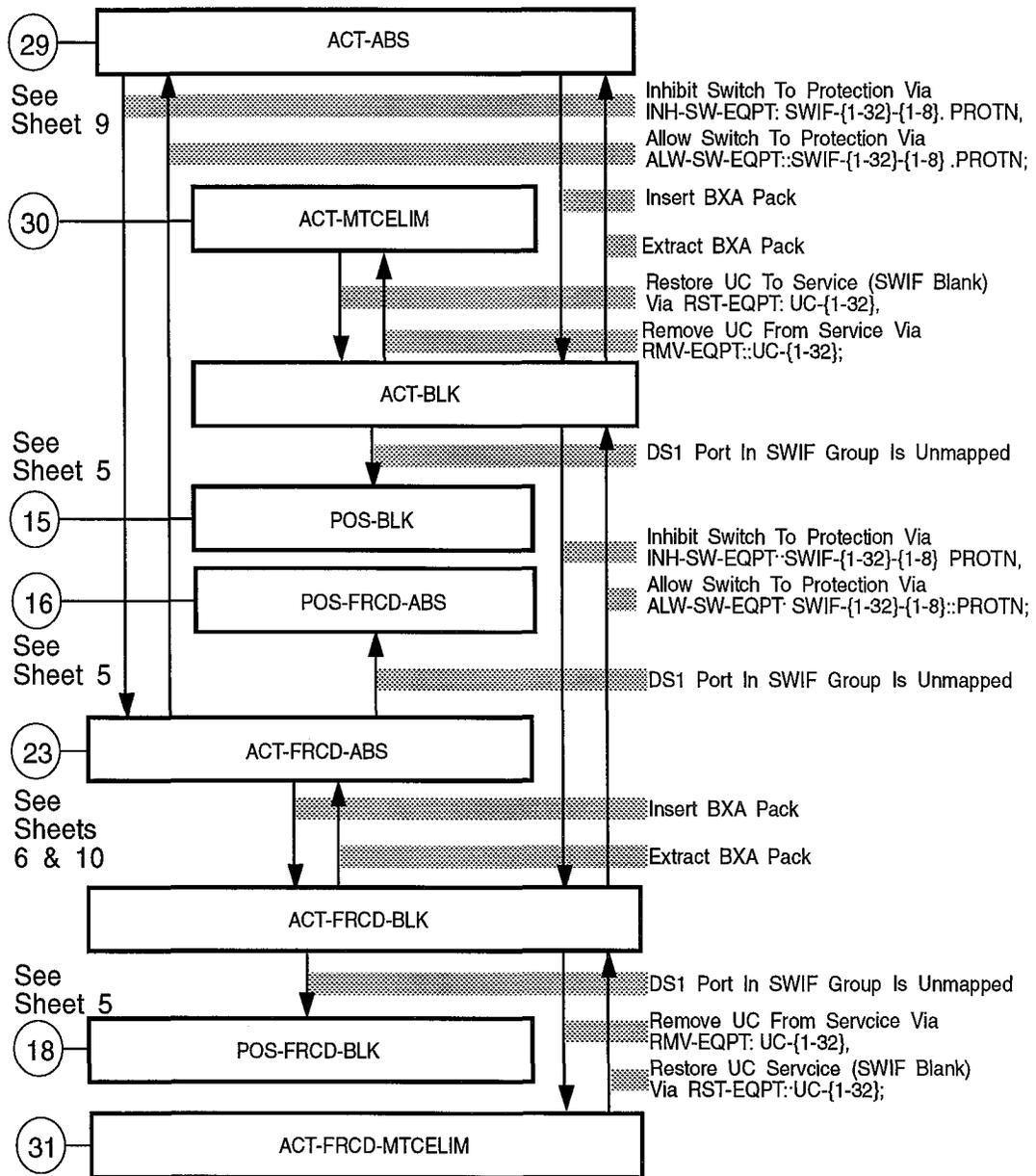
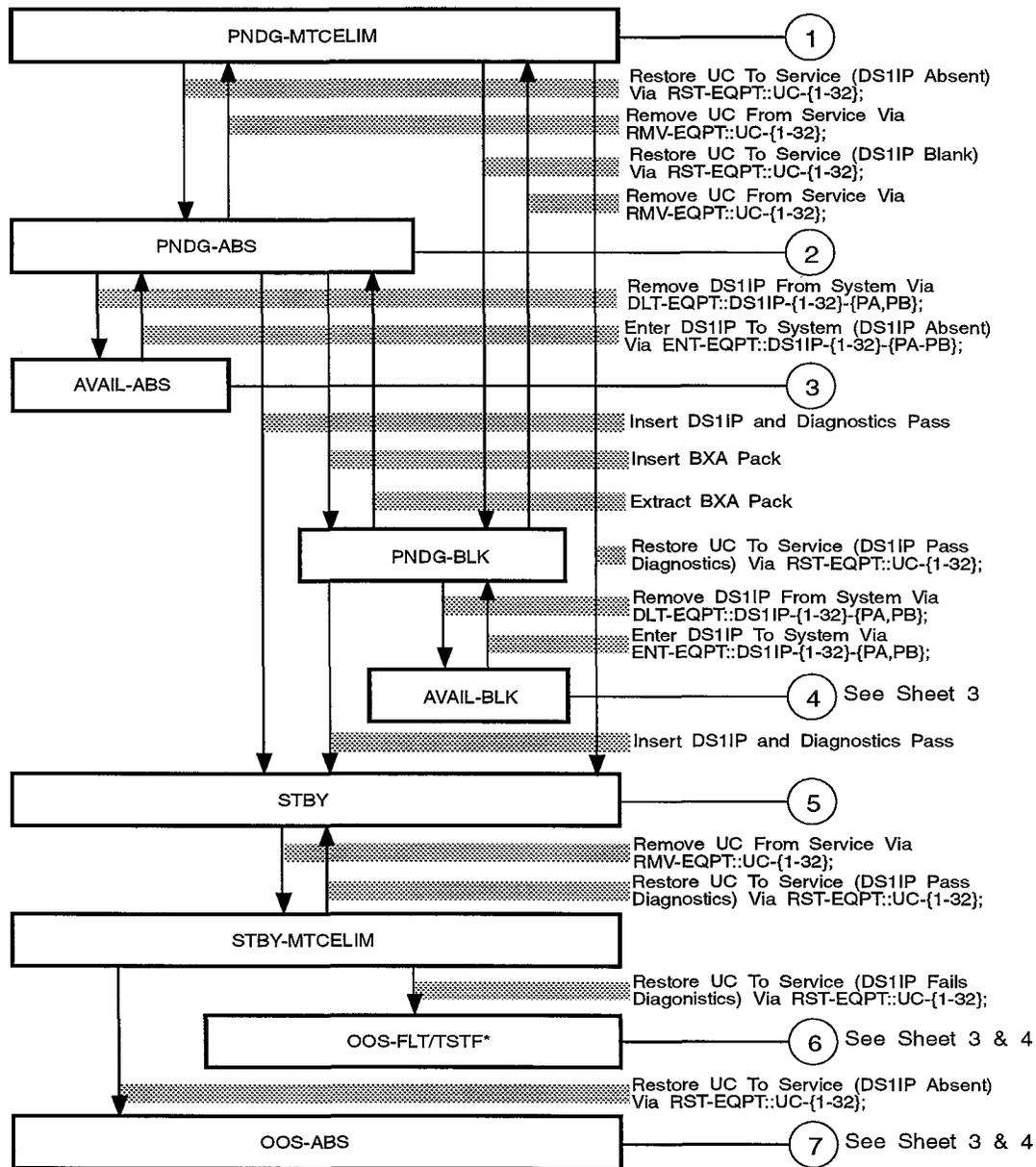


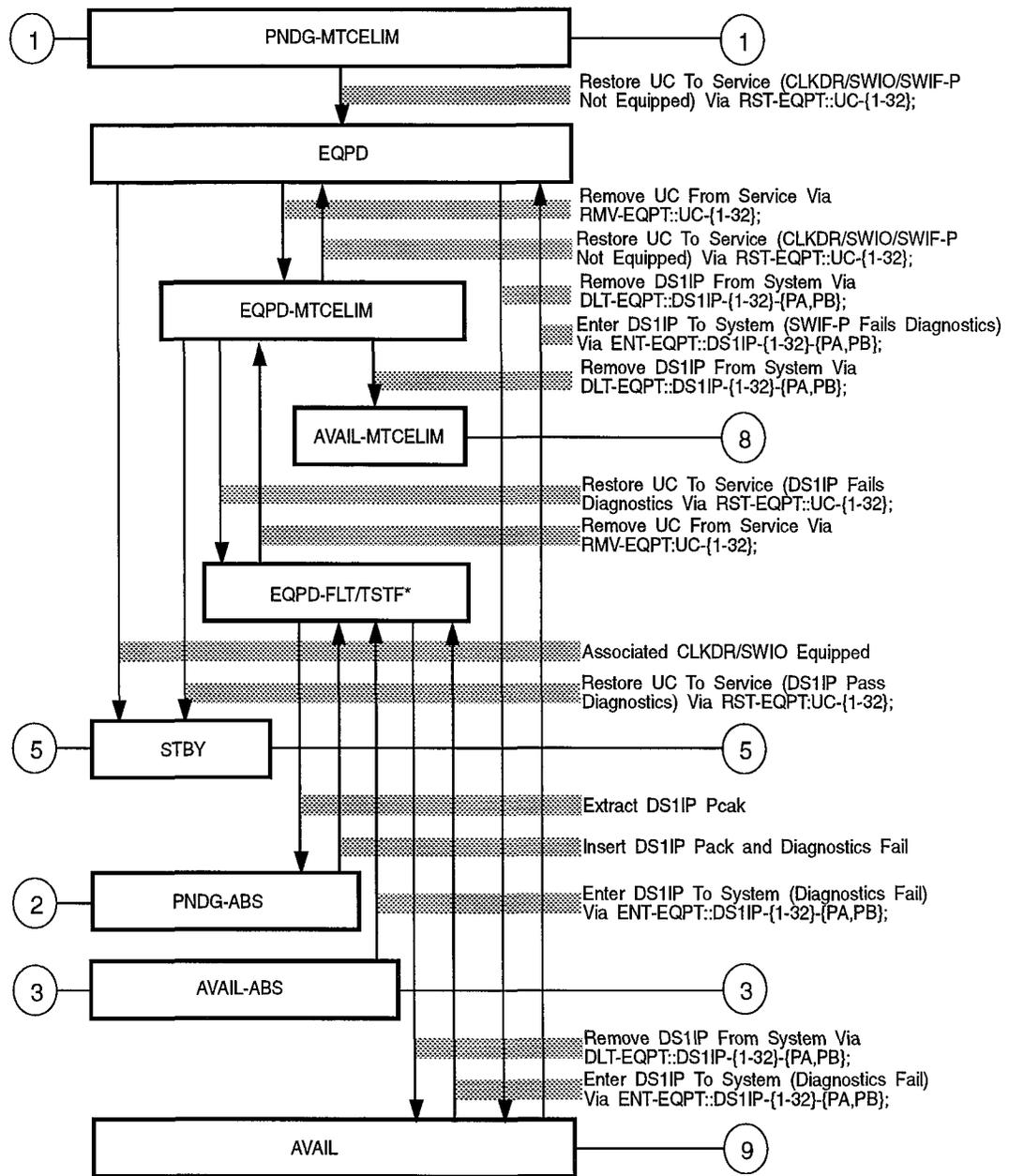
Figure J-21. Switch Interface (SWIF) State Transition Diagram (Sheet 11 of 11)

DS1 Interface-Protection (DS1IP)



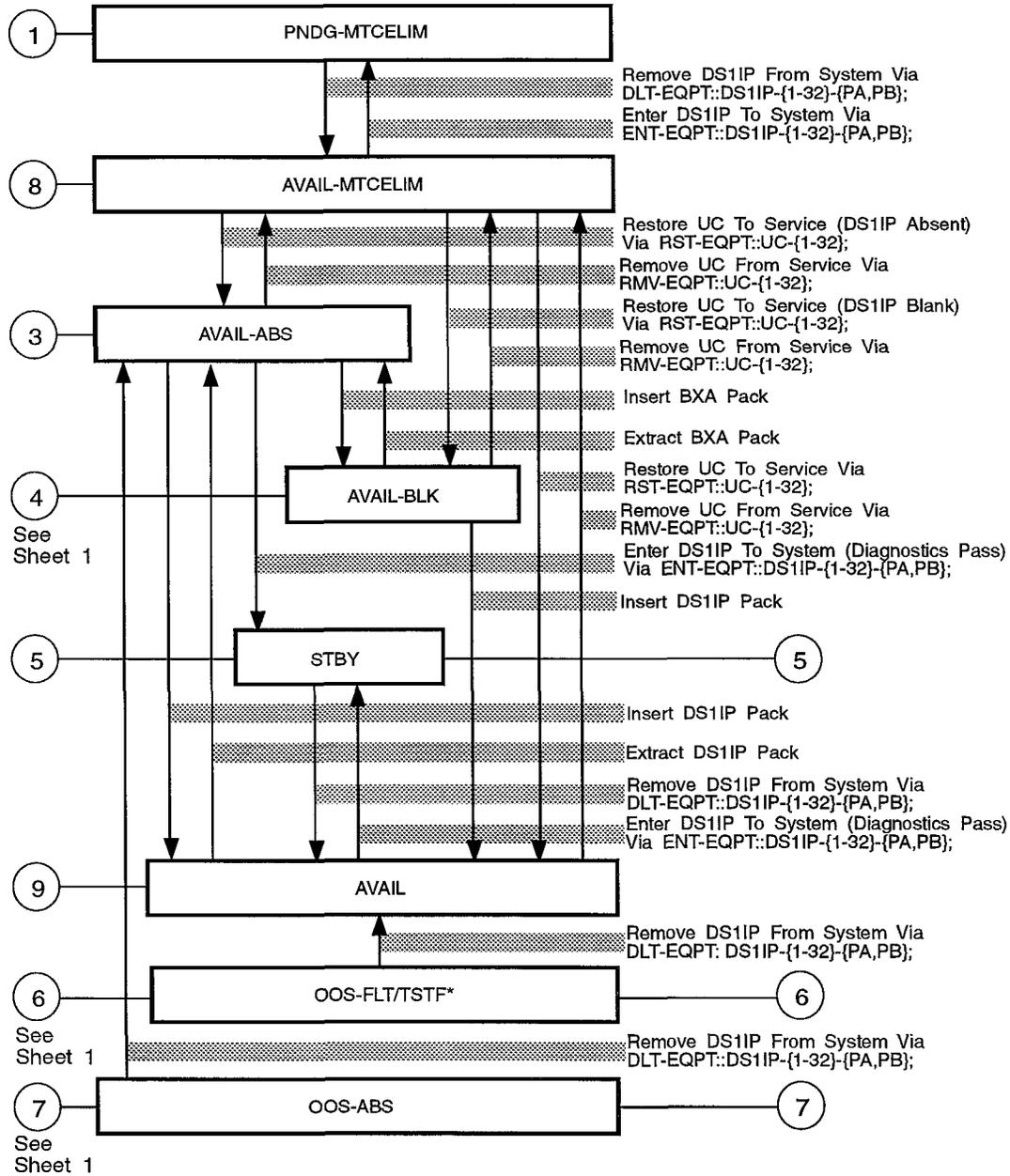
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-22. DS1 Interface-Protection (DS1IP) State Transition Diagram (Sheet 1 of 4)



