



PRODUCT DOCUMENTATION

BTI 7000 Series TL1 Reference Guide

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Preface

This preface explains who should read this guide, related documentation, and documentation conventions.

Audience

This guide is primarily intended for technicians and network operation center (NOC) staff.

Features of the BTI 7000 Series

For detailed information about this release, see the *BTI 7000 Series Release Notes* for this release.

BTI 7000 Series common equipment

The following table lists the shelves and other common equipment introduced as part of the BTI 7000 Series. For detailed information, see the *BTI 7000 Series Product Guide* and the *BTI 7000 Series Common Equipment Installation Guide*.

BTI 7000 Series common equipment

| Equipment | PEC |
|--|------------------------------|
| BTI 7060 | BT7A50AA |
| BTI 7060 with rear access -48V | BT7A50AR |
| BTI 7060 Cooling Unit (CU) | BT7A52DA, BT7A52EA |
| BTI 7060 Main Shelf Interface (MSI) | BT7A53BA, BT7A53BB |
| BTI 7060 Expansion Shelf Interface (ESI) | BT7A54BA |
| BTI 7060/BTI 7200 System Control Processor (SCP) | BT7A20CA |
| BTI 7060 AC Power Assembly Kit | BT7A50BA |
| BTI 7060 AC Power Module | BT7A58AA |
| BTI 7060 Filler Panel Kit | BT7A55EA |
| 2U Cover – ANSI | BT7A5070 |
| 2U Cover – ETSI | BT7A5071 |
| BTI 7030 | BT7A56AA |
| BTI 7030 Cooling Unit (CU) | BT7A57BA |
| BTI 7030 Main Shelf Interface (MSI) | BT7A53CA, BT7153CB, BT7A53BB |
| BTI 7030 System Control Processor (SCP) | BT7A21BA |
| BTI 7030 AC Power Assembly Kit | BT7A56CA |
| BTI 7030 AC Power Module | BT7A58BA |
| 1U Cover – ANSI | BT7A5670 |
| 1U Cover – ETSI | BT7A5671 |
| BTI 7020 | BT7A56BA |
| BTI 7200 | BT7A51AA |

BTI 7000 Series common equipment (Continued)

| Equipment | PEC |
|--|---------------|
| BTI 7200 with rear access -48V | BT7A51AR |
| BTI 7200 Cooling Unit (CU) | BT7A52EA |
| BTI 7200 Main Shelf Interface (MSI) | BT7A53EA |
| BTI 7200 Common Communication Module (CCM) | BT7A54EA |
| BTI 7200 ANSI shelf cover | BT7A5180 |
| BTI 7200 ETSI shelf cover | BT7A5181 |
| BTI 7200 Air Deflector | BT7A59EA |
| BTI 7200 Installation kit | BT7A5034 |
| BTI 7200 Pack of 5 Mounting Bracket Pairs (7200) | BT7A5035 |
| BTI 7200 Pack of 5 Center Guides | BT7A5036 |
| Single Expansion Shelf Kit (2x 1310 SFP, 1x Dual SM Patch Cord 1.5m) | BP1A58LA-01.5 |
| Single Expansion Shelf Kit (2x 1310 SFP, 1x Dual SM Patch Cord 2m) | BP1A58LA-02 |

The BTI 7000 Series shelves support a wide range of modules. For the list of modules supported, see the *BTI 7000 Series Product Guide*.

The following table lists the BTI graphical user interface management software suite. For detailed information about each application, refer to the documentation set for the application.

Management software suite

| proNX Management Suite |
|---------------------------------------|
| proNX Service Manager (PSM) |
| proNX 900 Node Controller (proNX 900) |

Equipment compliance

The following table provides agency-compliance information for BTI 7000 Series equipment.



| Agency | Compliance information |
|------------------------|--|
| FDA | This equipment is classified by the FDA under IEC 60825, parts 1 and 2, as a Class 1 laser product with a Class 1 hazard rating. |
| FCC | This equipment complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. |
| Industry Canada | This Class A digital apparatus complies with Canadian ICES-003. |


Organization of the BTI 7000 Series documentation

The following guides are contained in the BTI 7000 Series documentation suite.

- *BTI 7000 Series Alarm and Troubleshooting Guide*
- *BTI 7000 Series Command Line Interface Reference Guide*
- *BTI 7000 Series Common Equipment Installation Guide*
- *BTI 7000 Series Dynamic Optical Layer Engineering Guideline*
- *BTI 7000 Series Management Communications Channel Solutions Guide*
- *BTI 7000 Series Multiplexing Solutions Guide*
- *BTI 7000 Series Muxponder Solutions Guide*
- *BTI 7000 Series Operations Solutions Guide*
- *BTI 7000 Series Optical Amplifier and DCM Solutions Guide*
- *BTI 7000 Series packetVX Solutions Guide*
- *BTI 7000 Series Product Guide*
- *BTI 7000 Series SNMP Overview Guide*
- *BTI 7000 Series Test and Turn-up Guide*
- *BTI 7000 Series TL1 Reference Guide*
- *BTI 7000 Series Transceiver InformationGuide*
- *BTI 7000 Series Transponder Solutions Guide*
- *BTI 7000 Series Upgrade Guide*
- *BTI 7000 Series Release Notes*
- BTI 7000 Series Quick Installation Notes (various)

Documentation conventions

| Convention | Description |
|---|---|
| Note | Means reader take note. Notes contain helpful suggestions or background information. |
|  Caution | Means reader be careful. Equipment damage or loss of data can result from your actions. |
|  Warning | Means reader be careful. Harm to yourself or others can result from your actions. |

| Convention | Description |
|---|--|
|  Laser Warning | Invisible laser radiation can be emitted from the aperture ports of amplifier circuit packs when no fiber cable is connected. Avoid exposure and do not stare into open apertures to avoid permanent eye damage. |

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1.0 Introduction to TL1 commands

The BTI 7000 Series supports a comprehensive and interactive Transaction Language One (TL1) interface based on Telcordia standards including GR-831, GR-199-CORE and GR-833-CORE.

The system supports up to 500 user ids and up to 24 concurrent TL1 user sessions.

A TL1 user id can run multiple sessions concurrently, up to the maximum of 24.

The TL1 interface is accessible through:

- the craft serial port using a VT-100 terminal (or terminal emulator).
- the craft port using telnet over TCP/IP.
- the management LAN port using telnet over TCP/IP.

This section covers the following topics:

- [1.1, “How TL1 commands are structured”](#)
- [1.2, “TL1 command format and symbols”](#)
- [1.3, “TL1 command help”](#)
- [1.4, “Starting and ending a TL1 session”](#)
- [1.5, “Suppressing autonomous messages”](#)
- [1.6, “BTI 7000 Series access identifiers”](#)

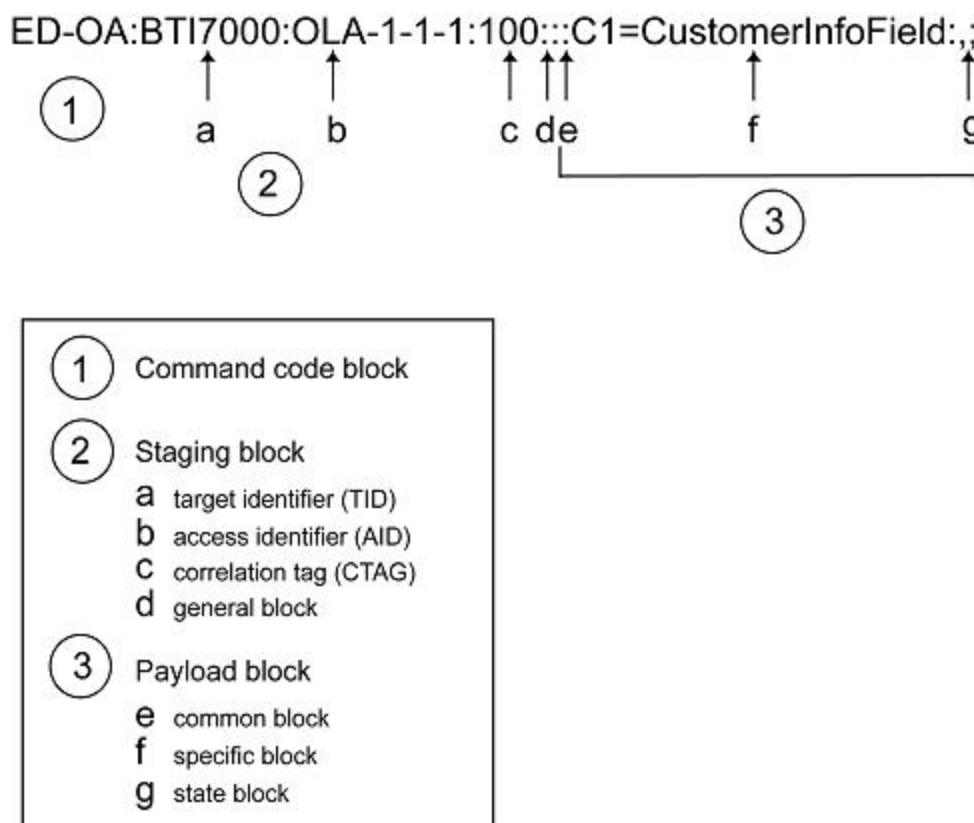
1.1 How TL1 commands are structured

A TL1 message must conform to the TL1 syntax. The GR-831 specification imposes syntax, semantics, information structure, and other rules for uniform construction of TL1 messages. In TL1, messages are the means by which the user can perform functions to manage the network element, and observe faults and events issued by the network element. There are two main types of standards-defined TL1 messages:

- **TL1 commands and responses.** These are initiated by a user and provide two parts: a request to the network element to get or set information, and a response from the network element containing completion or status codes and requested or chained information.
- **Autonomous messages.** These are messages that the network element issues indicating some change in its status.

For the BTI 7000 Series, the user executes TL1 requests through the TL1 command line interface, or indirectly through the proNX 900 Node Controller, and receives notifications from the network element (that is, autonomous events). Each component of the message is easily identifiable. Here is an example of an ED-OA command that edits the parameters of the identified optical amplifier.

Figure 1-1 TL1 Command Syntax



Note The TID defaults to BTI7000 unless the database has been migrated from an earlier software release where the TID was something other than BTI7000. Users can also change the TID by using either the ED-SYS or SET-SID command.

Note Pressing the Tab key as you enter a command enables you to automatically add default elements of the command without typing them in full.

1.1.1 Command code block

The command code block indicates the class of command. It also identifies the action to be taken on the network element that is identified.

1.1.2 Staging block

The staging block is a set of four data blocks (target identifier, access identifier, correlation tag, and general block) that follows the command code block. The staging block provides the information necessary to establish and identify an entity in the network element that can be managed.

Target identifier

The target identifier (TID) represents the target network element that receives the TL1 command. It corresponds to the network element's (NE) name or common language location identifier (CLLI) code.

Access identifier

An access identifier (AID) appears in most command argument strings. The AID identifies the equipment, facility, or specific management entity in a particular network element that is to be addressed by the command string.

The AID parameter typically consists of a number of fields separated by hyphens, which describe the physical location of the target for the TL1 request. For information about the AIDs that the BTI 7000 Series supports, see [1.6, "BTI 7000 Series access identifiers"](#).

Note As the BTI 7000 Series product line adds equipment, the number of possible shelf configurations increases. As a result, the range of various AIDs will vary depending on the type of shelf configuration that is provisioned. For example, the System Control Processor (SCP) for a BTI 7060 must be provisioned in shelf 1, slot 5 (that is, the AID is SCP-1-5). Likewise, the SCP for a BTI 7030 must be provisioned in shelf 1, slot 3 (that is, the AID is SCP-1-3). The SCP for a BTI 7200 must be provisioned in shelf 1, slot 1 (that is, the AID is SCP-1-1).

Three expansion shelves are supported currently. Each expansion shelf is connected directly to the SCP located in the main shelf.

To designate the function of each shelf, the following AIDs are used:

- MS-1 is the main shelf.
- ES-11 is an expansion shelf connected to port one of the SCP.