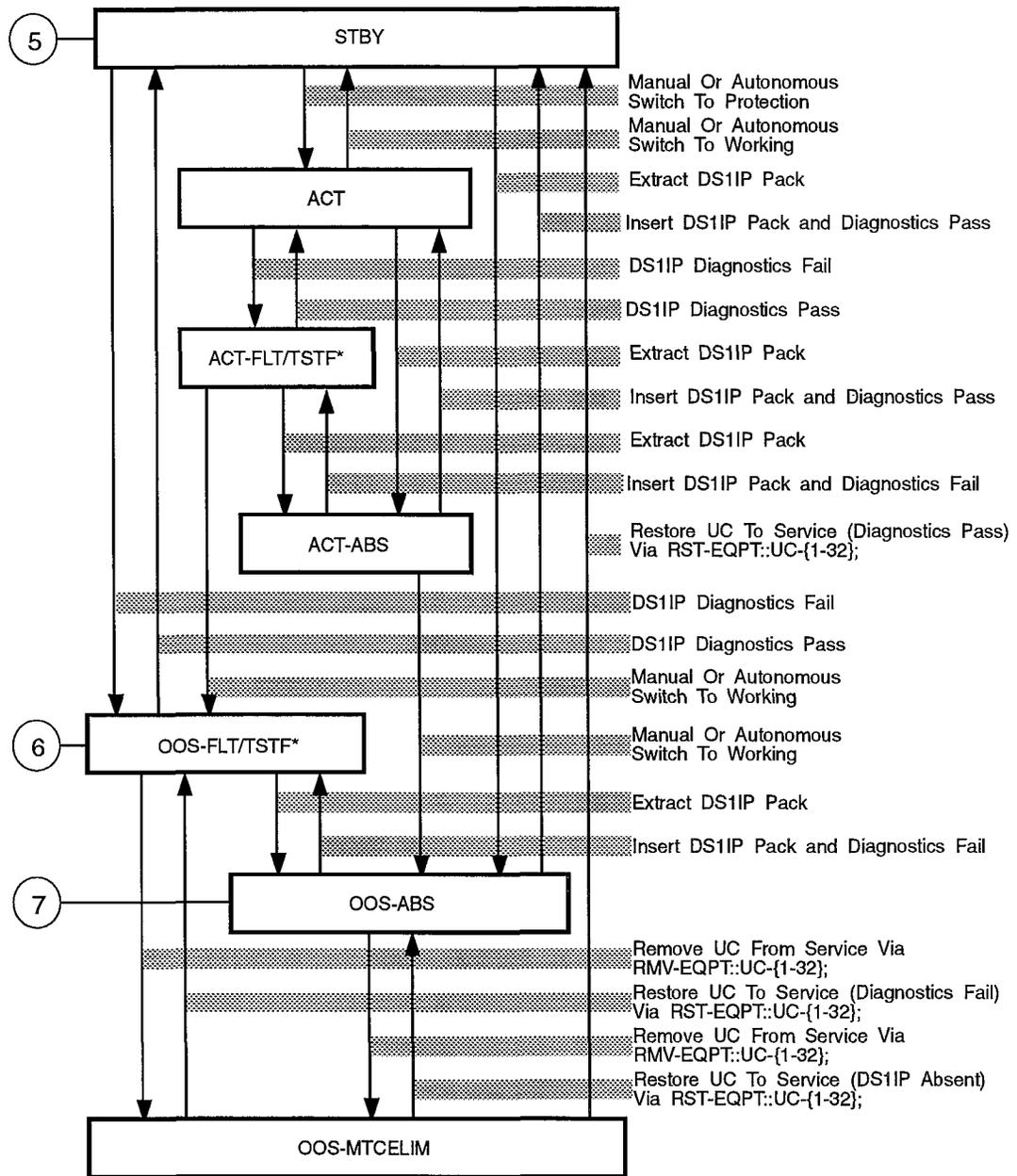
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-22. DS1 Interface-Protection (DS1IP) State Transition Diagram (Sheet 2 of 4)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

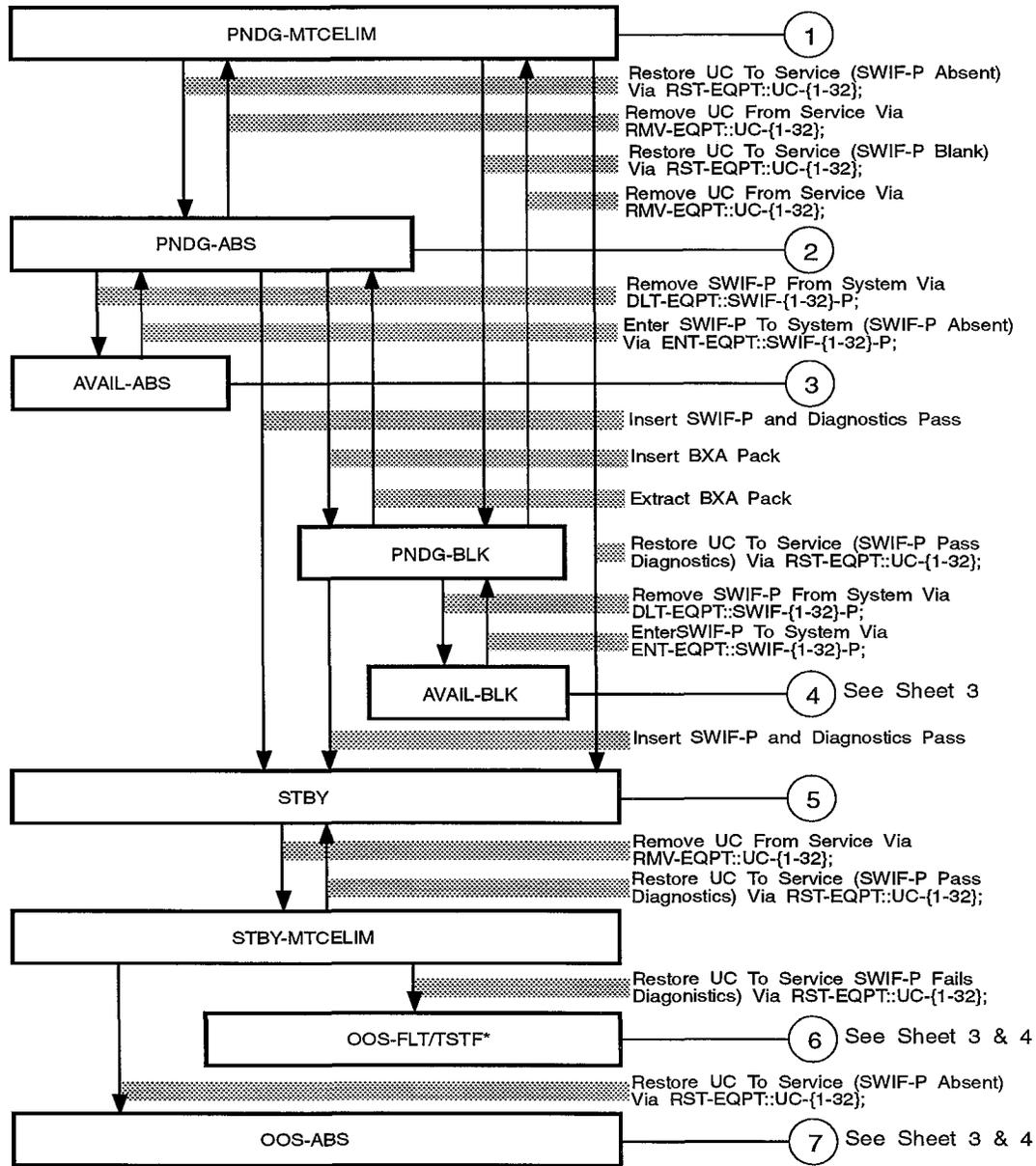
Figure J-22. DS1 Interface-Protection (DS1IP) State Transition Diagram (Sheet 3 of 4)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

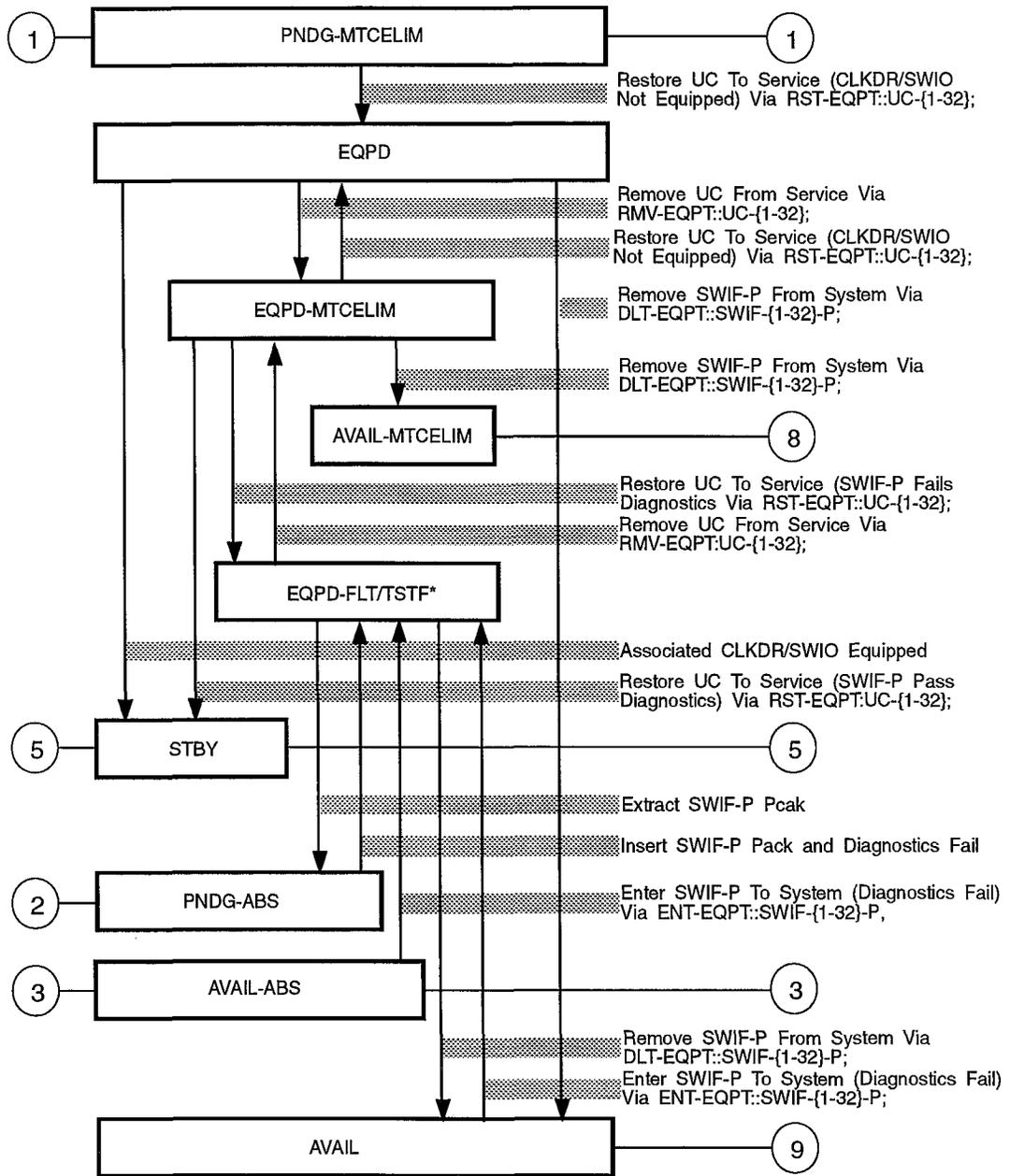
Figure J-22. DS1 Interface-Protection (DS1IP) State Transition Diagram (Sheet 4 of 4)

Switch Interface-Protection (SWIF-P)



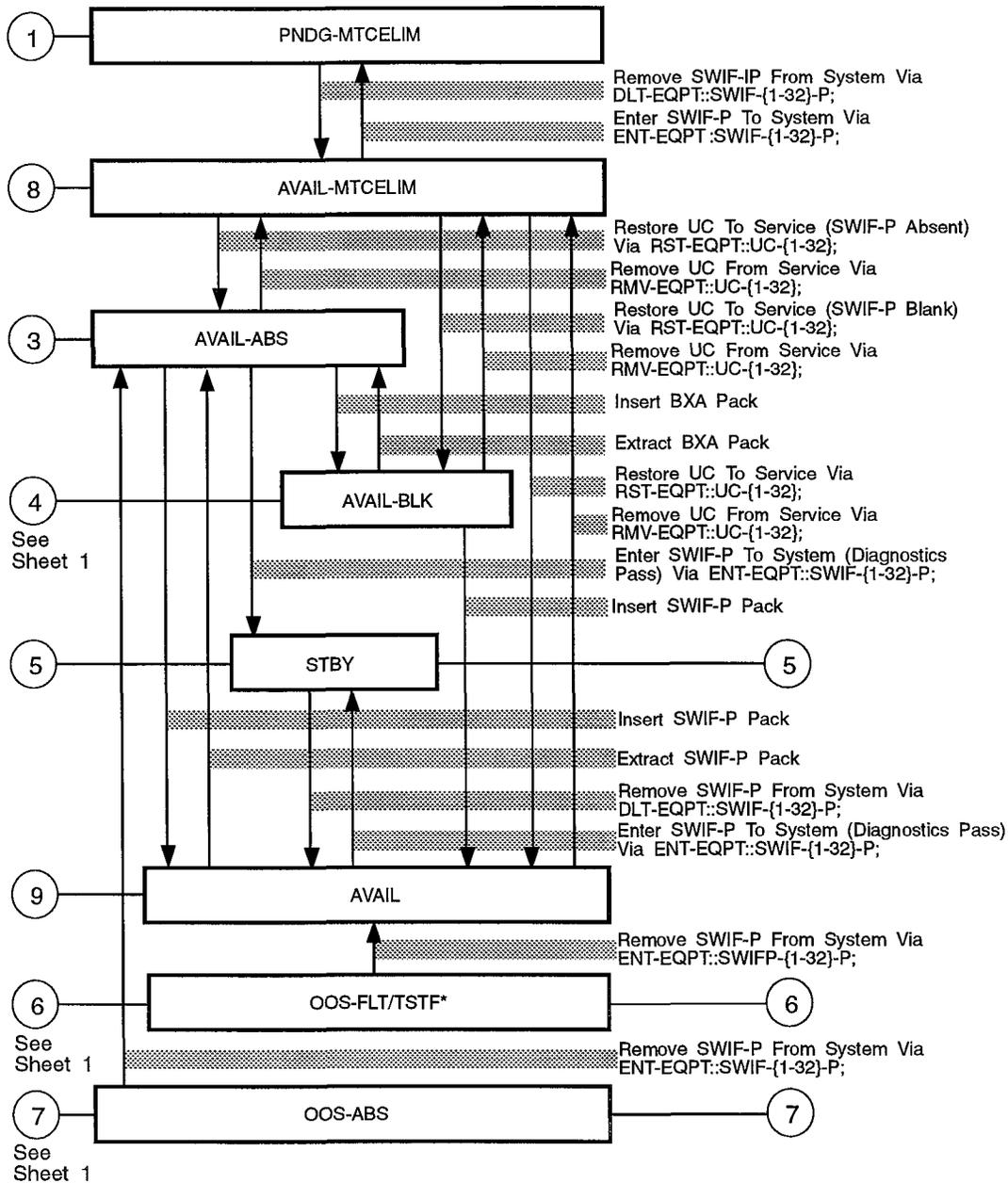
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-23. Switch Interface-Protection (SWIF-P) State Transition Diagram (Sheet 1 of 4)



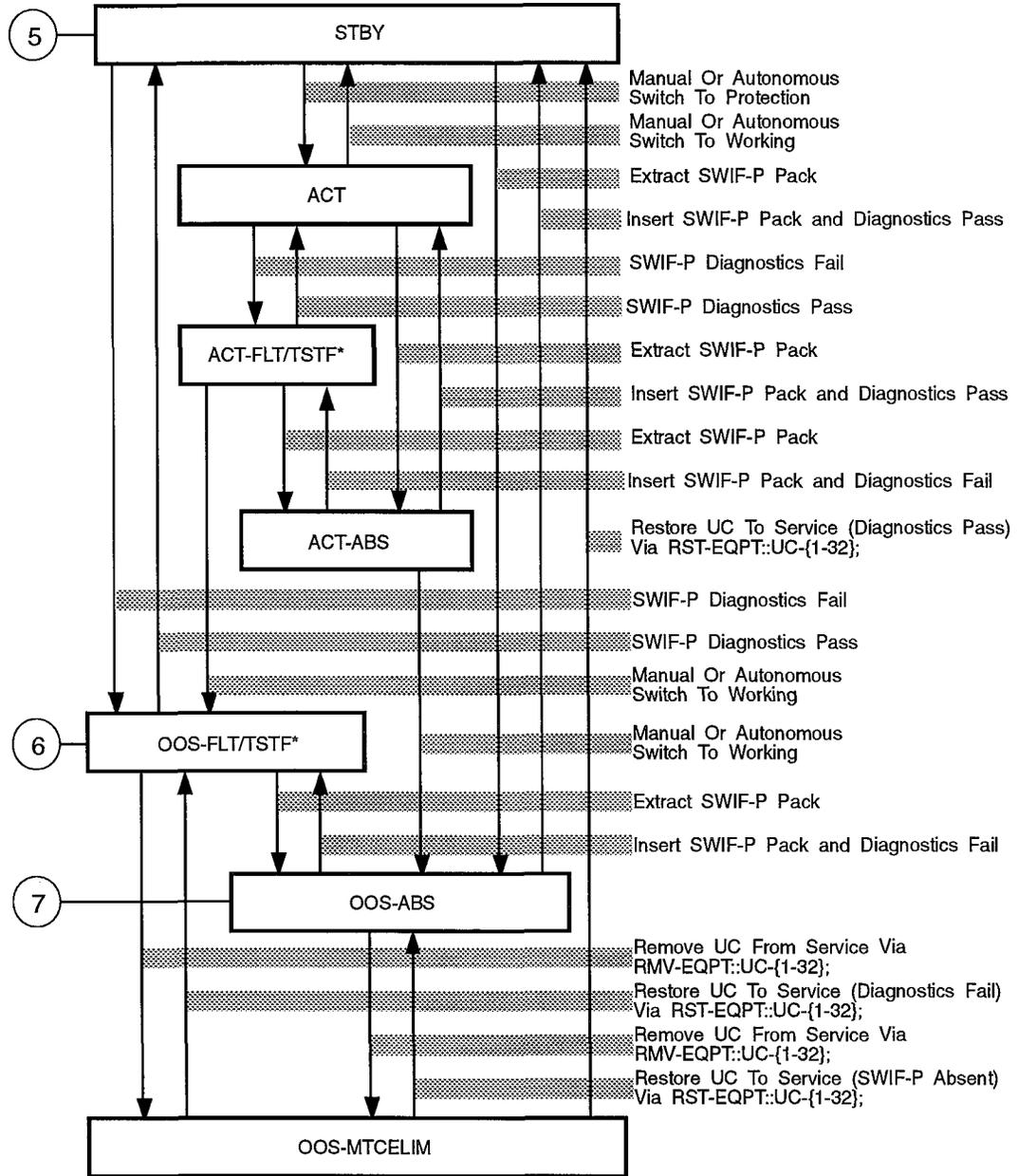
\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-23. Switch Interface-Protection (SWIF-P) State Transition Diagram (Sheet 2 of 4)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDT SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-23. Switch Interface-Protection (SWIF-P) State Transition Diagram (Sheet 3 of 4)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Figure J-23. Switch Interface-Protection (SWIF-P) State Transition Diagram (Sheet 4 of 4)



### Multiplexer Protection Switch (MUXPS)

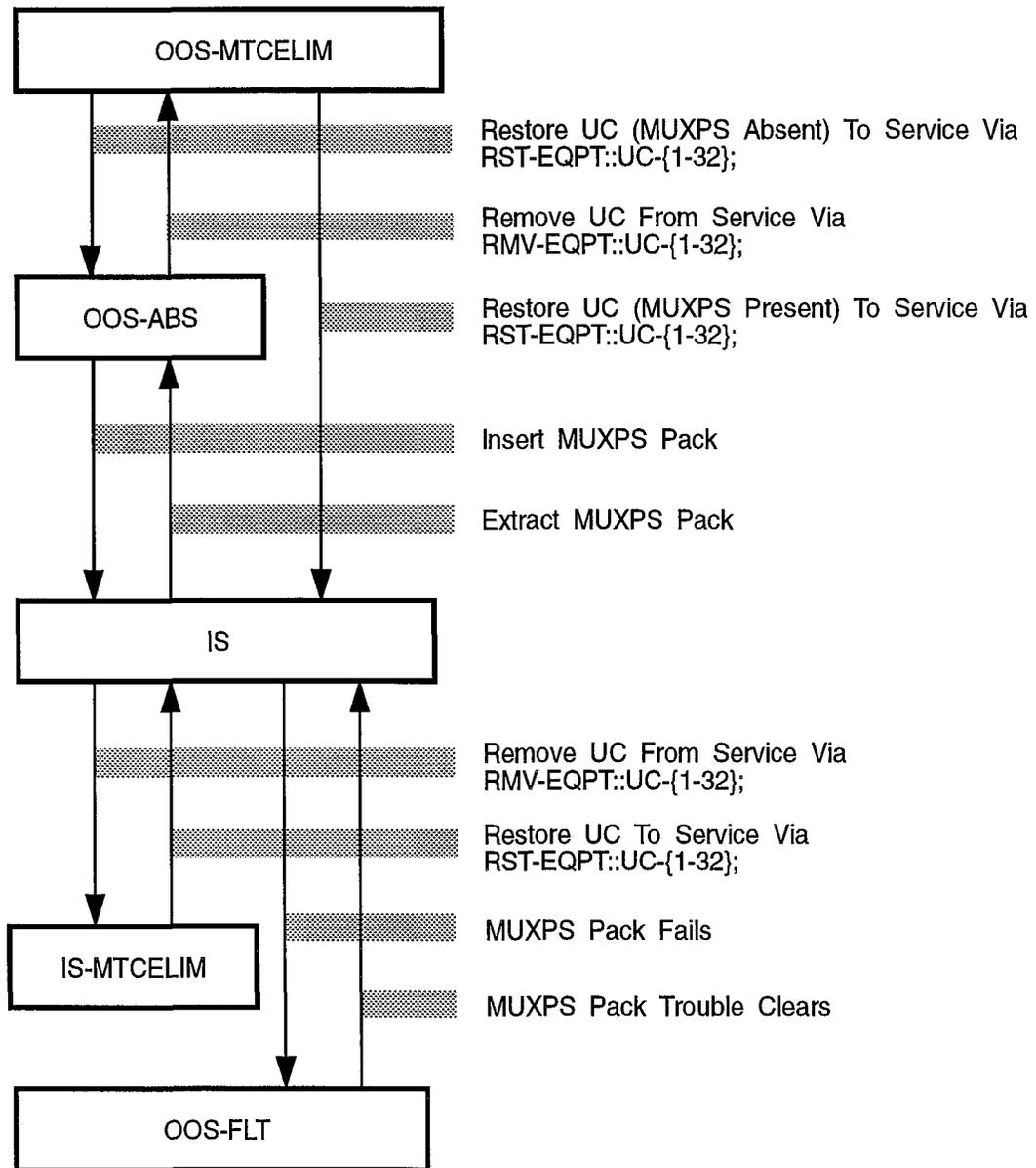
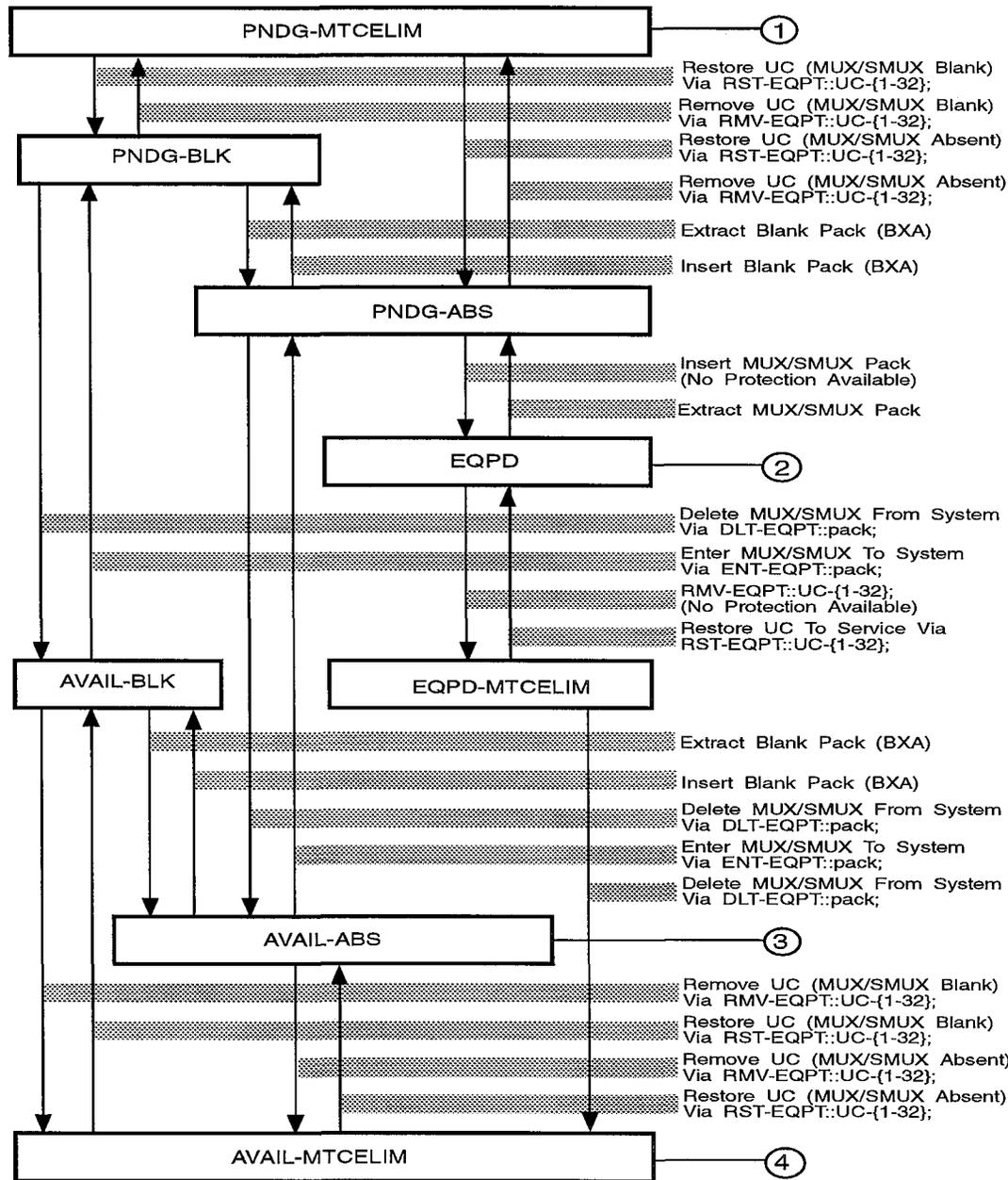