- ES-21 is an expansion shelf connected to port two of the SCP.
- ES-31 is an expansion shelf connected to port three of the SCP.

Correlation tag

The correlation tag (CTAG) is a sequential command identifier that correlates an input command with its associated output response(s). The CTAGs for a given network element received in commands from multiple operators or operating systems do not need to be unique. The value of a CTAG must be either a TL1 identifier or a non-zero decimal number consisting of no more than six characters.

The network element returns the CTAG with all response messages, including confirmation, failed and syntax error messages, and retrieved reports. If no CTAG is entered, the BTI 7000 Series returns a CTAG value of 100 by default.

General block

The general block supports parameters whose values affect the way that the input command is to be executed in the network element.

The presence of the general block in all input commands is a requirement but its value is typically null in the BTI 7000 Series, where the block is represented by two successive colons.

1.1.3 Payload block

The payload block begins with a colon and contains defined sequences of position-defined and name-defined parameters that comprise the specific subject matter of the message.

1.2 TL1 command format and symbols

The following command illustrates the format that the BTI 7000 Series TL1 commands use:

```
LOAD-DB-RST:[TID]::[CTAG]:::TYPE=<type>,[IPADDR=<ipaddr>],[PATH=<path>],
[USERID=<userid>],[PWD=<pwd>],[TIDCHK=<tidchk>];
```

The following table describes the command format used in the BTI 7000 Series TL1 command line.

Table 1-1 TL1 command format and symbols

| Format | Meaning |
|------------------------|--|
| <variable> | Any variable in angle brackets is required and represents a value. For example, the values for the <type> variable in the above example are SCP or FTP. |
| [optional] | Square brackets are used for constant variables, such as TID. A variable in a square bracket is optional. |
| [<variable>] | A variable in angle brackets inside square brackets is always optional. For example, the optional value for the variable <path> in [PATH=<path>] is the name of the backup file. |
| = | When indicated, the equal symbol must be included as part of the command string. For example, IPADDR=<ipaddr> is typed as IPADDR=10.0.0.1 (or the IP address of server). |
| UPPERCASE or lowercase | BTI 7000 Series TL1 commands are not case sensitive. Commands and variables can be typed in lowercase or uppercase characters. |

1.3 TL1 command help

When a question mark (?) is typed at an empty line, the TL1 interface displays all messages defined in the network element. In some cases, there are many command codes that are displayed when a question mark is entered. The TL1 interface provides for a page-by-page listing of all the messages defined in the network element.

When a question mark is typed after the command code block, the TL1 interface lists all the matching entries.

Once a complete command code block that matches a defined one in the network element is typed, typing a question mark shows all of the fields in the message. This is useful to request a template of the punctuation, parameters, and other formatting issues associated with the command syntax.

The TAB key also provides TL1 command completion functions. During the input of a command, pressing the TAB key causes the TL1 interface to complete the command to the extent possible—to the extent that it is unique. This option allows completion of commands where there is only one option. It reduces the amount of typing required and reduces input errors.

Previously input commands can be recalled by pressing the Up Arrow key. This causes them to replace any command in progress, at which point they can be edited, if required, and sent again to the network element.

1.4 Starting and ending a TL1 session

| Action | Command |
|--------------------------------|-------------------------------------|
| Start a TL1 session | ACT-USER:[TID]:<uid>:[CTAG]::<pid>; |
| End your TL1 session | CANC-USER:[TID]:<uid>:[CTAG]; |
| End another user's TL1 session | CANC-USER-SECU:[TID]:<uid>:[CTAG]; |

1.5 Suppressing autonomous messages

By default, the reporting of autonomous messages is enabled whenever a new session is initiated. Autonomous messages can be suppressed by issuing the INH-MSG-ALL command subsequent to user login.

1.6 BTI 7000 Series access identifiers

Table 1-2 BTI 7000 Series access identifiers

| AID | Syntax Structure |
|-----------|-------------------------------|
| Inventory | CCM-<shelf#>-<slot#> |
| | CU-<shelf#>-<slot#> |
| | ES-<shelf#> |
| | ESFP-<shelf#>-<slot#>-<port#> |
| | ESFP-<shelf#>-<port#> |
| | MS-<shelf#> |
| | OSC-<shelf#>-<slot#> |
| | SCP-<shelf#>-<slot#> |
| | SFP-<shelf#>-<slot#>-<port#> |
| | SH-<shelf#> |
| | SI-<shelf#> |
| | SLOT-<shelf#>-<slot#> |
| | XFP-<shelf#>-<slot#>-<port#> |
| Equipment | ES-<shelf#> |
| | MS-<shelf#> |
| | OSC-<shelf#>-<slot#> |
| | SCP-<shelf#>-<slot#> |
| | SH-<shelf#> |
| | C1ADM-<shelf#>-<slot#> |
| | C2ADM-<shelf#>-<slot#> |
| | C4MD-<shelf#>-<slot#> |
| | CDSC-<shelf#>-<slot#> |
| | CS-<shelf#>-<slot#> |
| | D1ADM-<shelf#>-<slot#> |
| | D2ADM-<shelf#>-<slot#> |
| | D4ADM-<shelf#>-<slot#> |
| | D4MD-<shelf#>-<slot#> |
| | D32MD1-<shelf#>-<slot#> |
| | D32MD2-<shelf#>-<slot#> |
| | D32MD3-<shelf#>-<slot#> |
| | D32MD4-<shelf#>-<slot#> |
| | MXP-<shelf#>-<slot#> |
| | LGA-<shelf#>-<slot#> |
| | MGA-<shelf#>-<slot#> |
| | MGM-<shelf#>-<slot#> |

Table 1-2 BTI 7000 Series access identifiers (Continued)

| AID | Syntax Structure |
|--|---|
| | OBA-<shelf#>-<slot#> |
| | OLA-<shelf#>-<slot#> |
| | OLAM-<shelf#>-<slot#> |
| | OPA-<shelf#>-<slot#> |
| | SMF20-<shelf#>-<slot#> |
| | SMF40-<shelf#>-<slot#> |
| | SMF60-<shelf#>-<slot#> |
| | SMF80-<shelf#>-<slot#> |
| | SBA-<shelf#>-<slot#> |
| | SPA-<shelf#>-<slot#> |
| | TPR-<shelf#>-<slot#> |
| | WM-<shelf#>-<slot#> |
| | WR-<shelf#>-<slot#> |
| | WT-<shelf#>-<slot#> |
| Optical Amplifier | LGA-<shelf#>-<slot#>-<#> |
| | MGA-<shelf#>-<slot#>-<#> |
| | MGM-<shelf#>-<slot#>-<#> |
| | OLA-<shelf#>-<slot#>-<#> |
| | OLAM-<shelf#>-<slot#>-<#> |
| | OBA-<shelf#>-<slot#>-<#> |
| | OPA-<shelf#>-<slot#>-<#> |
| | SBA-<shelf#>-<slot#>-<#> |
| | SPA-<shelf#>-<slot#>-<#> |
| OSPF | OSPF-<shelf#>-<slot#> |
| OSPF Interface | OSPF-<shelf#>-<slot#>-<#> |
| 4-Channel CWDM Mux/Demux Modules 1-4 (channels 1-4, 5-8, 9-12, 13-16) | C4MD-<shelf#>-<slot#>-<line#> |
| | C4MD-<shelf#>-<slot#>-<line#>-E (expansion) |
| | C4MD-<shelf#>-<slot#>-<line#>-<channel#> |
| 1-Channel CWDM OADM | C1ADM-<shelf#>-<slot#>-<line#> |
| | C1ADM-<shelf#>-<slot#>-<P> (passthrough) |
| | C1ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| Double 1-Channel OADM | C1ADM-<shelf#>-<slot#>-<line#> |
| | C1ADM-<shelf#>-<slot#>-<P> (passthrough) |
| | C1ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| 2-Channel CWDM OADM | C2ADM-<shelf#>-<slot#>-<line#> |
| | C2ADM-<shelf#>-<slot#>-<P> (passthrough) |
| | C2ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| CWDM and DWDM Splitter/Combiner | CDSC-<shelf#>-<slot#>-<line#> |

Table 1-2 BTI 7000 Series access identifiers (Continued)

| AID | Syntax Structure |
|--|---|
| | CDSC-<shelf#>-<slot#>-<line#>-C (CWDM) |
| | CDSC-<shelf#>-<slot#>-<line#>-D (DWDM) |
| DWDM Bidirectional Coupler/Splitter 1310nm and C-Band Coupler/Splitter | CS-<shelf#>-<slot#>-<line#> |
| 1-Channel DWDM OADM | D1ADM-<shelf#>-<slot#>-<line#> D1ADM-<shelf#>-<slot#>-<line#>-<P> (passthrough) D1ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| 2-Channel DWDM OADM | D2ADM-<shelf#>-<slot#>-<line#> D2ADM-<shelf#>-<slot#>-<line#>-<P> (passthrough) D2ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| 4-Channel DWDM OADM | D4ADM-<shelf#>-<slot#>-<line#> D4ADM-<shelf#>-<slot#>-<line#>-P (passthrough) D4ADM-<shelf#>-<slot#>-<line#>-<channel#> |
| 4-Channel DWDM Mux/Demux | D4MD-<shelf#>-<slot#>-<line#> D4MD-<shelf#>-<slot#>-<line#>-E (expansion) D4MD-<shelf#>-<slot#>-<line#>-<channel#> |
| 32-Channel DWDM Mux/Demux Module 1 (channels 1 to 8) | D32MD1-<shelf#>-<slot#>-<line#> D32MD1-<shelf#>-<slot#>-<line#>-E (expansion) D32MD1-<shelf#>-<slot#>-<line#>-<channel#> |
| 32-Channel DWDM Mux/Demux Module 2 (channels 9 to 16) | D32MD2-<shelf#>-<slot#>-<line#> D32MD2-<shelf#>-<slot#>-<line#>-E (expansion) D32MD2-<shelf#>-<slot#>-<line#>-<channel#> |
| 32-Channel DWDM Mux/Demux Module 3 (channels 17 to 24) | D32MD3-<shelf#>-<slot#>-<line#> D32MD3-<shelf#>-<slot#>-<line#>-E (expansion) D32MD3-<shelf#>-<slot#>-<line#>-<channel#> |
| 32-Channel DWDM Mux/Demux Module 4 (channels 25 to 32) | D32MD4-<shelf#>-<slot#>-<line#> D32MD4-<shelf#>-<slot#>-<line#>-E (expansion) D32MD4-<shelf#>-<slot#>-<line#>-<channel#> |
| SMF Dispersion Compensating Fiber Modules | SMF40-<shelf#>-<slot#>-<port#>-<channel#> SMF60-<shelf#>-<slot#>-<port#>-<channel#> SMF80-<shelf#>-<slot#>-<port#>-<channel#> SMF20-<shelf#>-<slot#>-<port#> SMF40-<shelf#>-<slot#>-<port#> SMF60-<shelf#>-<slot#>-<port#> SMF80-<shelf#>-<slot#>-<port#> |
| 10G Multiprotocol Transponder Dual 10G Multiprotocol Transponder Dual 10G Multiprotocol Transponder Lite | TPR-<shelf#>-<slot#>-<port#> |

Table 1-2 BTI 7000 Series access identifiers (Continued)

| AID | Syntax Structure |
|--|---|
| Wavelength Manager Transceiver | WM-<shelf#>-<slot#>-<port#> |
| Wavelength Regenerator Transceiver | WR-<shelf#>-<slot#>-<port#> |
| Wavelength Translator Transceiver | WT-<shelf#>-<slot#>-<port#> |
| 2-Port GbE Muxponder | MXP-<shelf#>-<slot#>-<port#> |
| 8-Port Multiprotocol Muxponder | MXP-<shelf#>-<slot#>-<port#> |
| 10-Port Multiprotocol Muxponder | MXP-<shelf#>-<slot#>-<port#> |
| STS1 (SONET)/VC4 (SDH) Path Facility Object | MXP-<shelf#>-<slot#>-<L1,L2, C1,C2,C3,C4...C10>-<facility#> |
| Virtual Concatenation Group | VCG-<shelf#>-<slot#>-<L1,L2>-<VCG#> |
| Product Release Number Software Image | ACTIVE INACTIVE |
| IP Interface | IP-<shelf#>-<slot#>-<port#> |
| Management Port/Channel/Interface | IP-NMS or ENET-1 |
| | IP-CRAFT or ENET-2 |
| | SER-1 |
| User | USER |
| User Profile | USER |

2.0 Data dictionary

This section provides information about the enumerated types that are used in various TL1 commands.

- 2.1, “AID type (aidtype)”
- 2.2, “ AID type (aidtype) (for DOL)”
- 2.3, “Baud rate (rate)”
- 2.4, “Command mode (cmdmde)”
- 2.5, “Condition type (condtype)”
- 2.6, “Condition type (condtype) (for DOL)”
- 2.7, “Environmental condition type (condtype)”
- 2.8, “Connector type (conntype)”
- 2.9, “Destination AID (dst_aid)”
- 2.10, “Encoding (encoding)”
- 2.11, “Equipment AID (aid)”
- 2.12, “Fiber type (fiber, fibertype)”
- 2.13, “Format (Format)”
- 2.14, “Gain level (gain)”
- 2.15, “Import as External LSA (ImportAsExternalLSA)”
- 2.16, “Input type (InputType)”
- 2.17, “Inventory AID (aid)”
- 2.18, “Inventory name (name)”

- 2.19, “Laser status (laserstatus)”
- 2.20, “Link state advertisement type (type)”
- 2.21, “Log category name (lognm)”
- 2.22, “Media rate (Mediarate)”
- 2.23, “Monitored type (montype) for Muxponder modules ”
- 2.24, “Monitored type (montype) for Optical Amplifiers”
- 2.25, “Monitored type (montype) for transceivers”
- 2.26, “Monitored type (montype) values and threshold crossing alerts (TCA) for Transponder modules ”
- 2.27, “Neighbor state (state)”
- 2.28, “Notification code (ntfncde)”
- 2.29, “Optical power received high threshold (oprht)”
- 2.30, “Optical power received low threshold (oprht)”
- 2.31, “Optical power transmitted high threshold (optht)”
- 2.32, “Optical power transmitted low threshold (optlt)”
- 2.33, “OSPF interface state type (OSPFIfStateType)”
- 2.34, “OSPF interface type (OSPFIfType)”
- 2.35, “OSPF redistribution type (OSPFRedist)”
- 2.36, “Port AID (aid) for passive modules”
- 2.37, “Port channel (PortChannel)”
- 2.38, “Power level (pwr) - output”
- 2.39, “Primary state (pst)”
- 2.40, “Protocol (Protocol) for Transponder modules”
- 2.41, “Secondary state (sst)”
- 2.42, “Source AID (src_aid), or Switchmate (swmate)”
- 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”
- 2.44, “Type (type)”
- 2.45, “User access privilege (uap)”
- 2.46, “VCG Type (vcgtype)”
- 2.47, “Wavelength (wavelength) for Multiplexing modules”
- 2.48, “XCVR Destination AID (dst_aid)”
- 2.49, “XCVR Source AID (src_aid)”

2.1 AID type (aidtype)

| Value | Meaning |
|------------|--------------------------------------|
| BRI | BRI port |
| EQPT | Equipment |
| HKI | Environmental Input |
| FC | FC port |
| GE | GE port |
| G1 - G24 | packetVX GE port |
| IP | Internet interface |
| LAG | Link Aggregation Group |
| NE | Network element |
| OA | Optical Amplifier |
| OCn | SONET port |
| ODU1 | ODU1 quadrant |
| OSC | Dynamic optical layer (DOL) OSC |
| PORT | DOL port |
| SECU | Security parameter |
| STMn | SDH port |
| STSn/STSnC | STS-1 path facility object (SONET) |
| SUBODU1 | SUBODU1 quadrant |
| VCn/VCnC | VC-4 path facility object (SDH) |
| WDM | DOL wavelength division multiplexing |
| WCH | DOL wavelength channel |
| XFP | packetVX line port (XFP) |

2.2 AID type (aidtype) (for DOL)

| Type | AID |
|------------------|---|
| Inventory - Slot | SLOT-(1,11,21,31)-(1-20) |
| DOL Equipment | DLA-(1,11,21,31)-(1-20) DCM-(1,11,21,31)-(1-20) ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19) D32MD1-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19) D32MD2-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19) D32MD3-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19) D32MD4-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19) D40MD-0-(1-255) D96MD-0-(1-255) |
| DOL OSC | DLA-(1,11,21,31)-(1-20) -L1 ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1 |
| ODCC | ALL (Applies only to RTRV commands.) DLA-(1,11,21,31)-(1-20) -L1 ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1 |
| OSPF Interface | OSPF-(1,11,21,31)-(1-20) -1 |
| DOL Group | (1-255) |
| DOL Degree | (1-255)-(1-4) |
| DOL Optical Port | DLA-(1,11,21,31)-(1-20) -(L1,C1,DCM) DCM-(1,11,21,31)-(1-20) -(DCM,EX) ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,C1-C4,DCM) D32MD1-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,CH220-CH290) D32MD2-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,CH320-CH390) D32MD3-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,CH420-CH490) D32MD4-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,CH520-CH590) D40MD-0-(1-255)-(L1,CH210-CH600) D96MD-0-(1-255)-(L1,CH135-CH610) |
| | Note Mux/Demux channel ports may be aliased by the following AIDs for TL1 command input: <ul style="list-style-type: none"> • (D32MD1,D32MD2,D32MD3,D32MD4)-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,CHD1-CHD32) • D40MD-0-(1-255)-(L1,CHD1-CHD32,CHE1-CHE8) • D96MD-0-(1-255)-(L1,CHD1-CHD32,CHE1-CHE8) |
| Fiber Connection | <Source Optical Port>,<Destination Optical Port> |

| Type | AID |
|-------------------------------------|---|
| | <p>For example:</p> <ul style="list-style-type: none"> DLA-(1,11,21,31)-(1-20) -C1,DLA-(1,11,21,31)-(1-20) -C1 DLA-(1,11,21,31)-(1-20) -DCM,DCM-(1,11,21,31)-(1-20) -DCM ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-C1,D40MD-0-{1-255}-L1 |
| WDM | <p>DLA-(1,11,21,31)-(1-20) -L1</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1</p> |
| Wavelength Channel | <p>ALL (Applies only to RTRV commands.)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1)-(180-610)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1)-(135-610)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C1)-(210-600) (Applies to the 40-channel ROB as a Terminal NE, using port C1 connected to D40MD or D32MD1)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C1)-(135-610) (Applies to 96-channel ROB as a Terminal NE, using port C1 connected to D96MD)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2)-(180-610) (Applies to 40-channel ROB as a Terminal NE, using port C2 connected to 44chs Alien Mux/Demux)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(180-610) (Applies to the 40-channel ROB as a ROADM NE, using ports C2,C3,C4 as passthrough)</p> <p>ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(135-610) (Applies to 96-channel ROB as a ROADM NE, using ports C2,C3,C4 as passthrough)</p> <p>D32MD1-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CH220-CH290)</p> <p>D32MD2-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CH320-CH390)</p> <p>D32MD3-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CH420-CH490)</p> <p>D32MD4-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CH520-CH590)</p> <p>D40MD-0-(1-255)-(CH210-CH600)</p> <p>D96MD-0-(1-255)-(CH135-CH610)</p> <p>Note</p> <p>Wavelength channel objects for wavelengths supported by the BTI legacy channel plan may be aliased by the following AIDs for TL1 command input:</p> <ul style="list-style-type: none"> ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,C1-C2)-(D1-D32,E1-E8) ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(L1,C1-C2)-(D1-D32,E1-E8) (D32MD1,D32MD2,D32MD3,D32MD4)-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CHD1-CHD32) D40MD-0-(1-255)-(CHD1-CHD32,CHE1-CHE8) D96MD-0-(1-255)-(CHD1-CHD32,CHE1-CHE8) |
| Wavelength-Channel Cross-Connection | <p>Example: <Source Wavelength Channel>,<Destination Wavelength Channel></p> |

| Type | AID |
|------|--|
| | <ul style="list-style-type: none"> • ALL (Applies only to RTRV commands.) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(210-600),D40MD-0-(1-255)-(CH210-CH600) (Applies to the 40-channel ROB as a Terminal or ROADM NE, using port C1 connected to D40MD) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(135-610),D96MD-0-(1-255)-(CH135-CH610) (Applies to the 96-channel ROB as a Terminal or ROADM NE, using port C1 connected to D96MD) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(210-600),D32MD1-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(CH220-CH290) (Applies to the 40-channel ROB as a Terminal or ROADM NE, using port C1 connected to D32MD1) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(180-610), ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-C2-(180-610) (Applies to the 40-channel ROB as a Terminal-only NE, using port C2 connected to 44chs Alien Mux/Demux) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(180-610),ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(180-610) (Applies to the 40-channel ROB as a ROADM NE, using port C2,C3,C4 connected as passthrough) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(135-610),ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-(C2,C3,C4)-(135-610) (Applies to the 96-channel ROB as a ROADM NE, using port C2,C3,C4 connected as passthrough) |
| | <p>Note</p> <p>Wavelength channel cross-connection objects for wavelengths supported by the BTI legacy channel plan may be aliased by the following example AIDs for TL1 command input:</p> <ul style="list-style-type: none"> • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(D1-D32,E1-E8),ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(D1-D32,E1-E8) • ROB-(1,11,21,31)-(1,3,5,7,9,11,13,15,17,19)-L1-(D1-D32,E1-E8) • D40MD-0-(1-255)-(CHD1-CHD32,CHE1-CHE8) • D96MD-0-(1-255)-(CHD1-CHD32,CHE1-CHE8) |

2.3 Baud rate (rate)

| Value | |
|-------|--------|
| 300 | 14400 |
| 1200 | 19200 |
| 2400 | 38400 |
| 4800 | 57600 |
| 9600 | 115200 |

2.4 Command mode (cmdmde)

| Value | Meaning |
|-------|---|
| NORM | Normal command operation (default value) |
| FRCD | Forced command operation (overrides existing parameter settings in an attempt to execute the command) |

2.5 Condition type (condtype)

Note For BTI 7000 Series Dynamic Optical Layer-related condition types, see [2.6, “Condition type \(condtype\) \(for DOL\)”](#).