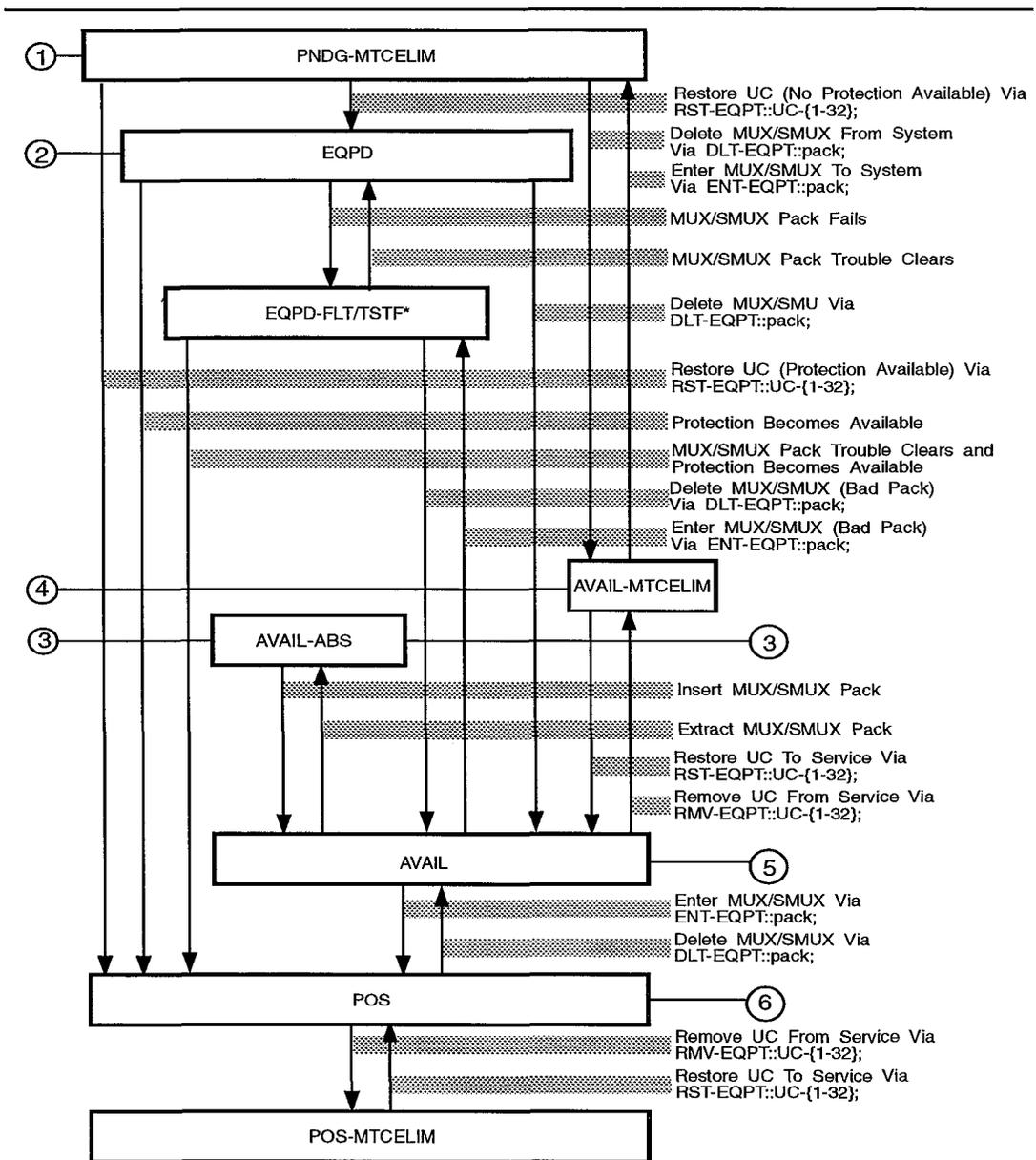
Figure J-24. Multiplexer Protection Switch (MUXPS) State Transition Diagram

**Multiplexer (MUX) and SONET Multiplexer (SMUX)**



Note: pack = MUX- {1-32} - {1-31} or SMUX- {1-32} - {1-15}

Figure J-25. Multiplexer (MUX) and SONET Multiplexer (SMUX) State Transition Diagram (Sheet 1 of 6)

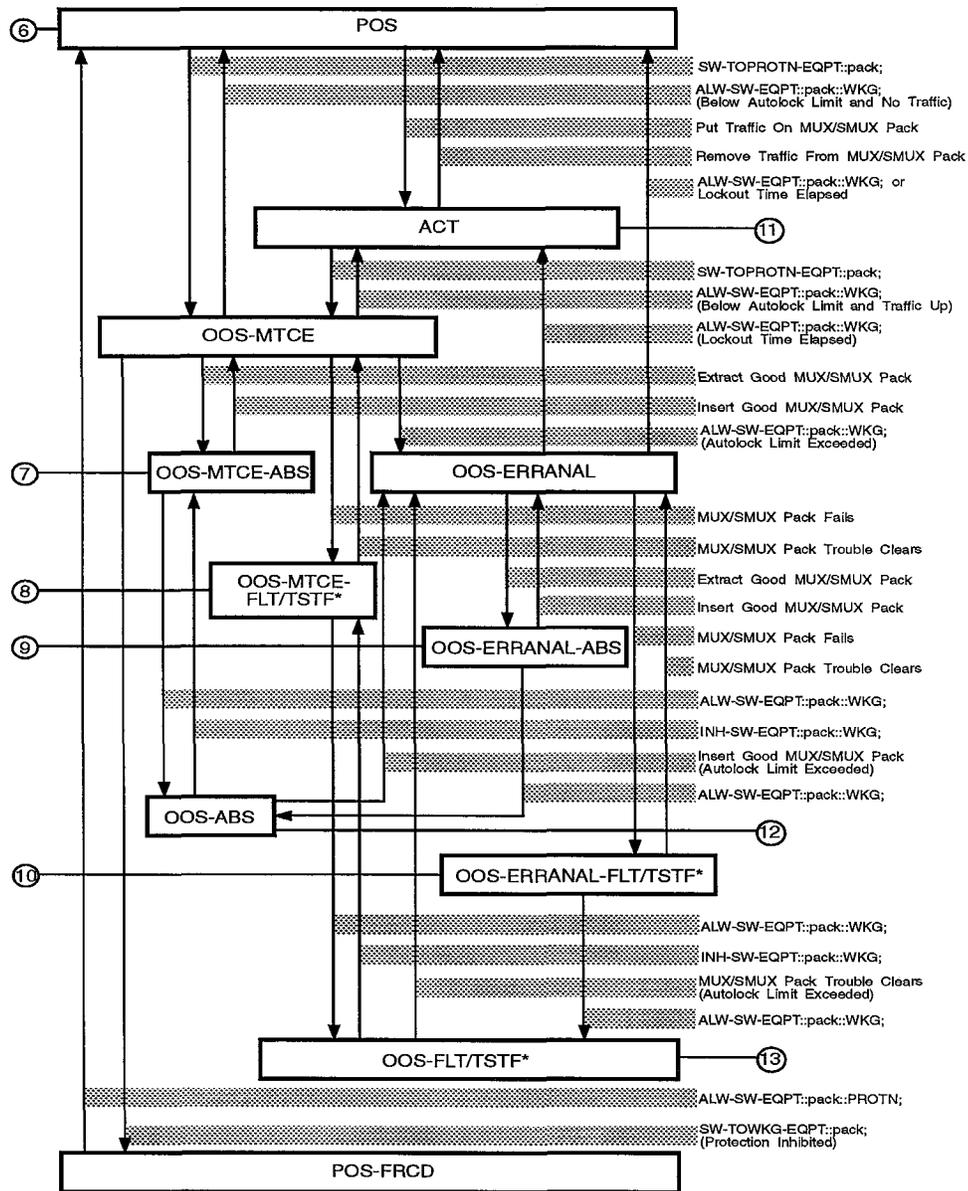


\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

**Note:** pack = MUX-{1-32}-{1-31} or SMUX-{1-32}-{1-15}

Figure J-25. Multiplexer (MUX) and SONET Multiplexer (SMUX) State Transition Diagram (Sheet 2 of 6)

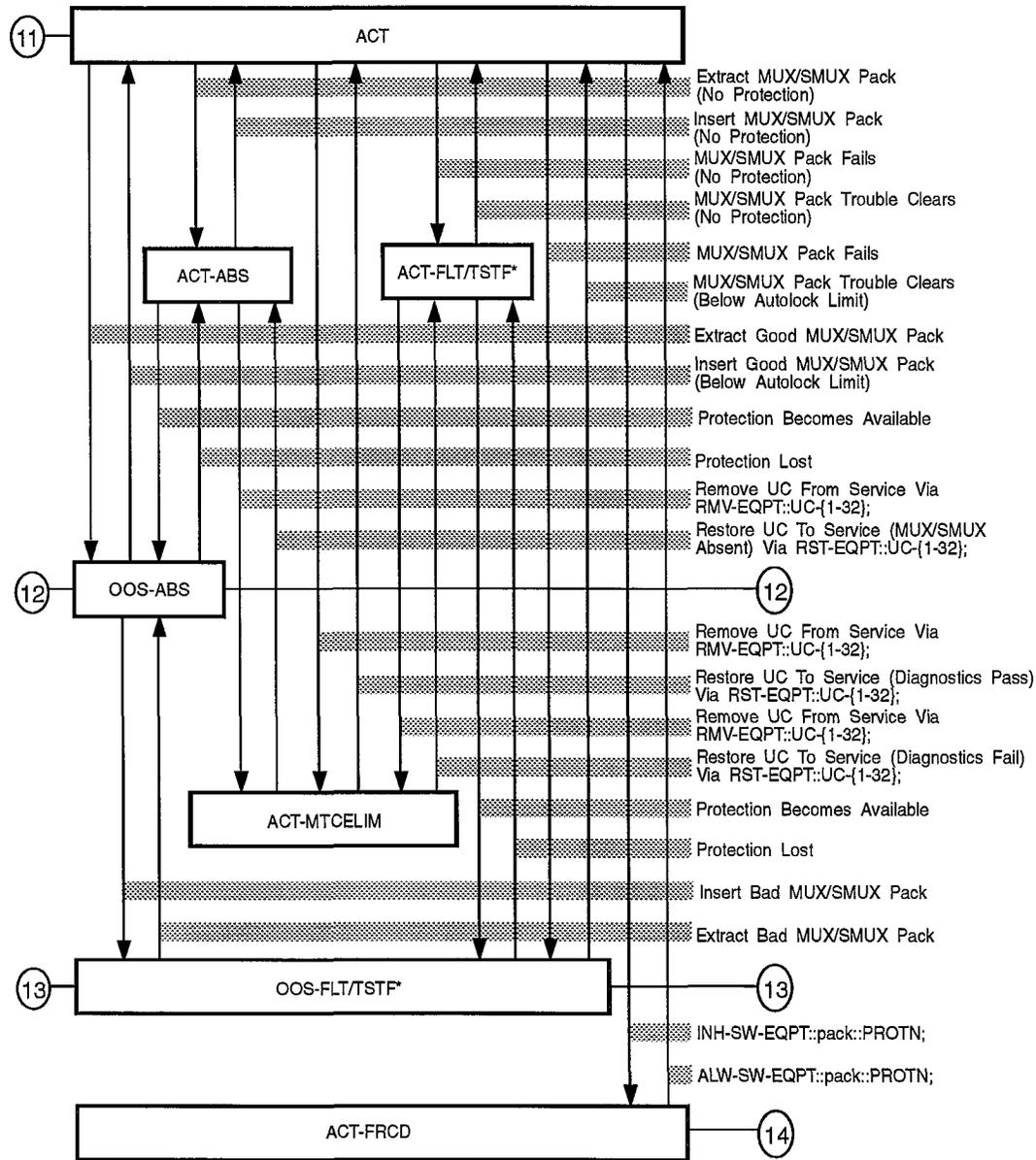




\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Note: pack = MUX- {1-32} - {1-31} or SMUX- {1-32} - {1-15}

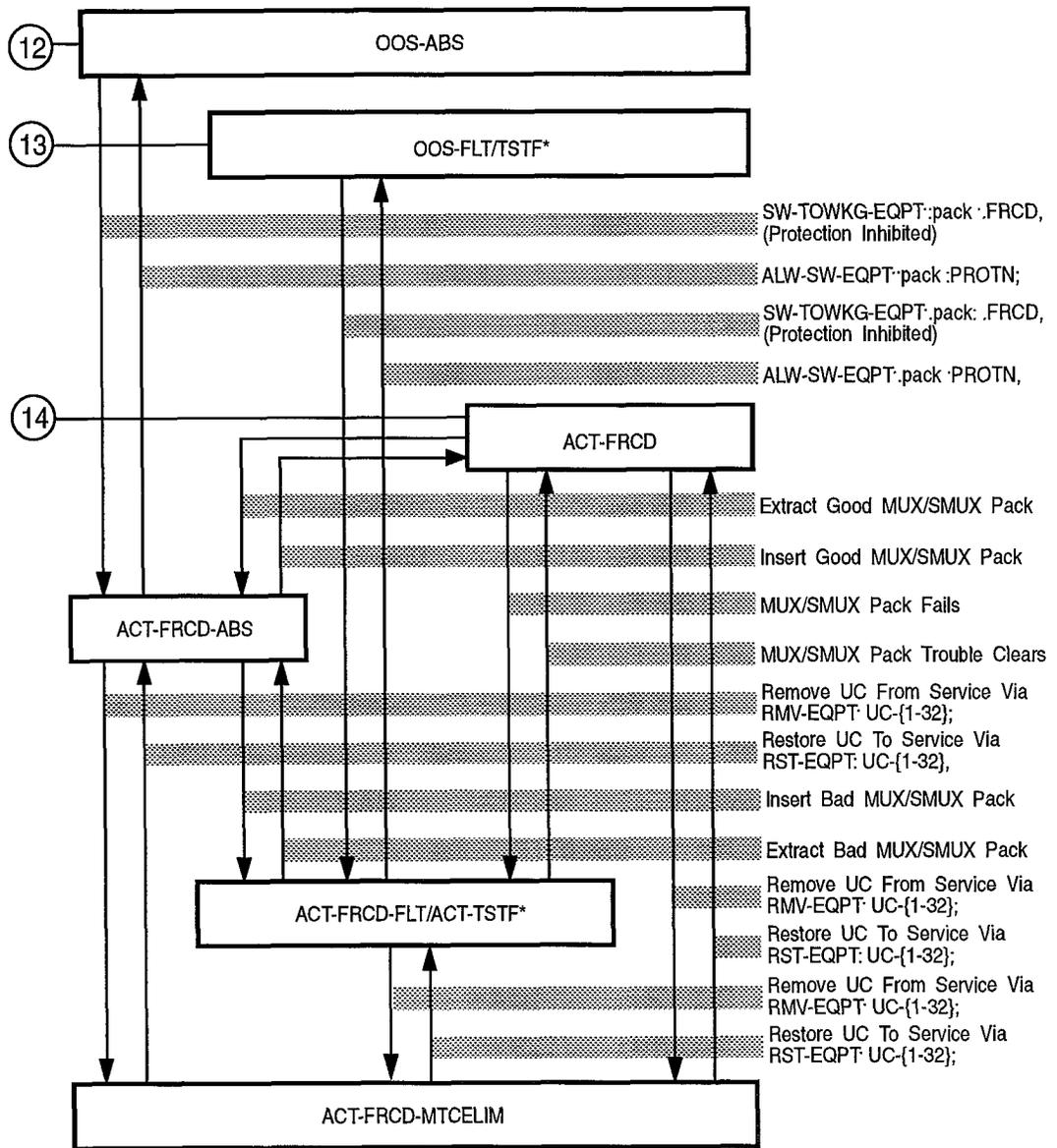
Figure J-25. Multiplexer (MUX) and SONET Multiplexer (SMUX) State Transition Diagram (Sheet 4 of 6)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

**Note:** pack = MUX- {1-32} - {1-31} or SMUX- {1-32} - {1-15}

Figure J-25. Multiplexer (MUX) and SONET Multiplexer (SMUX) State Transition Diagram (Sheet 5 of 6)

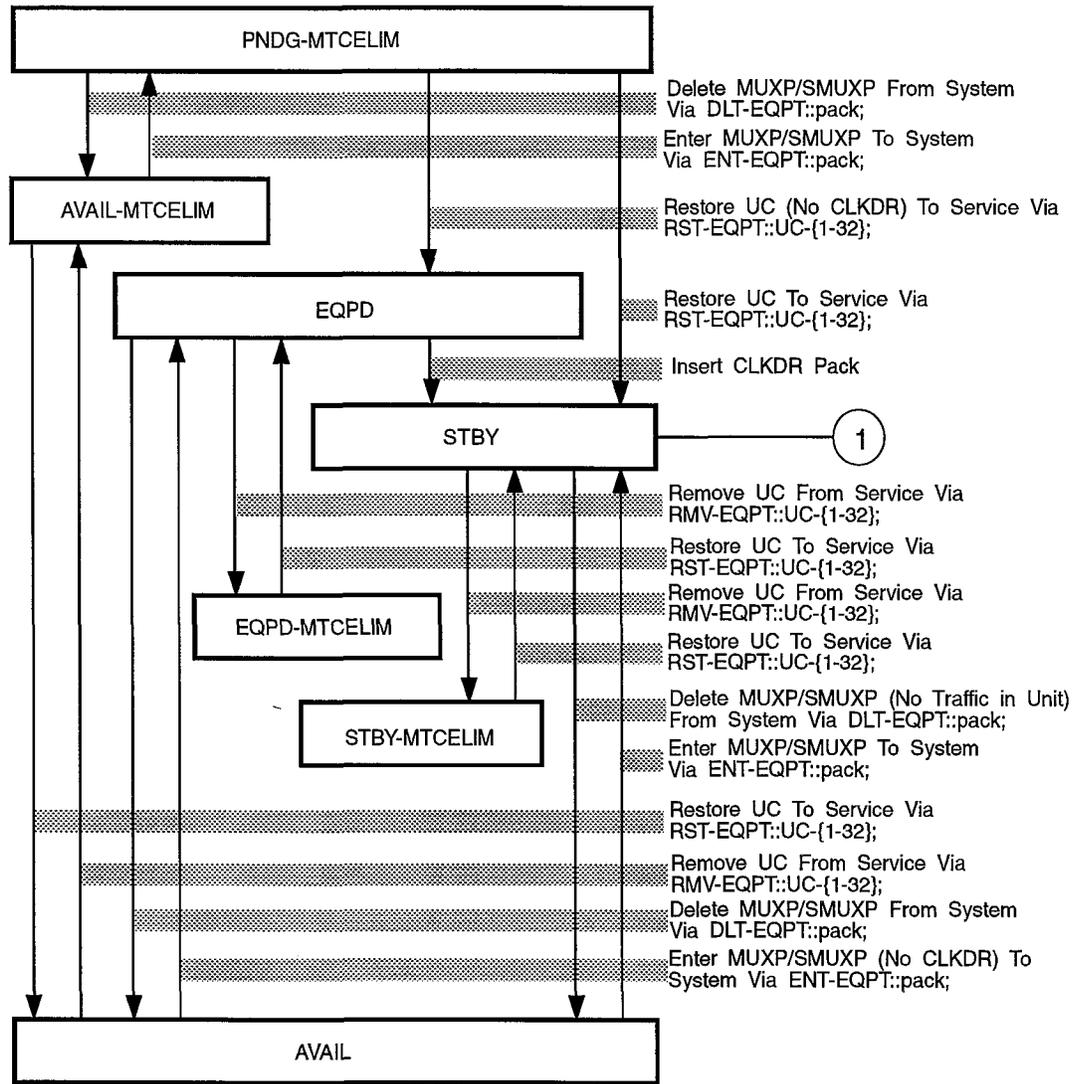


\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

Note: pack = MUX-{1-32}-{1-31} or SMUX-{1-32}-{1-15}

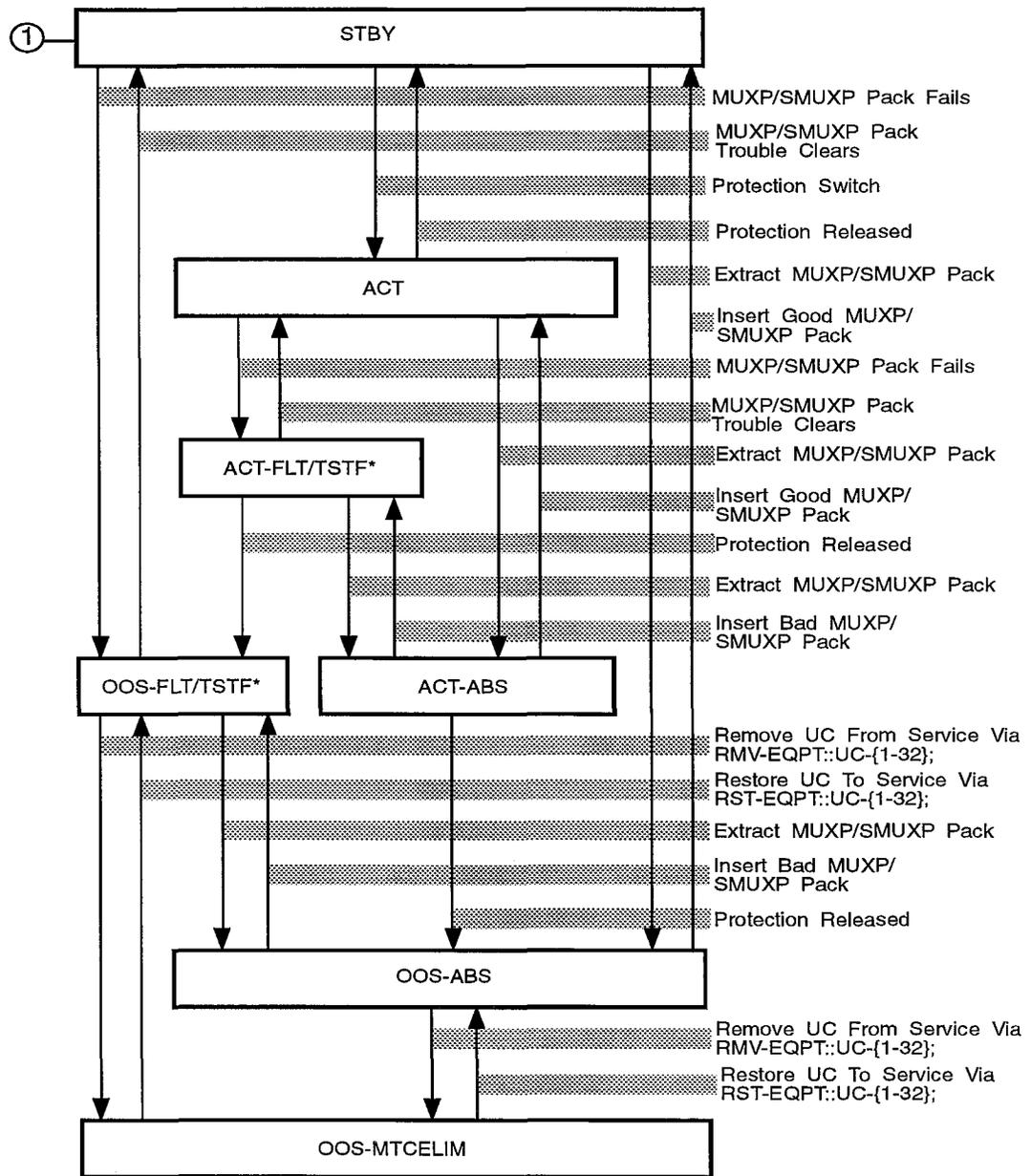
Figure J-25. Multiplexer (MUX) and SONET Multiplexer (SMUX) State Transition Diagram (Sheet 6 of 6)

**Multiplexer Protection (MUXP) and SONET Multiplexer Protection (SMUXP)**



**Note:** pack = MUXP-{1-32} or SMUXP-{1-32}

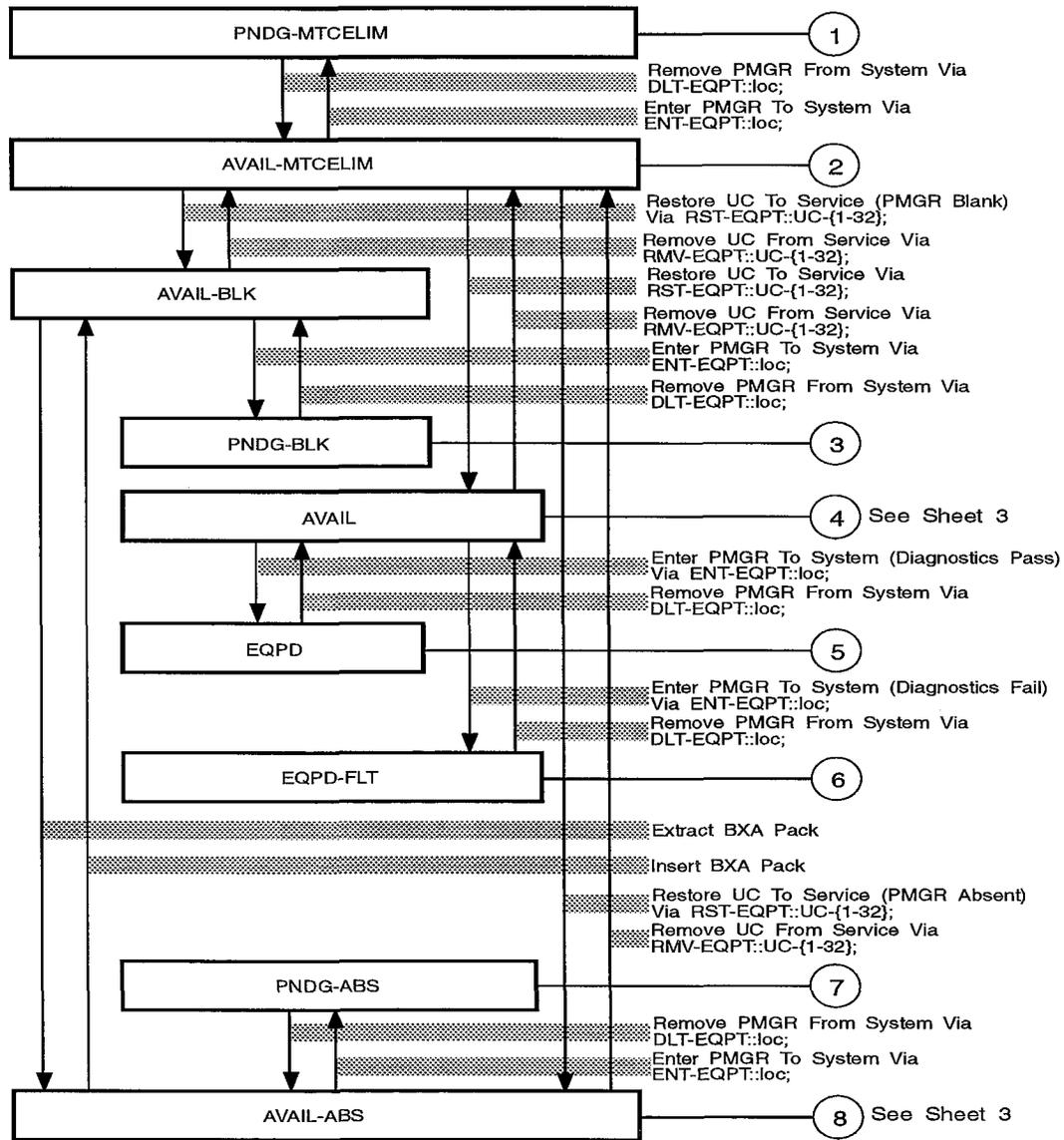
Figure J-26. Multiplexer Protection (MUXP) and SONET Multiplexer Protection (SMUXP) State Transition Diagram (Sheet 1 of 2)



\* The FLT state (alarm occurs) is entered when diagnostics fail and error recovery detects the failure. The TSTF state (REPT DGNDET SYS message only) is entered when diagnostics fail and error recovery can not detect the failure (for example, fault interrupt failure). Autonomous protection switching can occur when fault recovery detects failures (FLT state).

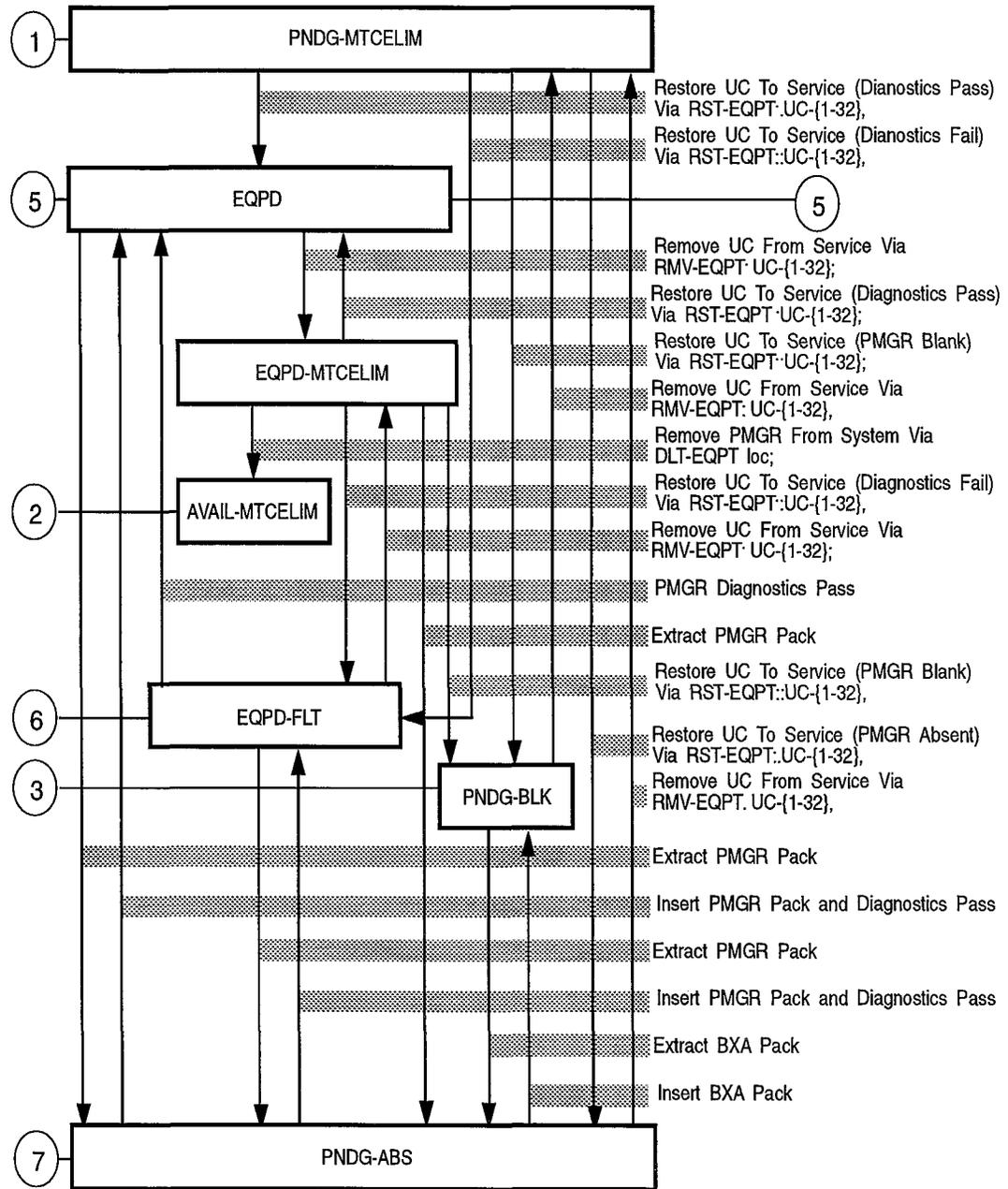
Figure J-26. Multiplexer Protection (MUXP) and SONET Multiplexer Protection (SMUXP) State Transition Diagram (Sheet 2 of 2)