Table 2-1 Condition types

| Value | Meaning |
|--|--|
| AIS-L Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | Alarm indication signal - line port - <ul style="list-style-type: none"> • OCN: SONET on a Muxponder module • PVX: packetVX module • XCVR: Transponder module |
| AIS-P Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | Alarm indication signal - STS Rx path |
| AIS-P (packetVX 80) | SONET alarm indication signal - path |
| AMPCOND | Amplifier condition |
| APPLDBRSTPASS | Applied database restore pass |
| AUTOPROVFAIL | Auto provisioning failure |
| BDI Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | Backward Defect Indicator - PVX |
| BWMISM | Bandwidth mismatch |
| CMMTUPGRDPASS | Commit upgrade pass |
| CONNMEA | Connector mismatch |
| CONTBUS | Control bus |
| CONTCOM | Control communications equipment failure |

Table 2-1 Condition types (Continued)

| Value | Meaning |
|-----------------|--|
| CUFEEDFAIL | Cooling unit feed failure |
| DBBKUPFAIL | Database backup failure |
| DBBKUPPASS | Database backup pass |
| DBBKUPPROG | Database backup in progress |
| DBLOADFAIL | Database load failure |
| DBLOADPASS | Database load pass |
| DBRECVRYFAIL | Database recovery fail |
| DBRSTPROG | Database restore in progress |
| DISKUSAGEHI | Disk usage high |
| DSPCOMMFAIL | DSP communications failure |
| EXPSHCOMDEVUNS | Expansion shelf communications device unsupported |
| EXPSHCOMLNKDOWN | Expansion shelf communications link down |
| EXPSHCOMLOS | Expansion shelf communications loss of signal |
| FA | Fuse alarm |
| FEEDAFAIL | Feed A failure |
| FEEDAFUSEFAIL | Circuit pack feed A fuse failure |
| FEEDBFAIL | Feed B failure |
| FEEDBFUSEFAIL | Circuit pack feed B fuse failure |
| FRCDWKSWBK | Active transceiver force switched to working |
| FRCDWKSWPR | Active transceiver force switched to protection |
| GAIN-NA-TX | Transmitted gain not achievable |
| GFPPLM | GFP payload mismatch |
| HTASUNS | High temperature automatic shutdown not supported by the MSI |
| INVKDBRSTFAIL | Invoke database restore failure |
| INVKDBRSTPASS | Invoke database restore pass |
| INVPROV | Invalid provisioning |
| IPLCKOUT | IP address locked out |
| LOCKOUTOFPR | Protection transceiver locked out |
| LOCKOUTOFWK | Working transceiver locked out |
| LOCKPROG | Locking in progress |
| LOA | Loss of alignment |
| LOF | Loss of frame |
| LOL | Loss of lock |
| LOLIGHT-RX | Received loss of light |
| LOM | Loss of multiframe |
| LOP-P | Loss of pointer path level |
| LOS | Loss of signal |

Table 2-1 Condition types (Continued)

| Value | Meaning |
|--|--|
| LOSYNC | Loss of synchronization |
| LPBK | Loopback |
| LSRMANOFF | Port TX laser control manually turned off |
| MANWKSWBK | Active transceiver manually switched to working |
| MANWKSWPR | Active transceiver manually switched to protection |
| OBR-HTSO | Optical back reflection - high threshold safety override |
| OSCLOS | Optical supervisory channel loss of signal |
| OTNPLM | OTN payload mismatch |
| OTU-TTI | Optical channel transport unit - Trail trace identifier |
| Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | |
| PACKUPGRDFAIL | Pack upgrade fail |
| PLM-P | SONET payload type mismatch |
| POS-RX-HIGH | Received power above specified range of operation |
| POS-RX-LOW | Received power below specified range of operation |
| PWR | Power failure (detected internal to the network element) |
| PWR-NA-TX | Transmitted power not achievable |
| PDC | Amplifier pump drive current exceeded |
| PWRBRWNT | Power brownout |
| RDI-L | SONET remote defect indication - line |
| RDI-P | SONET remote defect indication - path |
| RELNUMMEA | Release number mismatch |
| REPLUNITFAIL | Replaceable unit failure |
| REPLUNITHTAS | Circuit pack high temperature automatic shutdown |
| REPLUNITIDMEA | Replaceable unit identifier mismatch |
| REPLUNITMEA | Replaceable unit mismatch of equipment |
| REPLUNITMISS | Replaceable unit missing |
| REPLUNITPLUGIN | Replaceable unit plugged in |
| REPLUNITPWR | Circuit pack power failure |
| REPLUNITUNK | Replaceable unit unknown |
| REPLUNITUNPLUG | Replaceable unit unplugged |
| REPLUNITUNS | Replaceable unit unsupported |
| REPLUNITUS-SFP | SFP Unsupported |

Table 2-1 Condition types (Continued)

| Value | Meaning |
|--|---|
| RFI | Remote failure indication - XCVR |
| Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | |
| RPF | Remote path failure - |
| Note As of software version 9.2, the severities for this condition can be modified to: <ul style="list-style-type: none"> • MN: Minor • MJ: Major • CR: Critical • NA: Not Alarmed (Default) | <ul style="list-style-type: none"> • FC: Failure count • GE: Gigabit Ethernet |
| SCPRNCHGFAIL | SCP release number change failure |
| SCPRNCHGPASS | SCP release number change pass |
| SCPRNCHGPROG | SCP release number change in progress |
| SD | Signal degrade |
| SQM | Loss of sequence |
| SRVR-UNRESPONSIVE | The NTP server is not responding |
| SSI-LOLIGHT-RX | Second stage input received loss of light |
| SSI-POS-RX-HIGH | Second stage received power above specified range of operation |
| SSI-POS-RX-LOW | Second stage received power below specified range of operation |
| SWBNKAFAIL | Software bank A failure |
| SWBNKBFAIL | Software bank B failure |
| SYNCPRI | Loss of primary timing reference |
| SYNCSEC | Loss of secondary timing reference |
| SYSCHKFAIL | System check failure |
| SYSCHKPASS | System check pass |
| SYSKOM | System communications failure |
| SYSLOADFAIL | System load failure |
| SYSLOADPASS | System load pass |
| SYSUPGRDFAIL | System upgrade failure |
| SYSUPGRDPASS | System upgrade pass |
| SYSUPGRDPROG | System upgrade in progress |

Table 2-1 Condition types (Continued)

| Value | Meaning |
|----------------|---|
| TALNA | Target attenuation not achieved |
| T-CTEMP-HT | Case temperature high threshold |
| T-CTEMP-HTS | Case temperature high threshold shutdown |
| T-CV | Code violation threshold |
| T-CVS | Section code violation threshold |
| T-EB | Errored blocks threshold |
| T-ES | Errored seconds threshold |
| T-ESS | Section errored seconds threshold |
| T-FCP | Failure count at path layer threshold |
| T-FCSERX | Number of received frames with CRC error threshold |
| T-FRDR | Number of discarded frames threshold |
| T-FRER | Framing errors threshold |
| T-FSOOPT-HT | First stage output optical power transmitted above high threshold |
| T-FSOOPT-LT | First stage output optical power transmitted below low threshold |
| T-HPEB | High order path errored block threshold |
| T-HPES | High order path errored seconds threshold |
| T-HPSES | High order path severely errored seconds threshold |
| T-HPUAS | High order path unavailable seconds threshold |
| TIM | Transport identifier mismatch |
| T-INVBLK | Invalid blocks threshold |
| T-LTEMP-HTS | Laser temperature high threshold shutdown |
| T-LTEMP-LTS | Laser temperature low threshold shutdown |
| T-MSLOSS-HT | Mid-stage loss high threshold |
| T-NUMBITSCR | Number of bits corrected threshold |
| T-NUMBYTESCR | Number of bytes corrected threshold |
| T-OBR-HTS | Optical back reflection high threshold safety |
| T-OPR-HT | Optical power received high threshold |
| T-OPR-LT | Optical power received low threshold |
| T-OPT-HT | Optical power transmitted high threshold |
| T-OPT-LT | Optical power transmitted low threshold |
| TPLNA | Target power level not achieved |
| T-REPLUNIT-HT | Circuit pack high temperature threshold exceeded |
| T-REPLUNIT-HTS | Circuit pack high temperature shutdown threshold exceeded |
| T-RS-BBE | Regenerator section background block error threshold |
| T-RS-EB | Regenerator section errored block threshold |
| T-RS-ES | Regenerator section errored second threshold |

Table 2-1 Condition types (Continued)

| Value | Meaning |
|--------------|--|
| T-RS-OFS | Regenerator section out of frame seconds threshold |
| T-RS-SES | Regenerator section severely errored second threshold |
| T-SEFS | Severely errored framing seconds threshold |
| T-SEFS-S | Section severely errored framing seconds threshold |
| T-SES | Severely errored seconds threshold |
| T-SES-P | Path severely errored seconds |
| T-SESS | Section severely errored seconds threshold |
| T-SSIOPR-HT | Second stage input optical power received high threshold |
| T-SSIOPR-LT | Second stage input optical power received low threshold |
| T-TEMP-HT | Temperature high threshold |
| T-TFRCRX | Total frame count in receive direction threshold |
| T-TFRCTX | Total frame count in transmit direction threshold |
| T-UAS | Service unavailable threshold |
| T-UASP | Path service unavailable threshold |
| T-UNCRCDWRD | Number of uncorrectable code words threshold |
| TILT-NA-TX | Tilt not achievable |
| UNEQ-P | STS RX path unequipped |
| UPGRDPROG | Upgrade in progress |
| USRLCKOUT | User locked out |
| WKSWBK | Active transceiver automatically switched to working |
| WKSWPR | Active transceiver automatically switched to protection |
| WNA | Wavelength not achievable |

2.6 Condition type (condtype) (for DOL)

| Type | Value | Meaning |
|--------------------------|-----------------|--|
| Equipment | REPLUNITDEGRADE | Circuit Pack Degrade |
| OSC | LOF | Loss of Frame |
| | LOLIGHT-RX | Received Loss of Light |
| | LOLIGHT-TX | Transmitted Loss of Light |
| | FECI | Far-end Node Configuration Inconsistent |
| | FEIM | Far-end Node Identification Mismatch |
| | OBROS | Optical Back Reflection Out of Specification |
| | CONTCOM-S | Control Communications Failure, Span Section |
| | CONTCOM-E | Control Communications Failure, Equalization Section |
| Optical Port | POS-RX | Received Power Out of Specification |
| | LOLIGHT-RX | Received Loss of Light |
| | LOSPEC-RX | Received Loss Out of Specification |
| | T-LOSSRX-HT | Received Loss High Threshold Exceeded |
| | APSD | Automatic Power Shutdown |
| | PMI | Payload Missing Indication |
| | BDI | Backward Defect Indication |
| | CHNDFC | Channel Count Deficiency |
| | CNXMEA | Connection Mismatch |
| | CNXVLDTMOUT | Connection Validation Timeout |
| WDM | IAOCP | Invalid Amplifier Operating Configuration, Pre-amplifier |
| | IAOCM | Invalid Amplifier Operating Configuration, Mid-amplifier |
| | IAOCB | Invalid Amplifier Operating Configuration, Booster-amplifier |
| Wavelength Channel (WCH) | POS-RX-HIGH | Received Power Out of Specification -High |
| | POS-RX-LOW | Received Power Out of Specification - Low |
| | POS-TX | Transmitted Power Out of Specification |
| | OPR-HIGH-FAIL | Received Power High Fail |
| | LOLIGHT-RX | Received Loss of Light |
| | LOLIGHT-TX | Transmitted Loss of Light |
| | UNEQ-O | Wavelength Channel Unequipped |
| | AIS-O | Alarm Indication Signal, Optical Level |

2.7 Environmental condition type (condtype)

Table 2-2 MSI module environmental alarms

| Alarm type (almtype) or condition type (condtype) | Default alarm message (almmsg) or condition description (conddescr) |
|---|---|
| UNASSIGNED | (None) |
| AIRCOMPR | Air compressor failure |
| AIRCOND | Air conditioning failure |
| AIRDRYR | Air Dryer failure |
| BATDSCHRG | Battery discharging |
| BATTERY | Battery failure |
| POWER | Commercial power failure |
| CLFAN | Cooling fan failure |
| CPMAJOR | Centralized Power Major |
| CPMINOR | Centralized Power Minor |
| DOOROPEN | Enclosure door open |
| ENGINE | Engine failure |
| ENGOPRG | Engine operating |
| EXPLGS | Explosive gas |
| FIRDETR | Fire detector failure |
| FIRE | Fire |
| FLOOD | Flood |
| FUSE | Fuse failure |
| GEN | Generator failure |
| GENERIC | (None) |
| HIAIR | High airflow |
| HIHUM | High humidity |
| HITEMP | High temperature |
| HIWIND | High wind |
| HIWTR | High water |
| ICEBUILDUP | Ice build up |
| INTRUDER | Intrusion detection |
| LWBATVG | Low battery voltage |
| LWFUEL | Low fuel |
| LWHUM | Low humidity |
| LWPRES | Low cable pressure |
| LWTEMP | Low temperature |
| LWWTR | Low water |
| MISC | Miscellaneous |

Table 2-2 MSI module environmental alarms (Continued)

| Alarm type (almtype) or condition type (condtype) | Default alarm message (almmsg) or condition description (conddescr) |
|---|---|
| OPENDR | Open door |
| POWER | Commercial power failure |
| PUMP | Pump failure |
| RECT | Rectifier failure |
| RECTHI | Rectifier high voltage |
| RECTLO | Rectifier low voltage |
| SMOKE | Smoke |
| TOXICGAS | Toxic gas |
| UNSUPPORTED | Housekeeping Input Not Supported |
| VENTN | Ventilation system failure |

2.8 Connector type (conntype)

| Value | Meaning |
|-------------------------------|---|
| BNC_TNC | Bayonet Neill Concelman connector / Threaded BNC connector |
| COPPER_PIGTAIL | Copper pigtail connector |
| FIBERJACK | Fiber jack connector - an RJ-45 style SFF fiber optic connector |
| FIBER_CHANNEL_COAXIAL_HEADERS | Fiber channel coaxial header connector |
| FIBER_CHANNEL_STYLE_1_COPPER | Fiber channel style 1 copper connector |
| FIBER_CHANNEL_STYLE_2_COPPER | Fiber channel style 2 copper connector |
| HSSDC_II | High speed serial data connector 2 |
| LC | LC connector |
| MT_RJ | MT-RJ connector |
| MU | MU connector |
| OPTICAL_PIGTAIL | Optical pigtail connector |
| SC | SC connector |
| SG | SG connector |
| UNKNOWN | Unknown connector |
| VENDOR_SPECIFIC | Vendor specific connector |

2.9 Destination AID (dst_aid)

| Type | Destination AID | | |
|---|--|--|---|
| | Data Client (GE, FC, BRI) | Synchronous (OCn/STMn) | Line 2 |
| STS_n/STS_nC | | | |
| STS1 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...48) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...192) |
| STS3C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...46) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...190) |
| STS6C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...43) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...187) |
| STS9C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...40) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...184) |
| STS12C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...37) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...181) |
| STS15C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...34) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...178) |
| STS18C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...31) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...175) |
| STS21C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...28) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...172) |
| STS24C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...25) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...169) |
| STS30C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...19) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...163) |
| STS36C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...13) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...157) |
| STS48C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...145) |
| STS72C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not supported | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1,4,7,10...121) |
| VC_n/VC_nC | | | |
| VC4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...16) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-64) |
| VC2C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...15) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-63) |
| VC3C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...14) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-62) |
| VC4C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...13) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-61) |
| VC5C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...12) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-60) |
| VC6C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...11) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-59) |

| Type | Destination AID | | |
|-------|--|--|---|
| | Data Client (GE, FC, BRI) | Synchronous (OCn/ STMn) | Line 2 |
| VC7C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...10) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-58) |
| VC8C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...9) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-57) |
| VC10C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...7) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-55) |
| VC12C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1...5) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-53) |
| VC16C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4)-(1) | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-49) |
| VC24C | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not supported | MXP-(1,11,21,31)-(1,3,5...19)-(L2)-(1-41) |

2.10 Encoding (encoding)

| Value | Meaning |
|-----------------|-----------------------------|
| 4B5B | 4-bit/5-bit encoding |
| 8B10B | 8-bit/10-bit encoding |
| MANCHESTER | Manchester encoding |
| NRZ | Non-return to zero encoding |
| SONET_SCRAMBLED | SONET scrambled encoding |
| UNKNOWN | Unknown encoding |

2.11 Equipment AID (aid)

Note For BTI 7000 Series Dynamic Optical Layer-related equipment AIDs, see [2.2, “AID type \(aidtype\) \(for DOL\)”](#).

| Equipment type | AID |
|------------------------------|--|
| All | ALL - this AID applies only to the following commands: <ul style="list-style-type: none"> • RTRV-ALM-ALL • RTRV-ALM-EQPT • RTRV-COND-ALL • RTRV-COND-EQPT • RTRV-EQPT |
| Main Shelf | MS-(1) |
| Expansion Shelf | ES-(11,21,31) ESFP-1-5-(1-3) ESFP-(11,21,31)-1 |
| Shelf | SH-(1,11,21,31) |
| System Control Processor | SCP-(1)-(1,3,5) |
| Common Communications Module | CCM-(1,11,21,31)-1 |
| Cooling Unit | CU-(1,11,21,31) CU-(1,11,21,31)-(1-4) |
| Optical Amplifiers | OBA-(1,11,21,31)-(1-20) OLA-(1,11,21,31)-(1-20) OLAM-(1,11,21,31)-(1-20) OPA-(1,11,21,31)-(1-20) SBA-(1,11,21,31)-(1-20) SPA-(1,11,21,31)-(1-20) LGA-(1,11,21,31)-(1-20) MGA-(1,11,21,31)-(1-20) MGM-(1,11,21,31)-(1-20) |
| DCMs | SMF20-(1,11,21,31)-(1-20) SMF40-(1,11,21,31)-(1-20) SMF60-(1,11,21,31)-(1-20) SMF80-(1,11,21,31)-(1-20) |
| Multiplexers/Demultiplexers | C1ADM-(1,11,21,31)-(1-20) C2ADM-(1,11,21,31)-(1-20) C4MD-(1,11,21,31)-(1-20) CDSC-(1,11,21,31)-(1-20) CS-(1,11,21,31)-(1-20) D1ADM-(1,11,21,31)-(1-20) |

| Equipment type | AID |
|----------------|----------------------------------|
| | D2ADM-(1,11,21,31)-(1-20) |
| | D4ADM-(1,11,21,31)-(1-20) |
| | D4MD-(1,11,21,31)-(1-20) |
| | D32MD1-(1,11,21,31)-(1,3,5...19) |
| | D32MD2-(1,11,21,31)-(1,3,5...19) |
| | D32MD3-(1,11,21,31)-(1,3,5...19) |
| | D32MD4-(1,11,21,31)-(1,3,5...19) |
| Muxponders | MXP-(1,11,21,31)-(1-20) |
| Transponders | TPR-(1,11,21,31)-(1-20) |
| | WM-(1,11,21,31)-(1-20) |
| | WR-(1,11,21,31)-(1-20) |
| | WT-(1,11,21,31)-(1-20) |
| packetVX | PVX-(1,11,21,31)-(1,3,5...19) |

2.12 Fiber type (fiber, fibertype)

| Value | Meaning |
|-----------|---------------------------------------|
| DSF | Dispersion-shifted fiber |
| MULTIMODE | Multimode fiber |
| NONE | No fiber type |
| NDSF | Non dispersion-shifted fiber (SMf-28) |
| NZDSF | Non-zero dispersion-shifted fiber |

2.13 Format (Format)

| Value | Meaning |
|---------|-----------------------------|
| STS1CnV | SONET concatenation |
| VC4CnV | SDH concatenation |
| VCGtype | Virtual concatenation group |

2.14 Gain level (gain)

| Amplifier | Range | Default |
|-----------|--------------|---------|
| OPA | 27.0 | 27.0 |
| OBA | 10.0 | 10.0 |
| OLA | 16.0 to 26.0 | 16.0 |
| OLAM | 19.0 to 29.0 | 19.0 |
| SBA | 18.0 | 18.0 |
| SPA | 27.0 | 27.0 |
| LGA | 5.0 to 16.0 | 5.0 |
| MGA | 16.0 to 26.0 | 16.0 |
| MGM | 19.0 to 29.0 | 19.0 |

2.15 Import as External LSA (ImportAsExternalLSA)

| Value | Meaning |
|-------------|--|
| AS_EXTERNAL | Import autonomous system external LSAs |
| NO_EXTERNAL | Import no external LSA |

2.16 Input type (InputType)

The input type identifies the normal state for an input on a MSI module that supports environmental inputs (BT7A53BB/CB) and the conditions that trigger an alarm.

Note If you enable an input on an MSI module that does not support environmental inputs (BT7A53BA/CA), an UNSUPPORTED alarm is raised against that AID.

| Value | Meaning |
|-------------------|--|
| NO | Input normally open. An alarm/condition is raised if the input is closed. |
| NC | Input normally closed. An alarm/condition is raised if the input is open. |
| DISABLE (default) | Input is disabled. No alarm/condition is raised regardless of input state. |

2.17 Inventory AID (aid)

| Type | AID |
|---------------------------|--|
| All | ALL |
| CCM-(1,11,21,31)-1 | Common Communications Module |
| CU-(1,11,21,31) | Cooling Unit |
| CU-(1,11,21,31)-(1-4) | |
| Expansion Shelf | ES-(1,11,21,31)-ALL |
| | ES-(11,21,31) |
| Expansion Shelf Interface | ESFP-1-5-(1-3) |
| | ESFP-1-5-(1-3) |
| | ESFP-(11,21,31)-(1-2) |
| Main Shelf | MS-1 |
| | MS-1-ALL |
| SFP | SFP-(1,11,21,31)-(1-20)-(1-4) |
| | SFP-(1,11,21,31)-(1-20)-(L1,L2,C1-C10) |
| Shelf | SH-(1,11,21,31) |
| Shelf Interconnect Slot | SI-(1,11,21,31) |
| | SI-(1,11,21,31)-ALL |
| Slot | SLOT-(1,11,21,31)-(1-20) |
| | SLOT-(1,11,21,31)-(1-20)-ALL |
| XFP | XFP-(1,11,21,31)-(1-20)-(1-4) |
| | XFP-(1,11,21,31)-(1,3,5...19)-(L1,L2) |

2.18 Inventory name (name)

| Type | Name |
|-----------------------------|---------|
| Filler Modules | FLLR |
| Main Shelf | MS |
| Main Shelf Interface | MSI |
| Common Communication Module | CCM |
| Cooling Unit | CU |
| Optical Amplifiers | OBA |
| | OLA |
| | OLAM |
| | OPA |
| | SBA |
| | SPA |
| | LGA |
| | MGA |
| | MGM |
| DCMs | SMF20 |
| | SMF40 |
| | SMF60 |
| | SMF80 |
| | SMF5E |
| | SMF15E |
| | SMF25E |
| | SMF35E |
| | SMF10E |
| | SMF20E |
| | SMF30E |
| | SMF40E |
| | SMF50E |
| | SMF60E |
| | SMF70E |
| | SMF80E |
| | SMF90E |
| | SMF100E |
| Multiplexers/Demultiplexers | C1ADM |
| | C2ADM |
| | C4MD |
| | CDSC |
| | CS |

| Type | Name |
|---------------------|--------|
| | D1ADM |
| | D2ADM |
| | D4ADM |
| | D4MD |
| | D32MD1 |
| | D32MD2 |
| | D32MD3 |
| | D32MD4 |
| Muxponders | MXP |
| Transponders | TPR |
| | WM |
| | WR |
| | WT |
| DWDM Line Amplifier | DLA2 |
| DWDM - 2D ROADM | ROB2 |
| DWDM - 4D ROADM | ROB4 |
| packetVX | PVX |

2.19 Laser status (laserstatus)

| Value | Meaning |
|----------|---|
| IDLE | Lasers are idle |
| ON | Lasers are on |
| OFF | Lasers are off |
| AIS-L | Lasers are transmitting SONET AIS |
| ODU2-AIS | Lasers are transmitting OTN G.709-compliant ODU2-AIS. |
| MS-AIS | Lasers are transmitting SDH AIS |

Note AIS-L, ODU2-AIS, and MS-AIS apply to transceivers only.

2.20 Link state advertisement type (type)

| Value | Meaning |
|--------------|--|
| ASETERNAL | Type 5 - Autonomous System Border Routers external information about destinations outside the OSPF domain |
| ASSUMMARY | Type 4 - Autonomous System Border Routers summary information about the ASBRs outside the area |
| MULTICAST | Type 6 - multicast information about OSPF routers |
| NETWORK | Type 2 - network information about a LAN and the routers connected to it |
| NSSAEXTERNAL | Type 7 - Not-So-Stubby Area (NSSA) external information about routes generated by Autonomous System Border Routers |
| ROUTER | Type 1 - router information about the router and its directly connected links |
| SUMMARY | Type 3 - summary information about networks that are reachable outside the area |

2.21 Log category name (lognm)

| Value | Meaning |
|---------------------------------------|--------------------------|
| ALL | All categories |
| ALM | Alarm category |
| CMD | Command category |
| DBCHG | Database change category |
| EVT | Event category |
| SECU | Security category |
| Note | |
| Applies only to the RTRV-LOG command. | |

2.22 Media rate (Mediarate)

| Value | Meaning |
|--------|-----------------------|
| 0 | 0 Mbps |
| 10FD | 10 Mbps full duplex |
| 10HD | 10 Mbps half duplex |
| 100FD | 100 Mbps full duplex |
| 100HD | 100 Mbps half duplex |
| 1000FD | 1000 Mbps full duplex |
| AUTO | Auto negotiate |

2.23 Monitored type (montype) for Muxponder modules

Montype values supported on Muxponder modules are listed in the following tables:

- Gigabit Ethernet PMs. See [Table 2-3](#).
- SONET PMs, including SONET Path PMs and SONET Line PMs. See [Table 2-4](#).
- SDH PMs, including SDH Multiplex Section PMs and SDH High Order Path PMs. See [Table 2-5](#).
- Fibre Channel PMs. See [Table 2-6](#).
- OTN PMs. See [Table 2-7](#).
- BRI PMs. See [Table 2-8](#).