**Performance Monitor Generator/Receiver (PMGR)**



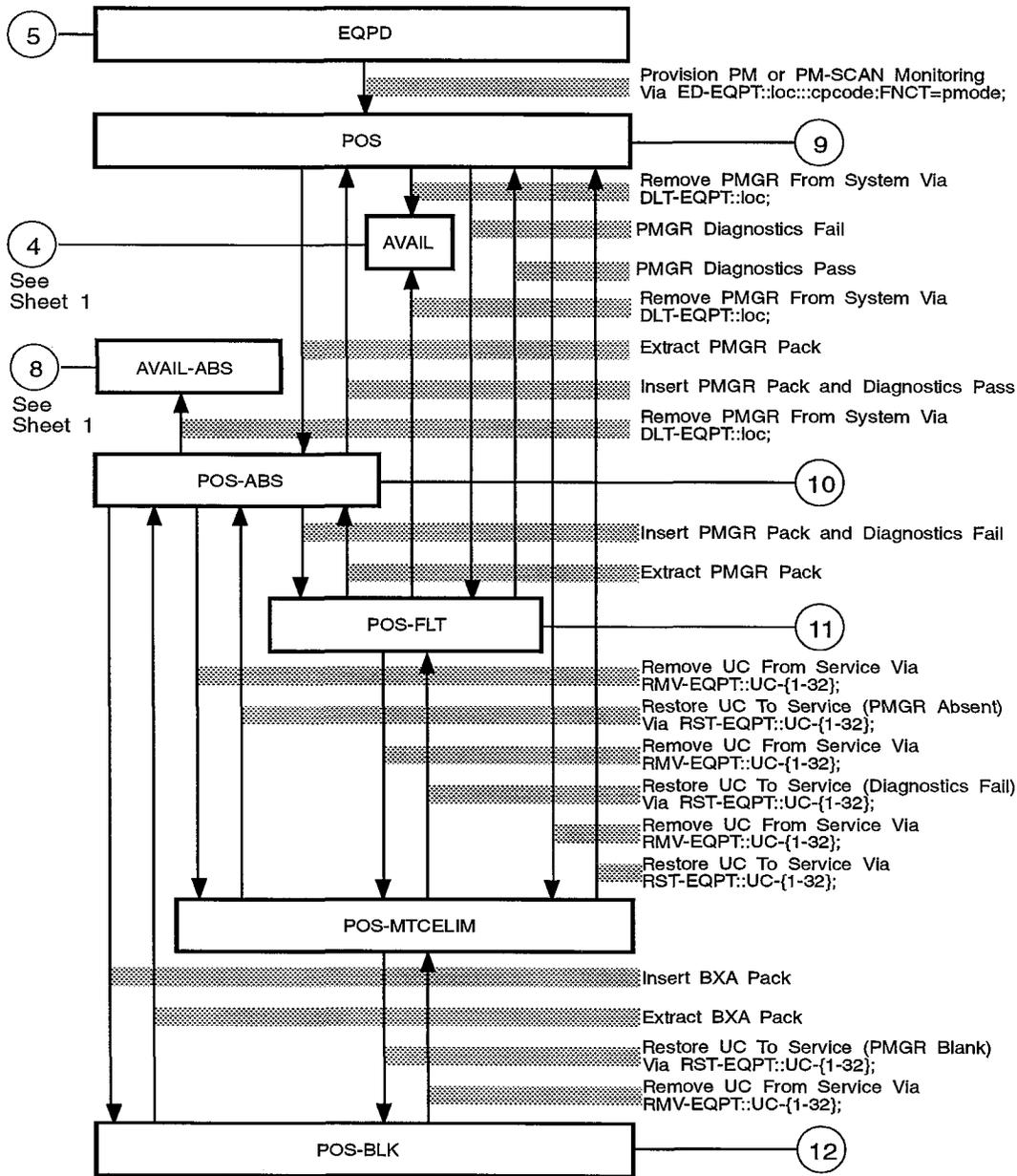
Note: loc = Circuit pack location: { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }

Figure J-27. Performance Monitor Generator/Receiver (PMGR) State Transition Diagram (Sheet 1 of 4)



Note: loc = Circuit pack location: { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }

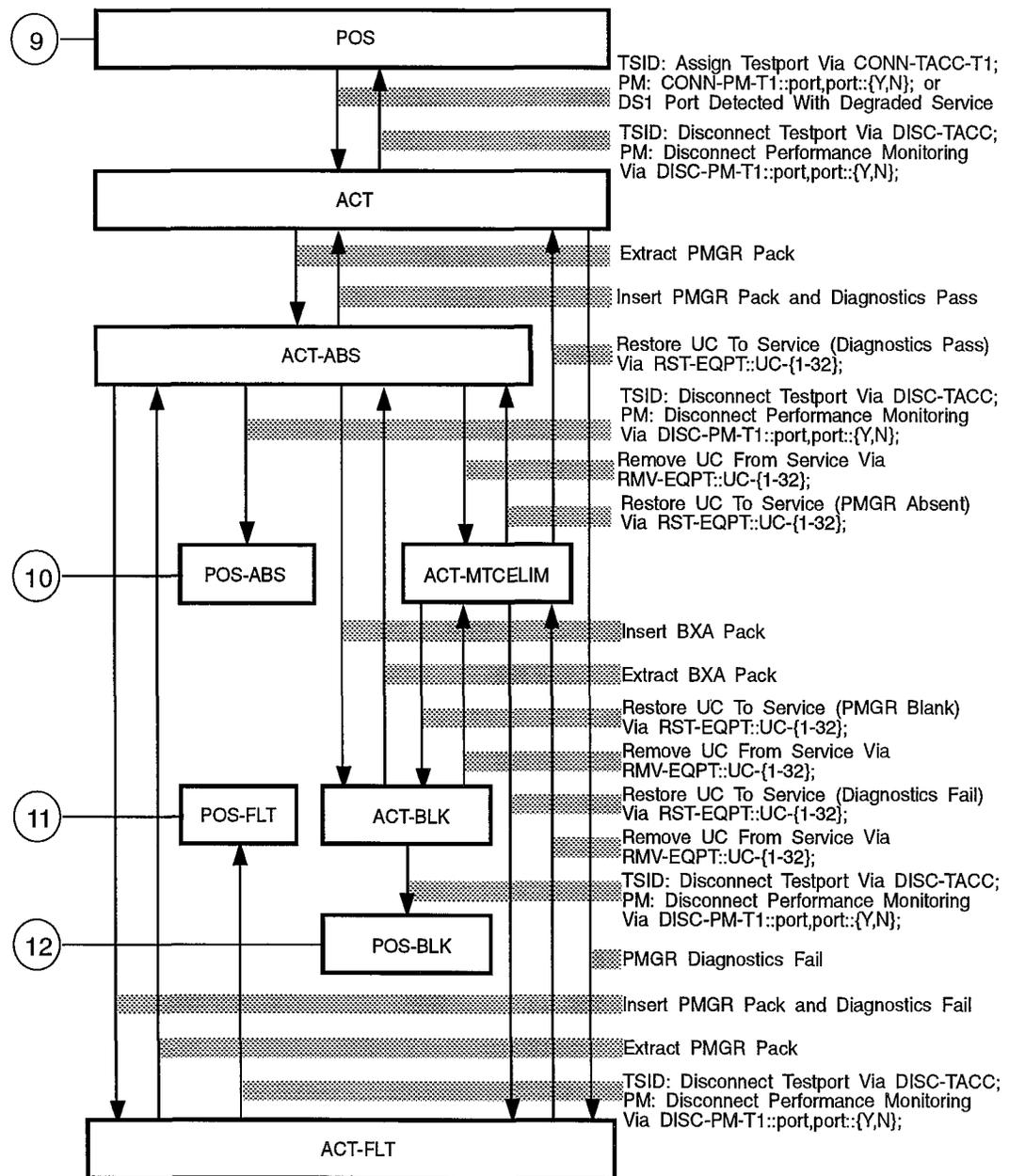
Figure J-27. Performance Monitor Generator/Receiver (PMGR) State Transition Diagram  
 (Sheet 2 of 4)



**Note:**

loc = Circuit pack location: { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }  
 cpcode = Circuit pack code number: **AKM66** (PMGR1)  
 pmode = Performance monitoring mode: **PM** (camp-on) or **PM-SCAN** (scan)

Figure J-27. Performance Monitor Generator/Receiver (PMGR) State Transition Diagram (Sheet 3 of 4)



**Note:**  
 loc = Circuit pack location: { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }  
 port = DS1 port location: {1-32}-{1-31}-{1-28}

Figure J-27. Performance Monitor Generator/Receiver (PMGR) State Transition Diagram  
 (Sheet 4 of 4)

DS3 Performance Monitor (DS3PM)

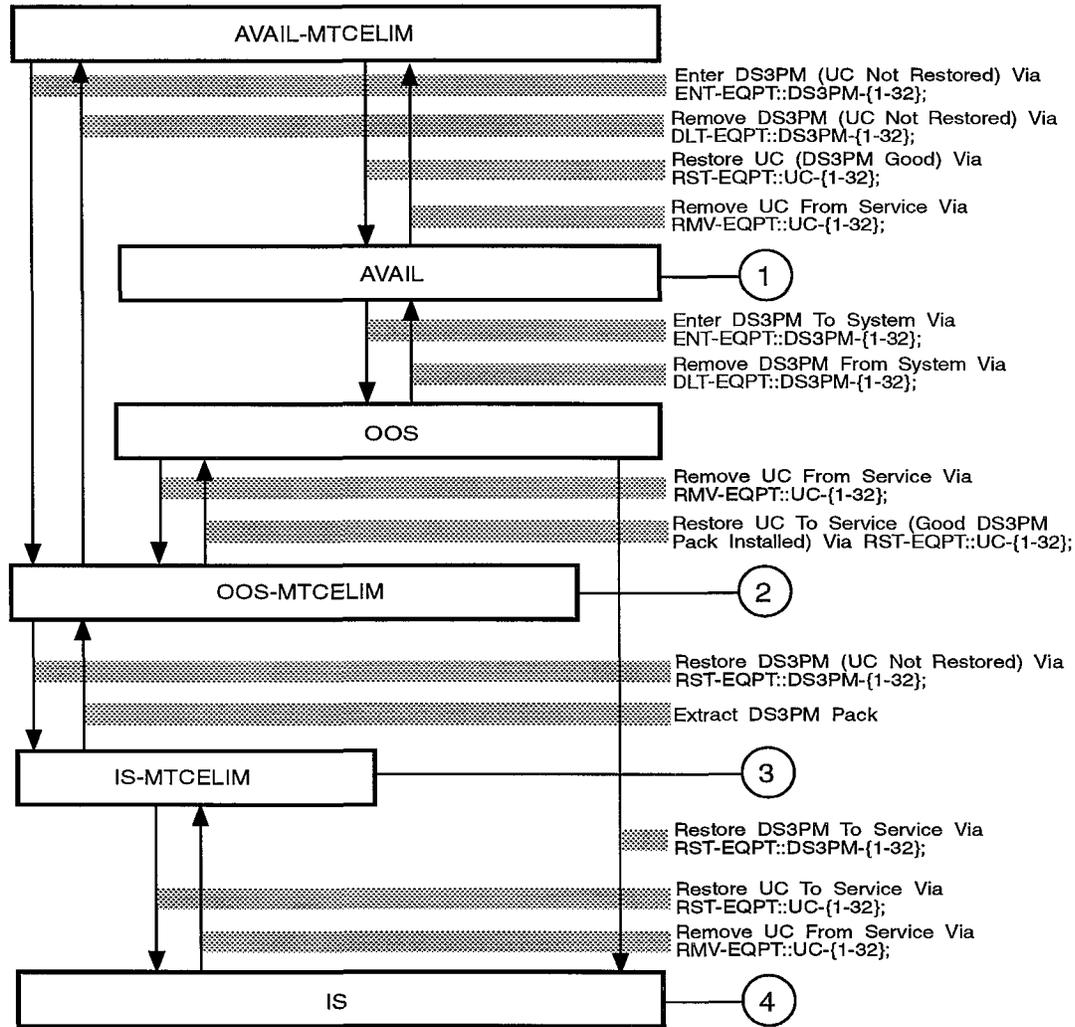


Figure J-28. DS3 Performance Monitor (DS3PM) State Transition Diagram (Sheet 1 of 2)