Table 2-3 Gigabit Ethernet PMs (counters) supported on Muxponder modules

| Description | GFP Mode | Supported modules |
|---|----------------|---|
| BCST Total Broadcast Frame Count in Receive Direction measures the total number of good frames received that were directed to the broadcast address. (This number does not include frames that were directed to the multicast address.) | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| CV (Layer 1) 8B/10B Coding Violations measures the number of 8B/10B coding violations. | GFP-F GFP-T | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| ES (Layer 1) Errored Seconds measures the number of seconds during which one or more errored blocks/code violations are detected, or LOSYNC (Loss of Synchronization) or LOS (Loss of Signal) is detected. | GFP-F GFP-T | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| FCSE-RX (Layer 2) Total Number of Received Frames with CRC (Cyclic Redundancy Check) Error measures the number of received frames that had a valid length but had either a bad Frame Check Sequence (FCS Error) or a bad FCS with a non-integral number of OCTETS (alignment errors). | GFP-F | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| FRDR (Layer 2) Total Number of Discarded Frames measures the total number of frames dropped due to a lack of resources or other reasons. This number is not necessarily the number of frames dropped, but rather the number of time that dropped frames could be detected. | GFP-F | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| FRGT Total Fragmented Frame Count in Receive Direction measures the total number of received frames that were less than 64 octets long (excluding framing bits, but including Frame Check Sequence (FCS) octets) and had either a bad | GFP-F | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |

Table 2-3 Gigabit Ethernet PMs (counters) supported on Muxponder modules (Continued)

| Description | GFP Mode | Supported modules |
|---|----------------|---|
| FCS with a integral number of octets (FCS error) or a bad FCS with a non-integral number of octets (alignment error). | | |
| MCST Total Multicast Frame Count in Receive Direction measures the total number of good frames received that were directed to a multicast address. (This number does not include frames that were directed to the broadcast address.) | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OSIZE Total Oversized Frame Count in Receive Direction measures the total number of received frames that were longer than 9600 octets (excluding framing bits, but including Frame Check Sequence (FCS) octets) and were otherwise well formed). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OVER1518 Total > = 1519 Byte Frame Count in Receive Direction Measures the total number of frames received that were greater than or equal to 1519 bytes in length (excluding framing bites, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SES (Layer 1) Severely Errored Seconds measures the number of seconds during which the number of detected coding violations exceeds the severely errored seconds level (SESLVL), or in which a Loss of Synchronization (LOSYNC) defect or Loss of Frame (LOF) defect is present. The SESLVL value for Layer 1 Gigabit Ethernet is 1250. | GFP-F GFP-T | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SIZE64 Total 64 Byte Frame Count in Receive Direction measures the total number of 64 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SIZE65-127 Total 65-127 Byte Frame Count in Receive Direction measures the total number of 65-127 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SIZE128-255 Total 128-255 Byte Frame Count in Receive Direction measures the total number of 128-255 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SIZE256-511 Total 256-511 Byte Frame Count in Receive Direction measures the total number of 256-511 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SIZE512-1023 | GFP-F | 8-Port Multiprotocol Muxponder |

Table 2-3 Gigabit Ethernet PMs (counters) supported on Muxponder modules (Continued)

| Description | GFP Mode | Supported modules |
|---|-----------------|---|
| Total 512-1023 Byte Frame Count in Receive Direction measures the total number of 512-1023 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | 10-Port Multiprotocol Muxponder |
| SIZE1024-1518 Total 1024-1518 Byte Frame Count in Receive Direction measures the total number of 1024-1518 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TBYC-RX Total Byte count in Receive Direction measures the total number of bytes of data (including those in bad frames) received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TBYC-TX Total Byte Count in Transmit Direction measures the total number of bytes of data (including those in bad frames) transmitted (excluding framing bits, but including Frame Check Sequence (FCS) octets). | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TFRC-RX (Layer 2) Total Frame Count in Receive Direction measures the total number of frames (bad frames, broadcast frames, and multicast frames) received. | GFP-F | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TFRC-TX (Layer 2) Total Frame Count in Transmit Direction measures the total number of frames (bad frames, broadcast frames, and multicast frames) transmitted. | GFP-F | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TPFC-RX Total Pause Frame Count in Receive Direction measures the total number of pause frames received. | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| TPFC-TX Total Pause Frame Count in Transmit Direction measures the total number of pause frames transmitted. | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| UAS Unavailable Seconds measures the number of seconds during which the link was considered unavailable. A link becomes unavailable at the onset of 10 consecutive seconds that qualify as SES, and continues to be unavailable until the onset of 10 consecutive seconds that do not qualify as SES. In seconds that are counted as unavailable, the counting of In seconds that are counted as unavailable, the counting of INVBLK, ES, and SES is inhibited. | GFP-F GFP-T | 2-Port GbE Muxponder 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| USIZE Undersized Frames measures the total number of frames received that were less than 64 octets long (excluding framing | GFP-F | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |

Table 2-3 Gigabit Ethernet PMs (counters) supported on Muxponder modules

| Description | GFP Mode | Supported modules |
|--|----------|-------------------|
| bits, but including Frame Check Sequence (FCS) octets) and were otherwise well formed. | | |

Table 2-4 SONET PMs (counters)

| PM (montype) | Supporting entities |
|--|--------------------------------------|
| CVS Section Coding Violations measures the number of B1 Bit Interleaved Parity (BIP) errors detected at the section layer. | OC3, OC12, OC48, OC192 |
| ESS Section Errored Seconds measures the number of seconds during which one or more B1 Bit Interleaved Parity (BIP) errors were detected or a Severely Errored Frame (SEF) or a Loss of Signal (LOS) defect was present. | OC3, OC12, OC48, OC192 |
| SEFS-S Section Severely Errored Framing Seconds measures the number of seconds during which a section SEF defect was present. | OC3, OC12, OC48, OC192 |
| SES-S Section Severely Errored Seconds measures number of seconds during which the number of detected B1 Bit Interleaved Parity (BIP) errors exceeds the severely errored seconds level (SESLVL), or a Severely Errored Frame (SEF) or a Loss of Signal (LOS) defect was present. The SESLVL value for SONET section level is as follows: <ul style="list-style-type: none"> • OC3 = 155 • OC12 = 616 • OC48 = 2392 • OC192 = 8554 | OC3, OC12, OC48, OC192 |
| UAS-S Section Unavailable Seconds measures the number of seconds during which the SONET section is unavailable. A second is considered UAS-S at the onset of 10 consecutive SESS seconds, and is no longer considered UAS-S after 10 consecutive seconds that are not SESS seconds. In seconds that are counted as unavailable, the counting of CVS, ESS, and SESS are inhibited. | OC3, OC12, OC48, OC192 |
| CV-L Line Coding Violations measures the number of B2 Bit Interleaved Parity (BIP) errors detected at the line layer. | OC3, OC12, OC48 ¹ , OC192 |
| ES-L Line Errored Seconds measures the number of seconds during which one or more B2 Bit Interleaved Parity (BIP) errors are detected, or a Line Alarm Indication Signal (AIS-L) defect is present. | OC3, OC12, OC48 ¹ , OC192 |
| SES-L Line Severely Errored Seconds measures the number of seconds during which the number of detected B2 Bit Interleaved Parity (BIP) errors exceeds the severely errored seconds level (SESLVL), or a Line Alarm Indication Signal (AIS-L) defect was present. The SESLVL value for SONET line level is as follows: | OC3, OC12, OC48 ¹ , OC192 |

Table 2-4 SONET PMs (counters) (Continued)

| PM (montype) | Supporting entities |
|---|--------------------------------------|
| <ul style="list-style-type: none"> • OC3 = 154 • OC12 = 615 • OC48 = 2459 • OC192 = 9835 | |
| UAS-L Line Unavailable Seconds measures the number of seconds during which the line is unavailable. A second is considered UAS-L at the onset of 10 consecutive SES-L seconds, and is no longer considered UAS-L after 10 consecutive seconds that are not SES-L seconds. In seconds that are counted as unavailable, the counting of CV-L, ES-L, and SES-L are inhibited. | OC3, OC12, OC48 ¹ , OC192 |
| CVP Path Coding Violation measures the number of B3 Bit Interleaved Parity (BIP) errors at the path layer. | STS-n/STS-nc |
| ESP Path Errored Seconds measures the number of seconds during which one or more B3 Bit Interleaved Parity (BIP) errors are detected, or a Path Alarm Indication Signal (AIS-P), Path Unequipped, or a Path Loss of Pointer (LOP-P) defect is present. | STS-n/STS-nc |
| FC-P Failure Count at Path Layer measures the number of transitions from a second in which a path failure defect is not detected to a second in which one or more failure defects are detected. The monitored PATH failure defects are: <ul style="list-style-type: none"> • Path Alarm Indication Signal (AIS-P) • Path Unequipped • Path Loss of Pointer (LOP-P) | STS-n/STS-nc |
| SES-P Path Severely Errored Seconds measures the number of seconds during which the number of detected B3 Bit Interleaved Parity (BIP) errors exceeds the severely errored seconds level (SESLVL), or a Path Alarm Indication Signal (AIS-P), Path Unequipped, or Path Loss of Pointer (LOP-P) defect was present. The SESLVL value for SONET path level is 2400. | STS-n/STS-nc |
| UAS-P Path Unavailable Seconds measures the number of seconds during which service at the path layer is unavailable. A second is considered unavailable at the onset of 10 consecutive seconds that are considered SESP, and is no longer unavailable after 10 seconds that are not SESP. In seconds that are counted as unavailable, the counting of CVP, ESP and SESP are inhibited. | STS-n/STS-nc |
| ¹ Supported on 8-Port and 10-Port Multiprotocol Muxponders only. | |

Note For information about SONET protocols supported on Muxponder modules, see *the Muxponder Solutions Guide*.

Table 2-5 SDH PMs (counters)

| PM (montype) | Supported entities |
|---|--|
| RS-EB Regenerator Section Errored Blocks measures the number of regenerator section errored blocks. An errored block is one that contains one or more (up to eight per block) B1 Bit Interleaved Parity (BIP) errors. | STM1, STM4, STM16, STM64 |
| RS-BBE Regenerator Section Background Block Errors measures the number of errored blocks not occurring during seconds counted as RS-SES seconds. | STM1, STM4, STM16, STM64 |
| RS-ES Regenerator Section Errored Seconds measures the number of seconds during which one or more errored blocks were detected or a Loss of Frame (LOF) or a Loss of Signal (LOS) defect was present. | STM1, STM4, STM16, STM64 |
| RS-OFS Regenerator Section out of Frame Seconds measures the number of seconds during which an Out of Frame (OOF) defect was present. | STM1, STM4, STM16, STM64 |
| RS-SES Regenerator Section Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a Loss of Frame (LOF) or Loss of Signal (LOS) defect was present. The SESLVL value for SDH regenerator section is 30% of the nominal block rate. | STM1, STM4, STM16, STM64 |
| RS-UAS Regenerator Section Unavailable Seconds measures the number of seconds during which the regenerator section is unavailable. A second is considered RS-UAS at the onset of 10 consecutive RS-SES seconds, and is no longer considered RS-UAS after 10 consecutive seconds that are not RS-SES seconds. In seconds that are counted as unavailable, the counting of RS-EB, RS-BBE, RS-ES, and RS-SES is inhibited. | STM1, STM4, STM16, STM64 |
| MS-EB Multiplex Section Errored Blocks measures the number of multiplex section errored blocks. An errored block is one that contains one or more (up to eight per block) B2 Bit Interleaved Parity (BIP) errors. | STM1, STM4, STM16 ¹ , STM64 |
| MS-BBE Multiplex Section Background Block Errors measures the number of errored blocks not occurring during seconds counted as MS-SES seconds. | STM1, STM4, STM16 ¹ , STM64 |
| MS-ES Multiplex Section Errored Seconds measures the number of seconds during which one or more errored blocks were detected or a Multiplex Section Alarm Indication Signal (MS-AIS) defect was present. | STM1, STM4, STM16 ¹ , STM64 |
| MS-SES Multiplex Section Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a Multiplex Section Alarm Indication Signal (MS-AIS) defect was present. The SESLVL value for SDH multiplex section is 30% of the nominal block rate. | STM1, STM4, STM16 ¹ , STM64 |
| MS-UAS | STM1, STM4, STM16 ¹ , STM64 |

Table 2-5 SDH PMs (counters) (Continued)

| PM (montype) | Supported entities |
|---|--|
| Multiplex Section Unavailable Seconds measures the number of seconds during which the multiplex section is unavailable. A second is considered MS-UAS at the onset of 10 consecutive MS-SES seconds, and is no longer considered MS-UAS after 10 consecutive seconds that are not MS-SES seconds. In seconds that are counted as unavailable, the counting of MS-EB, MS-BBE, MS-ES and MS-SES is inhibited. | |
| HP-EB High Order Path Errored Blocks measures the number of high order path errored blocks. An errored block is one that contains one or more (up to eight per block) B3 Bit Interleaved Parity (BIP) errors. | VC-n/VC-nc |
| HP-BBE High Order Path Background Block Errors measures the number of errored blocks not occurring during seconds counted as HP-SES seconds. | VC-n/VC-nc |
| HP-ES High Order Path Errored Seconds measures the number of seconds during which one or more errored blocks were detected, or a High Order Path Alarm Indication Signal (HP-AIS), High Order Path Unequipped, or High Order Path Loss of Pointer (HP-LOP) defect was present. | VC-n/VC-nc |
| HP-SES High Order Path Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a High Order Path Alarm Indication Signal (HP-AIS), High Order Path Unequipped, or High Order Path Loss of Pointer (HP-LOP) defect was present. The SESLVL value for SDH high order path is 2400. | VC-n/VC-nc |
| HP-UAS High Order Path Unavailable Seconds measures the number of seconds during which the high order path is unavailable. A second is considered HP-UAS at the onset of 10 consecutive HP-SES seconds, and is no longer considered HP-UAS after 10 consecutive seconds that are not HP-SES seconds. In seconds that are counted as unavailable, the counting of HP-EB, HP-BBE, HP-ES and HP-SES are inhibited. | VC-n/VC-nc |
| UAS-S Section Unavailable Seconds measures the number of seconds during which the SDH section is unavailable. A second is considered UAS-S at the onset of 10 consecutive SESS seconds, and is no longer considered UAS-S after 10 consecutive seconds that are not SESS seconds. In seconds that are counted as unavailable, the counting of CVS, ESS, and SESS are inhibited. | STM1, STM4, STM16 ¹ , STM64 |
| ¹ Supported on 8-Port and 10-Port Multiprotocol Muxponders only. | |

Note For information about SDH protocols supported on Muxponder modules, see *the Muxponder Solutions Guide*.

Table 2-6 Layer 1 Fibre Channel PMs (counters)

| PM (montype) | Supported modules |
|---------------------|--------------------------------|
| CV | 8-Port Multiprotocol Muxponder |

Table 2-6 Layer 1 Fibre Channel PMs (counters) (Continued)

| PM (montype) | Supported modules |
|---|---|
| 8B/10B Coding Violations measures the number of 8B/10B coding violations and disparity errors. | 10-Port Multiprotocol Muxponder |
| ES Errored Seconds measures the number of seconds during which one or more coding violations are detected, or a Loss of Synchronization (LOSYNC) or Loss of Signal (LOS) defect is present. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| SES Severely Errored Seconds measures the number of seconds during which the number of detected coding violations exceeds the severely errored seconds level (SESLVL), or a Loss of Synchronization (LOSYNC) defect or Loss of Signal (LOS) defect is present. The SESLVL value for Fiber Channel is 1250. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| UAS Unavailable Seconds measures the number of seconds during which the link was considered unavailable. A link becomes unavailable at the onset of 10 consecutive seconds that qualify as SES, and continues to be unavailable until the onset of 10 consecutive seconds that do not qualify as SES. In seconds that are counted as unavailable, the counting of In seconds that are counted as unavailable, the counting of INVBLK, ES, and SES is inhibited. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |

Table 2-7 OTN PMs (counters) supported on SONET/SDH line ports

| Description | Supported modules |
|--|---------------------------------|
| NUMBITSCR Number of Bits Corrected measures the total number of bits corrected by the Forward Error Correction (FEC) decoder according to the Reed-Solomon RS(255,239) forward error correction scheme. | 10-Port Multiprotocol Muxponder |
| NUMBYTESCR Number of Bytes Corrected measures the total number of bytes corrected by the forward error correction scheme. | 10-Port Multiprotocol Muxponder |
| UNCRCDWRD Number of Uncorrectable Code Words measures the total number of errored code words received that could not be corrected by the Forward Error Correction scheme. | 10-Port Multiprotocol Muxponder |
| BER Bit Error Ratio provides an estimate of the instantaneous Bit Error Ratio of the line by evaluating the ratio of the number of bits corrected to the total bits received over a 10-second time window. Both the instantaneous and average BER values are only valid for relatively low error rates in the signal. If the BER value is reported to be above 10^{-3} , it should be disregarded as it is not possible to accurately measure BER values above this level. BER values above this level usually indicate another problem, which should be evident in other PM counts. | 10-Port Multiprotocol Muxponder |
| BER-AVG Average Bit Error Ratio provides an estimate of the average Bit Error Ratio of the line by evaluating the ratio of the number of bits corrected to the total bits received over the duration of the entire collection interval. Both the instantaneous and average BER values are only valid for relatively low error | 10-Port Multiprotocol Muxponder |

Table 2-7 OTN PMs (counters) supported on SONET/SDH line ports (Continued)

| Description | Supported modules |
|--|---|
| rates in the signal. If the BER value is reported to be above 10^{-3} , it should be disregarded as it is not possible to accurately measure BER values above this level. BER values above this level usually indicate another problem, which should be evident in other PM counts. | |
| OTU-BBE OTU-2 Background Block Error measures the number of errored blocks not occurring during seconds counted as OTU-SES seconds. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OTU-EB OTU-2 Errored Blocks measures the number of frames containing one or more Bit Interleaved Parity (BIP) errors, using the OTU-2 SM BIP-8 byte in the incoming OTN signal. Up to eight BIP-8 errors can be detected per OTU-2 frame. However, regardless of the number of BIP-8 errors detected, a single frame can count for no more than one errored block. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OTU-ES OTU-2 Errored Seconds measures the number of seconds during which one or more errored blocks was detected or a Loss of Frame (LOF) or a Loss of Signal (LOS) defect was present. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OTU-SES OTU-2 Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a Loss of Frame (LOF) or Loss of Signal (LOS) defect was present. The SESLVL value for OTN is 30% of the nominal block rate. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OTU-OFS OTU-2 Out of Frame Seconds measures the number of seconds during which a Out of Frame (OOF) defect was present. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |
| OTU-UAS OTU-2 Unavailable Seconds measures the number of seconds during which the OTN line is unavailable. A second is considered OTU-UAS at the onset of 10 consecutive OTU-SES seconds, and is no longer considered OTU-UAS after 10 consecutive seconds that are not OTU-SES seconds. | 8-Port Multiprotocol Muxponder 10-Port Multiprotocol Muxponder |

Table 2-8 BRI PMs (gauges)

| PM (montype) | Supported modules |
|--|--------------------------------|
| LBC Laser Bias Current measures the laser bias current (mA) of the transceiver. | 8-Port Multiprotocol Muxponder |
| OPR Optical Power Received measures the optical power (dBm) received by the transceiver. Measurements are accurate to ± 3.0 dBm. | 8-Port Multiprotocol Muxponder |
| OPT Optical Power Transmitted measures the optical power (dBm) transmitted by the transceiver. Measurements are accurate to ± 3.0 dBm. | 8-Port Multiprotocol Muxponder |
| SUPPLY | 8-Port Multiprotocol Muxponder |

Table 2-8 BRI PMs (gauges) (Continued)

| PM (montype) | Supported modules |
|--|-----------------------------------|
| Supply Voltage measures the supply voltage on the 3.3V supply. | |
| TEMP Temperature measures the temperature (°C) of the transceiver. | 8-Port Multiprotocol Muxponder |

2.24 Monitored type (montype) for Optical Amplifiers

Table 2-9 Optical Amplifier PMs (gauges)

| PM (montype) | Supported modules |
|--|---|
| ALL | All |
| CTEMP Case Temperature measures the amplifier's case temperature in degrees Celsius | OBA OPA OLA OLAM SBA SPA |
| EFFGAIN Effective Gain measures the amplifier's effective gain level in dB | All |
| Note The EFFGAIN is compensated for amplified spontaneous emissions (ASE). | |
| L1CUR Laser One Current measures the amplifier's laser number one current in milliamperes | OLA OLAM |
| L1PWR Laser One Power measures the amplifier's laser one's power in milliwatts | OLA OLAM |
| L1TEMP Laser One Temperature measures the amplifier's laser one's temperature in degrees Celsius | OLA OLAM |
| L2CUR Laser Two Current measures the amplifier's laser two's current in milliamperes | OBA OPA OLA OLAM SBA SPA |
| L2PWR Laser Two Power measures the amplifier's laser two's power in milliwatts | OBA OPA OLA OLAM SBA SPA |
| L2TEMP Laser Two Temperature measures the amplifier's laser two's temperature in degrees Celsius | OBA OPA OLA OLAM SBA SPA |

Table 2-9 Optical Amplifier PMs (gauges) (Continued)

| PM (montype) | Supported modules |
|--|-------------------|
| OBR Optical Backreflection measures the amplifier's optical backreflection level in dB | All |
| OPR Optical Power Received measures the amplifier's optical power received level in dBm | All |
| OPR-MIN Optical Power Received Minimum measures the amplifier's minimum optical power received level in dBm | LGA MGA MGM |
| OPR-MAX Optical Power Received Maximum measures the amplifier's maximum optical power received level in dBm | LGA MGA MGM |
| OPR-AVG Optical Power Received Average measures the amplifier's average optical power received level in dBm | LGA MGA MGM |
| OPT Optical Power Transmitted measures the amplifier's optical power transmitted level in dBm | All |
| OPT-MIN Optical Power Transmitted Minimum measures the amplifier's minimum optical power transmitted level in dBm | LGA MGA MGM |
| OPT-MAX Optical Power Transmitted Maximum measures the amplifier's maximum optical power transmitted level in dBm | LGA MGA MGM |
| OPT-AVG Optical Power Transmitted Average measures the amplifier's average optical power transmitted level in dBm | LGA MGA MGM |
| FSOOPT First-stage output optical power transmitted measures the amplifier's first-stage output optical power transmitted level in dBm | OLAM MGM |
| SSIOPR Second-Stage Input Optical Power Received measures the amplifier's second-stage input optical power received level in dBm | OLAM MGM |
| MSLOSS Mid-stage insertion loss measures the amplifier's mid-stage insertion loss in dB | OLAM MGM |
| VOAATN Variable Optical Attenuator Attenuation measures the amplifier's variable optical attenuator's attenuation level in dB | OLA OLAM |
| TILT-ACH Tilt Achieved measures the amount of tilt that has been achieved | LGA MGA MGM |