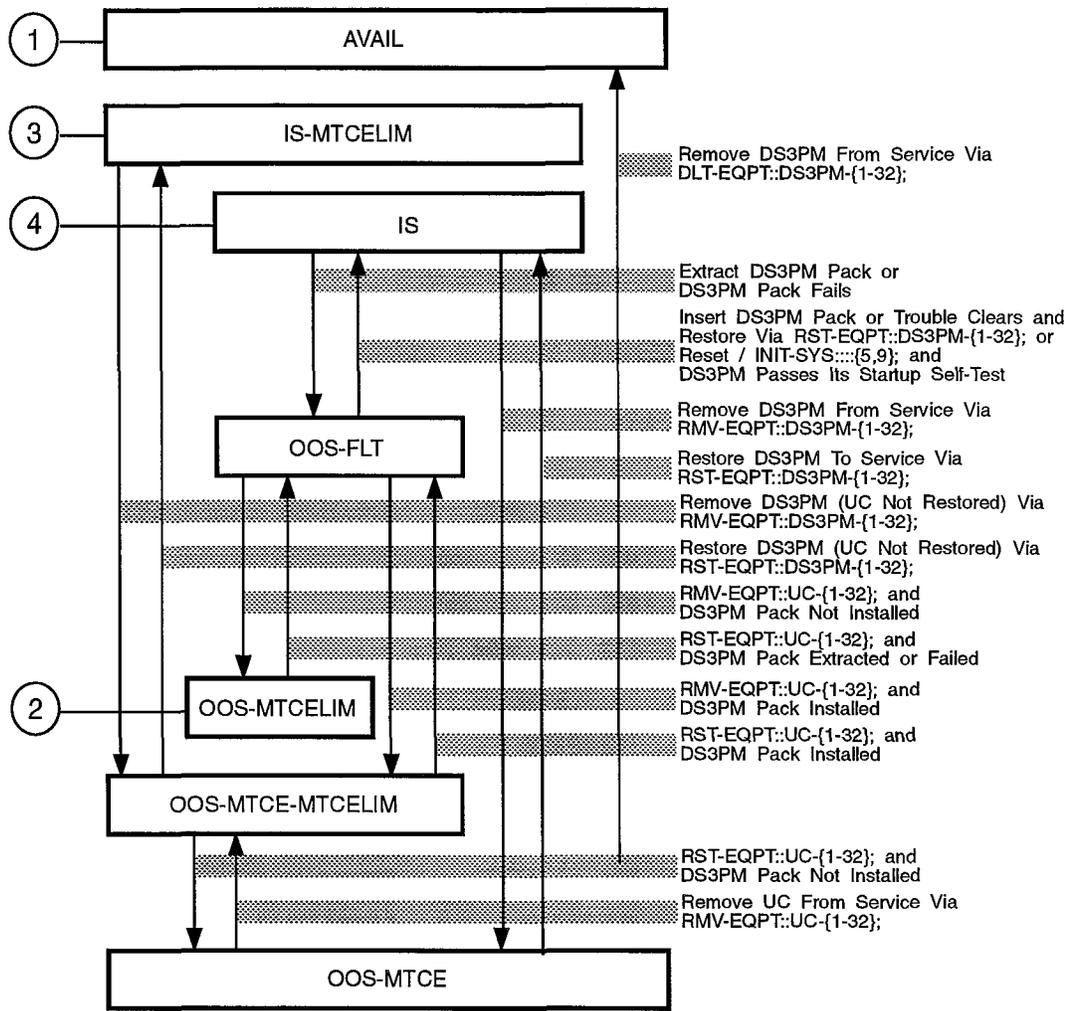
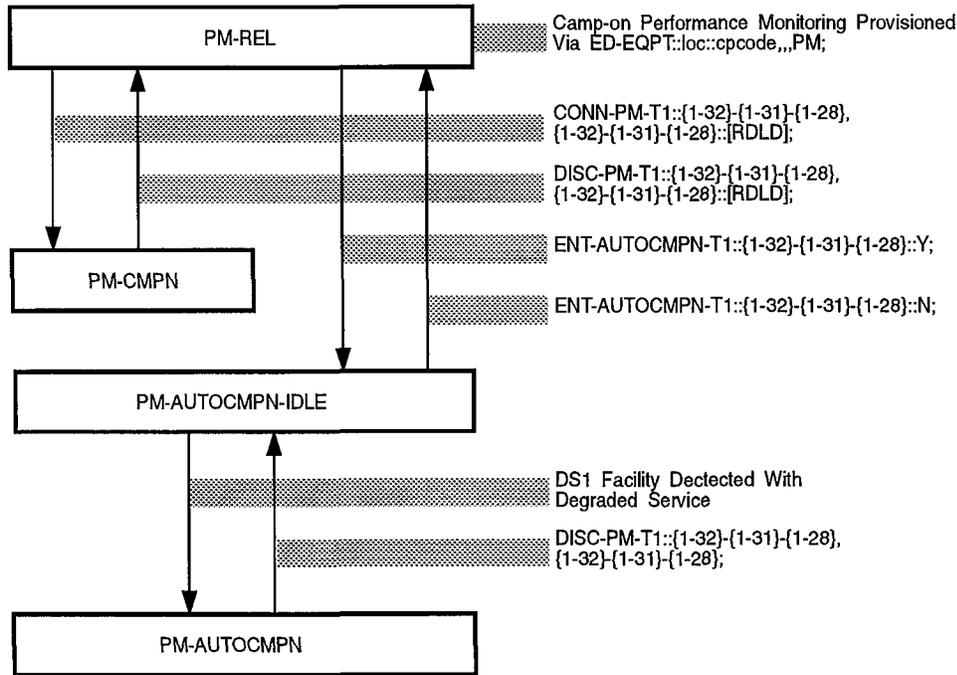
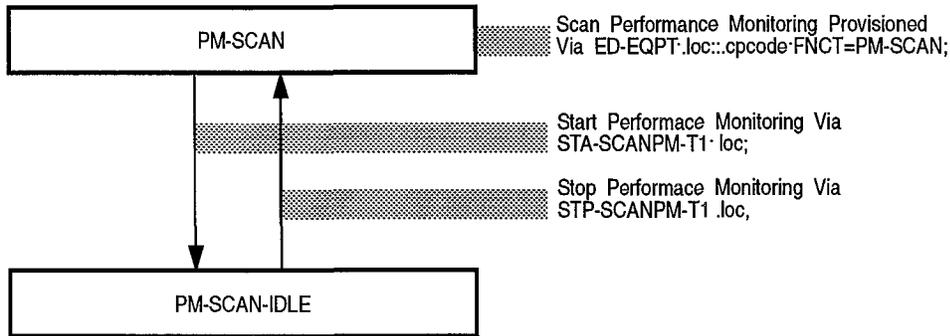


Figure J-28. DS3 Performance Monitor (DS3PM) State Transition Diagram (Sheet 2 of 2)

DS1 Performance Monitor Port States



A. Camp-On Performance Monitoring



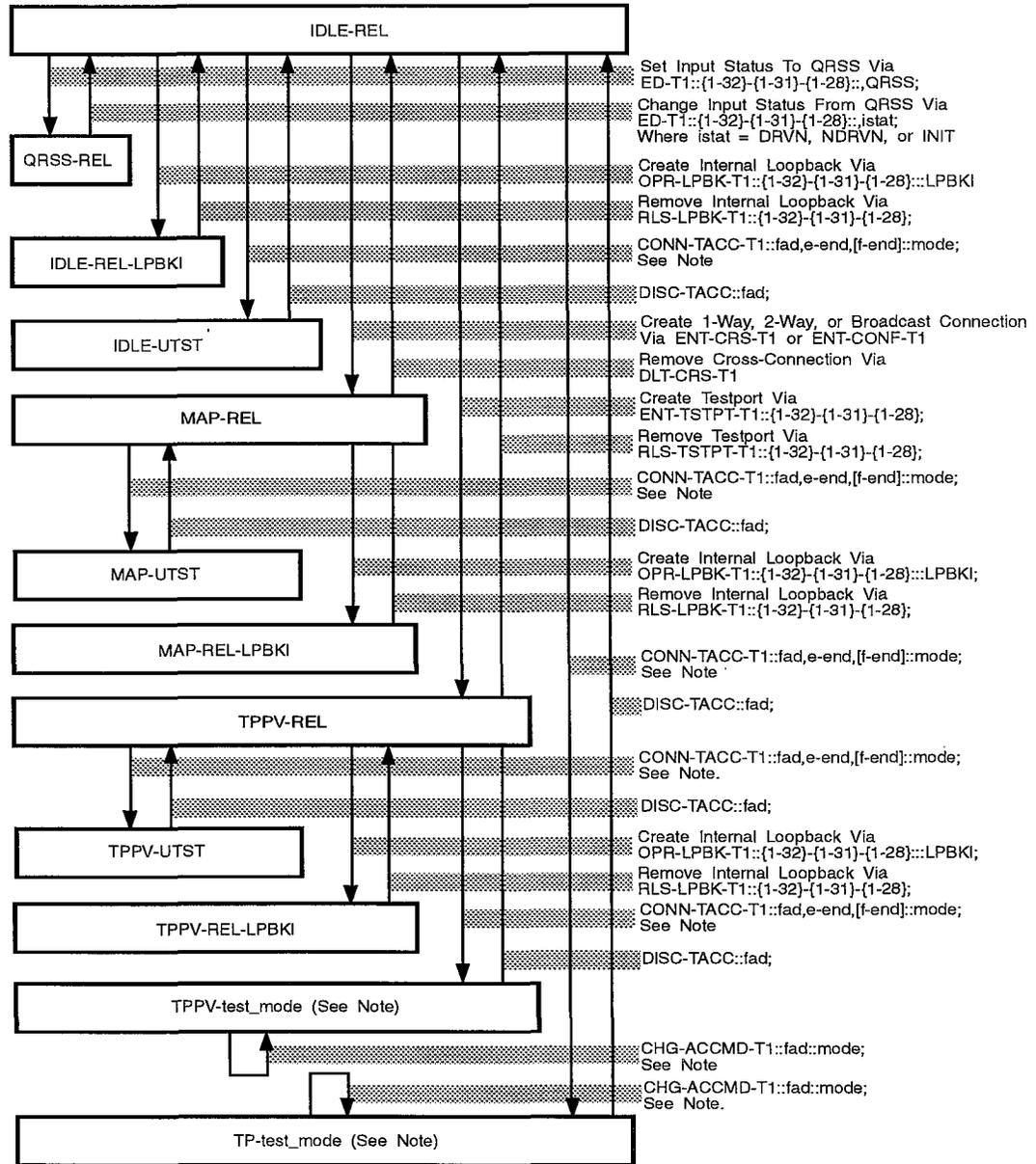
B. Scan Performance Monitoring

Note:

loc = Circuit pack location: { SWIF-{1-32}-{1-8}, MUX-{1-32}-{1-31} }  
 cpcode = Circuit pack code number **AKM66** (PMGR1)

Figure J-29. DS1 Performance Monitor Port State Transition Diagram

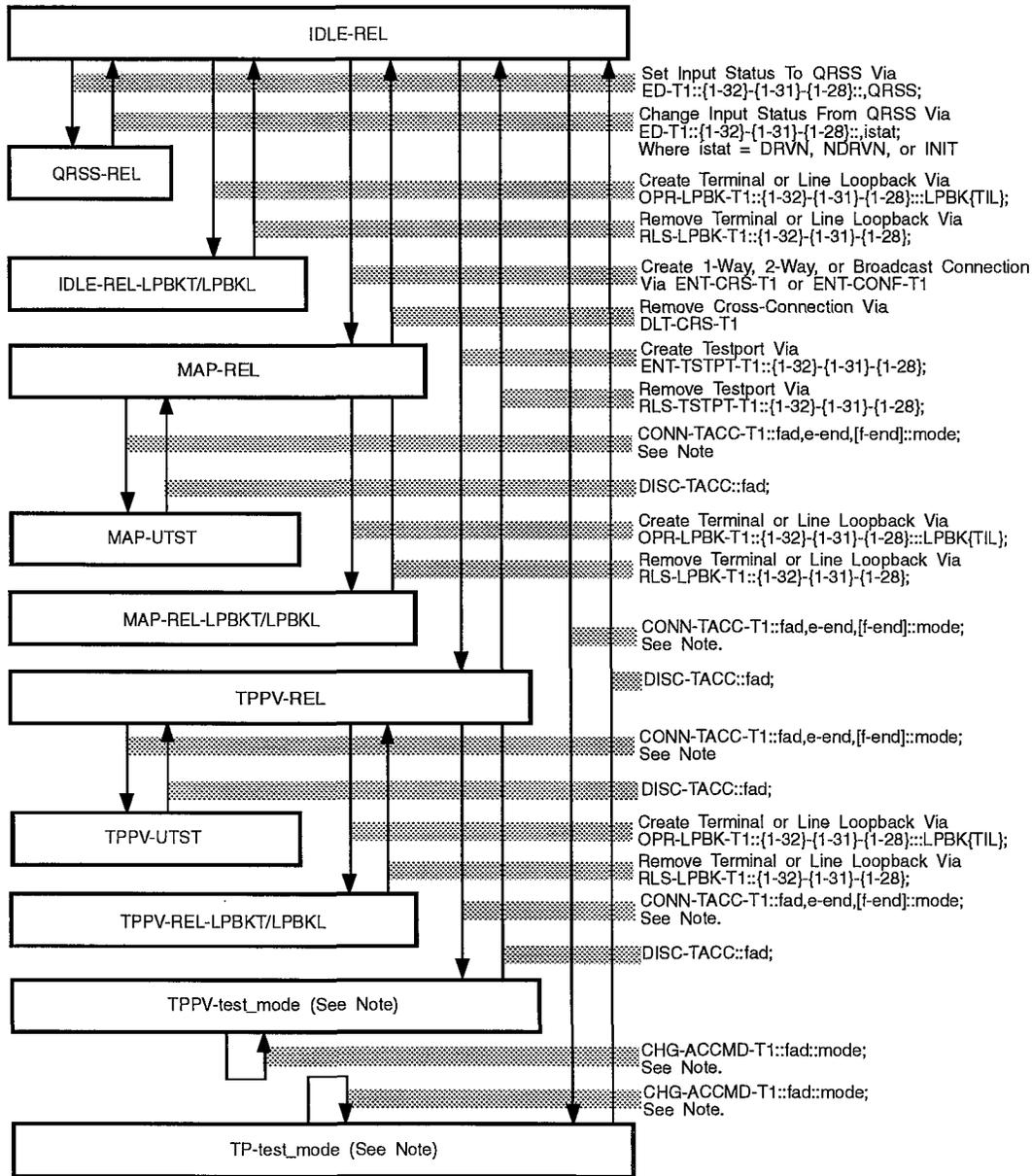
**DS1 Input Port States**



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If you specify a FAD on a PMGR circuit pack or the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-30. DS1 Input Port State Transition Diagram

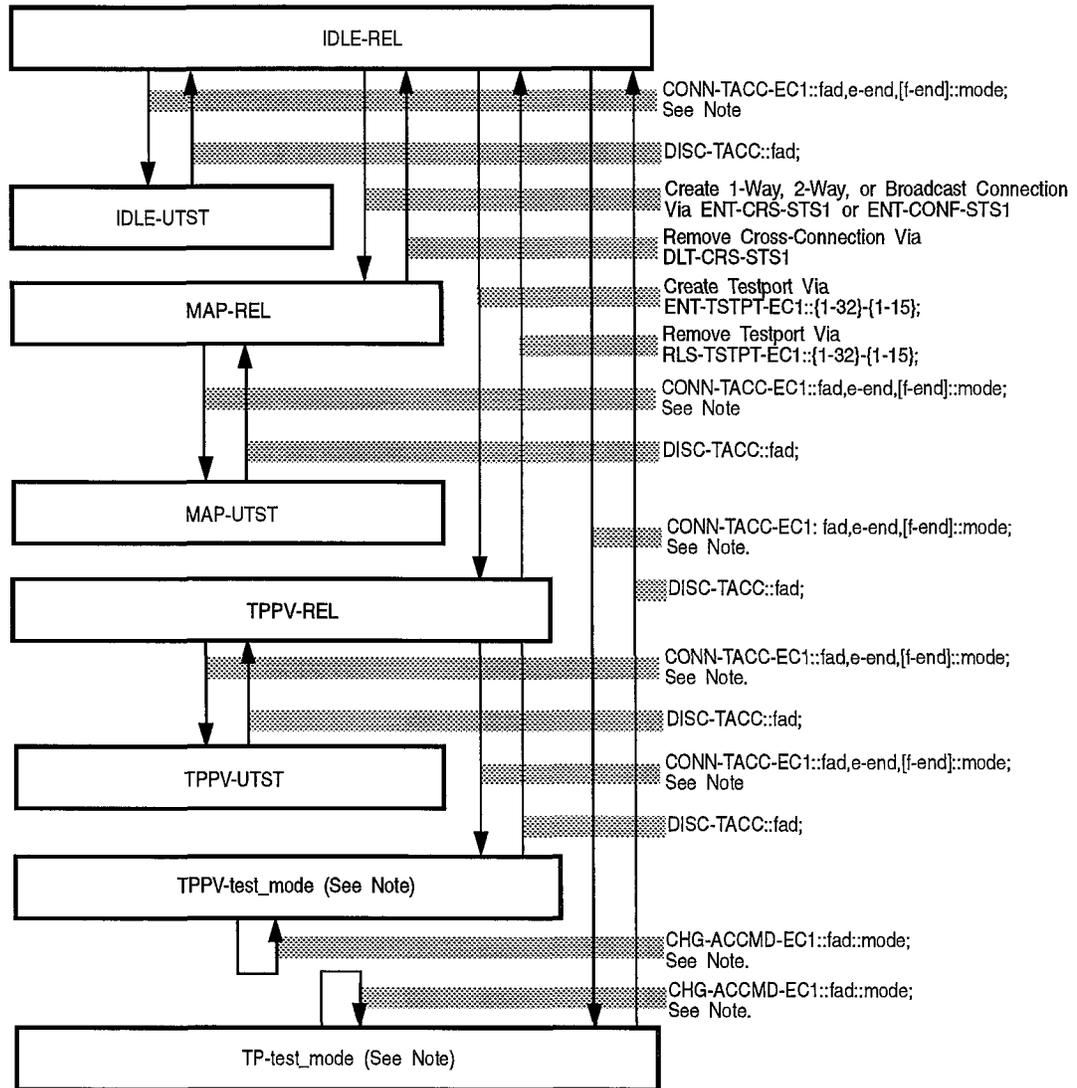
DS1 Output Port States



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If you specify a FAD on a PMGR circuit pack or the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-31. DS1 Output Port State Transition Diagram

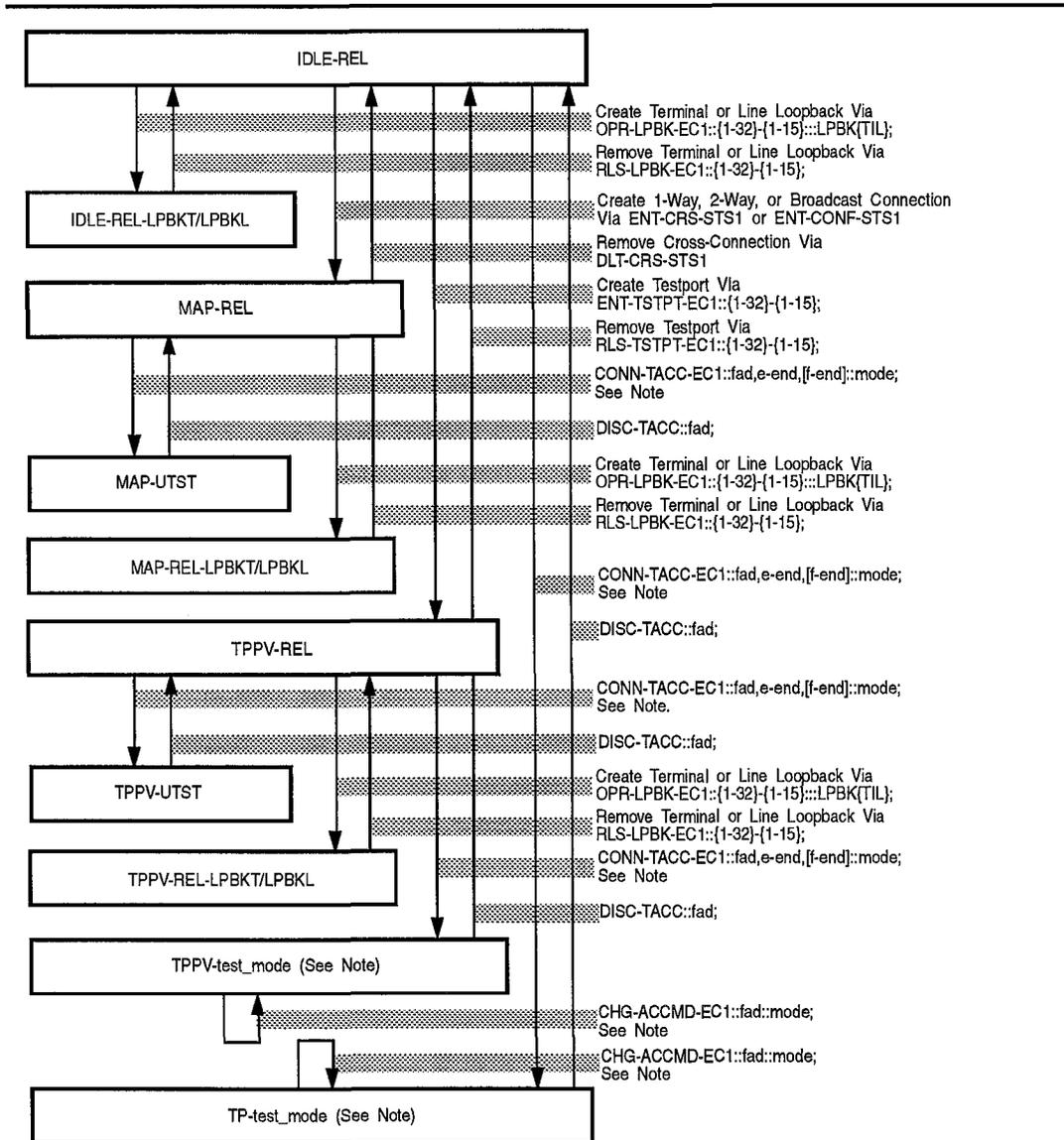
**STS-1 Input Port States**



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-32. STS-1 Input Port State Transition Diagram

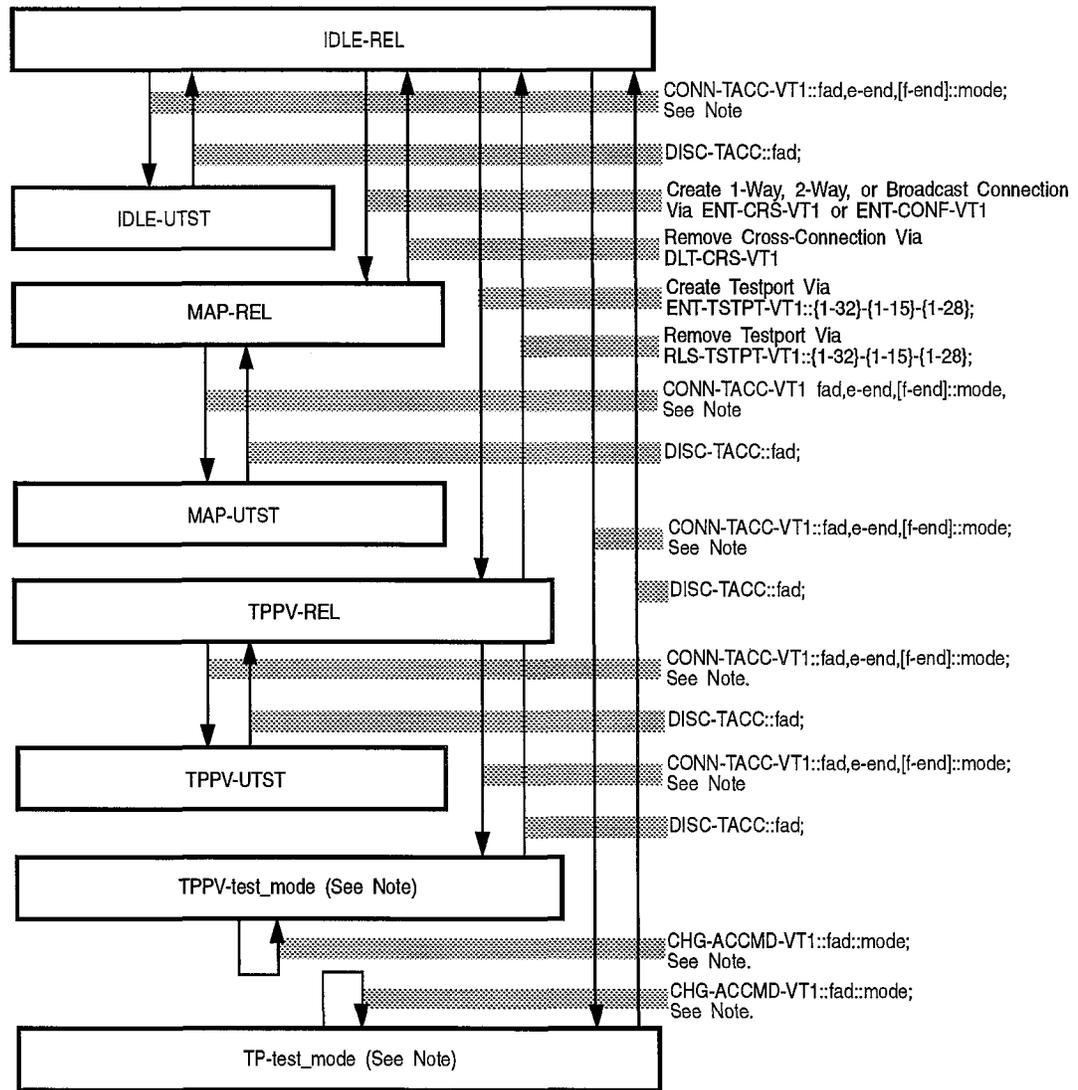
STS-1 Output Port States



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-33. STS-1 Output Port State Transition Diagram

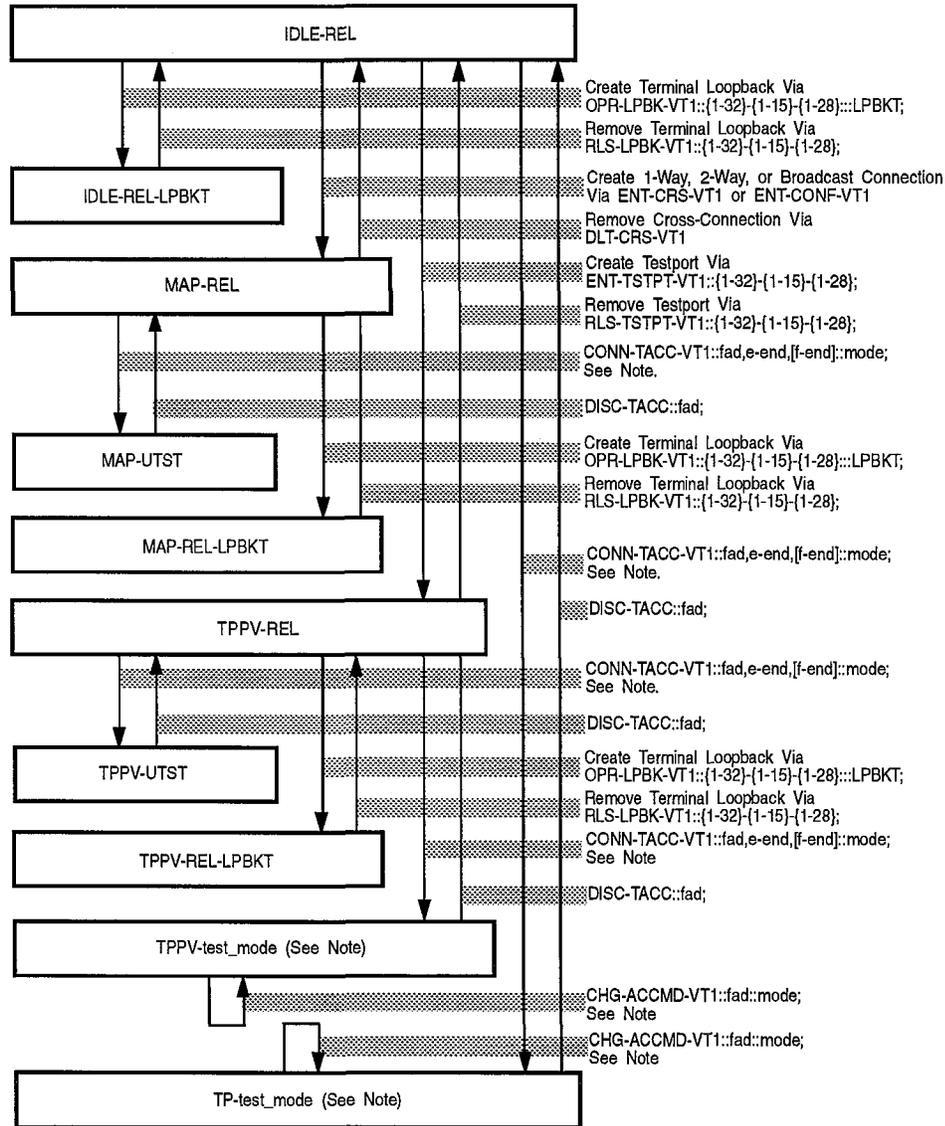
**VT1.5 Input Port States**



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPEF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-34. VT1.5 Input Port State Transition Diagram

VT1.5 Output Port States



**Note:** The available test modes are: MONE, MONF, MONEF, SPLTA, SPLTB, SPLTE, SPLTEF, LOOPE, and LOOPF. The test modes; SPLTEF and MONEF, can only be used for two-way cross-connections, all other test modes are for both one-way and two-way cross-connections. If the E-End port is in the IDLE-UTST state, the only test modes available are MONE, SPLTE, or LOOPE.

Figure J-35. VT1.5 Output Port State Transition Diagram

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&, Parameter Grouping 1-18  
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