2.25 Monitored type (montype) for transceivers

Table 2-10 Physical PMs (gauges)

| PM (montype) | Supported transceivers |
|---|----------------------------|
| Optical Power Received (OPR MIN, OPR MAX, OPR AVG) Optical Power Received measures the minimum, maximum, and average optical power (dBm) received. Measurements are accurate to ± 3.0 dBm for SFPs; to ± 2.0 dBm for XFPs. | Noncopper SFPs All XFPs |
| Optical Power Transmitted (OPT MIN, OPT MAX, OPT AVG) Optical Power Transmitted measures the minimum, maximum, and average optical power (dBm) transmitted. Measurements are accurate to ± 3.0 dBm for SFPs; to ± 2.0 dBm for XFPs. | Noncopper SFPs All XFPs |
| Supply Voltage (montype: SUPPLY) Supply Voltage measures the supply voltage on the 3.3V supply for SFPs; on the 5.0V supply for XFPs. This PM is not supported on all XFPs and the PM line will contain "NA" instead of "CMPL" or "PRTL". | Noncopper SFPs All XFPs |
| Supply Voltage 2 (montype: SUPPLY) Supply Voltage 2 measures the supply voltage on the 3.3V supply. This PM is not supported on all XFPs and the PM line will contain "NA" instead of "CMPL" or "PRTL". | All XFPs |
| Temperature (montype: TEMP) Temperature measures the temperature ($^{\circ}\text{C}$) of the transceiver. | All SFPs All XFPs |
| Tx Bias current Laser Bias Current measures the laser bias current (mA). | Noncopper SFPs All XFPs |

2.26 Monitored type (montype) values and threshold crossing alerts (TCA) for Transponder modules

The following tables describe the protocol Performance Monitoring (PM) types (montype), and list the threshold values that trigger a threshold crossing alert (TCA) on Transponder modules. TCAs are autonomously reported events that signal to the management system that a PM parameter value is reached or exceeds the configured threshold:

- Layer 1 Gigabit Ethernet PMs. See [Table 2-11](#).
- 10GELAN PMs. See [Table 2-12](#).
- SONET PMs. See [Table 2-13](#).
- SDH PMs. See [Table 2-14](#).
- Layer 1 Fibre Channel PMs. See [Table 2-15](#).
- OTN PMs. See [Table 2-16](#).

Table 2-11 Layer 1 Gigabit Ethernet PMs (counters)

| PM (montype) | PM threshold default values | | Supported modules |
|---|-----------------------------|-------|--|
| | 15-minute | 1-day | |
| CV 8B/10B Coding Violations measure the number of 8B/10B coding violations and disparity errors. | 382 | 3820 | Dual 4G Multiprotocol Transponder 2.5G Wavelength Manager |
| ES Errored Seconds measures the number of seconds during which one or more coding violations are detected, or a Loss of Synchronization (LOSYNC) or Loss of Signal (LOS) defect is present. | 25 | 250 | Dual 4G Multiprotocol Transponder 2.5G Wavelength Manager |
| SES Severely Errored Seconds measures the number of seconds during which the number of detected coding violations exceeds the severely errored seconds level (SESLVL), or a Loss of Synchronization (LOSYNC) defect or Loss of Signal (LOS) defect is present. The SESLVL value for Layer 1 Gigabit Ethernet is 1250. | 4 | 40 | Dual 4G Multiprotocol Transponder 2.5G Wavelength Manager |
| UAS Unavailable Seconds measures the number of seconds during which the link was considered unavailable. A link becomes unavailable at the onset of 10 consecutive seconds that qualify as SES, and continues to be unavailable until the onset of 10 consecutive seconds that do not qualify as SES. In seconds that are counted as unavailable, the counting of CV, ES, and SES is inhibited. | 10 | 10 | Dual 4G Multiprotocol Transponder 2.5G Wavelength Manager |

Table 2-12 10GELAN PMs (counters)

| PM (montype) | PM threshold default values | | Supported modules |
|--|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| INVBLK Invalid Blocks measures the number of invalid 64/66B coding blocks. | 382 | 3820 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| ES Errored Seconds measures the number of seconds during which one or more errored blocks/code violations are detected, or LOSYNC (Loss of Synchronization) or LOS (Loss of Signal) is detected. | 25 | 250 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SES Severely Errored Seconds measures the number of detected invalid blocks exceeds the severely errored seconds level (SESLVL), or in which a Loss of Synchronization (LOSYNC) defect or Loss of Frame (LOF) defect is present. The SESLVL value for 10GELAN is 8554. | 4 | 40 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| UAS Unavailable Seconds measures the number of seconds during which the link was considered unavailable. A link becomes unavailable at the onset of 10 consecutive seconds that qualify as SES, and continues to be unavailable until the onset of 10 consecutive seconds that do not qualify as SES. In seconds that are counted as unavailable, the counting of In seconds that are counted as unavailable, the counting of INVBLK, ES, and SES is inhibited | 10 | 10 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| FCSE-RX Total number of received frames with CRC (Cyclic Redundancy Check) errors measures the number of received frames that had a valid length but had either a bad Frame Check Sequence (FCS Error) or a bad FCS with a non-integral number of OCTETS (alignment errors). | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| FRDR Total number of discarded frames measures the total number of frames dropped due to a lack of resources or other reasons. This number is not necessarily the number of frames dropped, but rather the number of time that dropped frames could be detected. | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| FRGT Total fragmented Frame Count in Receive Direction measures the total number of received frames that were less than 64 octets long (excluding framing bits, but including Frame Check Sequence (FCS) octets) and had either a bad FCS with a | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |

Table 2-12 10GELAN PMs (counters) (Continued)

| PM (montype) | PM threshold default values | | Supported modules |
|--|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| integral number of octets (FCS error) or a bad FCS with a non-integral number of octets (alignment error). | | | |
| JABR Total Jabber Frame Count in Receive Direction measures the total number of received frames that were longer than the maximum frame size ¹ (excluding framing bits, but including Frame Check Sequence (FCS) octets), and had either a bad FCS with an integral number of octets (FCS error) or a bad FCS with a non-integral number of octets (alignment error). | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| BCST Total Broadcast Frame Count in Receive Direction measures the total number of good frames received that were directed to the broadcast address. (This number does not include frames that were directed to the multicast address.) | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| MCST Total multicast Frame Count in Receive Direction measures the total number of good frames received that were directed to a multicast address. (This number does not include frames that were directed to the broadcast address.) | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OSIZE Total oversized Frame Count in Receive Direction measures the total number of received frames that were greater than the maximum frame size ¹ in length (excluding framing bits, but including Frame Check Sequence (FCS) octets) but were otherwise well formed. | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OVER1518 Total over-1518 Frame Count in Receive Direction measures the total number of frames received that were greater than 1518 bytes but not exceeding the maximum frame size ¹ in length (excluding framing bits, but including Frame Check Sequence (FCS) octets). | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SIZE64 Total 64 Byte Frame Count in Receive Direction measures the total number of 64 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SIZE65-127 Total 65-127 Byte Frame Count in Receive Direction measures the total number of 65-127 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SIZE128-255 | | | Dual 10G Multiprotocol Transponder |

Table 2-12 10GELAN PMs (counters) (Continued)

| PM (montype) | PM threshold default values | | Supported modules |
|---|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| Total 128-255 Byte Frame Count in Receive Direction measures the total number of 128-255 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | 10G Multiprotocol Transponder |
| SIZE256-511 Total 256-511 Byte Frame Count in Receive Direction measures the total number of 256-511 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SIZE512-1023 Total 512-1023 Byte Frame Count in Receive Direction measures the total number of 512-1023 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SIZE1024-1518 Total 1024-1518 Byte Frame Count in Receive Direction measures the total number of 1024-1518 byte frames received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| TBYC-RX Total Byte Count in Receive Direction measures the total number of bytes of data (including those in bad frames) received (excluding framing bits, but including Frame Check Sequence (FCS) octets). | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| TFRC-RX Total Frame Count in Receive Direction measures the total number of frames (bad frames, broadcast frames, and multicast frames) received. | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| USIZE Undersized Frames measures the total number of frames received that were less than 64 octets long (excluding framing bits, but including Frame Check Sequence (FCS) octets) and were otherwise well formed. | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |

¹The maximum frame size on the BT7A49AA and BT7A49AB modules is fixed at 9600 bytes. The maximum frame size on the BT7A49AA-I02 module is fixed at 10200 bytes.

Table 2-13 SONET PMs (counters)

| PM (montype) | PM threshold default values | | Supporting entities |
|---|-----------------------------|-------|------------------------|
| | 15-minute | 1-day | |
| CVS Section Coding Violations measures the number of B1 Bit Interleaved Parity (BIP) errors detected at the section layer. | 382 | 3820 | OC3, OC12, OC48, OC192 |
| ESS Section Errored Seconds measures the number of seconds during which one or more B1 Bit Interleaved Parity (BIP) errors were detected or a Severely Errored Frame (SEF) or a Loss of Signal (LOS) defect was present. | 25 | 250 | OC3, OC12, OC48, OC192 |
| SEFS-S Section Severely Errored Framing Seconds measures the number of seconds during which a section SEF defect was present. | 2 | 8 | OC3, OC12, OC48, OC192 |
| SESS Section Severely Errored Seconds measures number of seconds during which the number of detected B1 Bit Interleaved Parity (BIP) errors exceeds the severely errored seconds level (SESLVL), or a Severely Errored Frame (SEF) or a Loss of Signal (LOS) defect was present. The SESLVL value for SONET section level is as follows: <ul style="list-style-type: none"> • OC3 = 155 • OC12 = 616 • OC48 = 2392 • OC192 = 8554 | 4 | 40 | OC3, OC12, OC48, OC192 |
| UAS-S Section Unavailable Seconds measures the number of seconds during which the SONET section is unavailable. A second is considered UAS-S at the onset of 10 consecutive SESS seconds, and is no longer considered UAS-S after 10 consecutive seconds that are not SESS seconds. In seconds that are counted as unavailable, the counting of CVS, ESS and SESS are inhibited. | 10 | 10 | OC3, OC12, OC48, OC192 |

Note For information about SONET protocols supported on Transponder modules, see the *Transponder Solutions Guide*.

Table 2-14 SDH PMs (counters)

| PM (montype) | PM threshold default values | | Supported entities |
|--------------|-----------------------------|-------|--------------------|
| | 15-minute | 1-day | |
| RS-EB | 0 | 0 | STM16, STM64 |

Table 2-14 SDH PMs (counters) (Continued)

| PM (montype) | PM threshold default values | | Supported entities |
|--|--|-------|--------------------|
| | 15-minute | 1-day | |
| Regenerator Section Errored Blocks measures the number of regenerator section errored blocks. An errored block is one that contains one or more (up to eight per block) B1 Bit Interleaved Parity (BIP) errors. | | | |
| RS-BBE | 382 | 3820 | STM16, STM64 |
| Regenerator Section Background Block Errors measures the number of errored blocks not occurring during seconds counted as RS-SES seconds. | | | |
| RS-ES | 25 | 250 | STM16, STM64 |
| Regenerator Section Errored Seconds measures the number of seconds during which one or more errored blocks were detected or a Loss of Frame (LOF) or a Loss of Signal (LOS) defect was present. | | | |
| RS-OFS | 2 | 8 | STM16, STM64 |
| Regenerator Section out of Frame Seconds measures the number of seconds during which an Out of Frame (OOF) defect was present. | | | |
| RS-SES | 4 | 40 | STM16, STM64 |
| Regenerator Section Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a Loss of Frame (LOF) or Loss of Signal (LOS) defect was present. The SESLVL value for SDH regenerator section is 30% of the nominal block rate. | | | |
| RS-UAS | 10 | 10 | STM16, STM64 |
| Regenerator Section Unavailable Seconds measures the number of seconds during which the regenerator section is unavailable. A second is considered RS-UAS at the onset of 10 consecutive RS-SES seconds, and is no longer considered RS-UAS after 10 consecutive seconds that are not RS-SES seconds. In seconds that are counted as unavailable, the counting of RS-EB, RS-BBE, RS-ES, and RS-SES is inhibited. | | | |
| Note | For information about SDH protocols supported on Transponder modules, see the <i>Transponder Solutions Guide</i> . | | |

Table 2-15 Layer 1 Fibre Channel PMs (counters)

| PM (montype) | PM threshold default values | | Supported modules |
|--|-----------------------------|-------|--|
| | 15-minute | 1-day | |
| CV 8B/10B Coding Violations measures the number of 8B/10B coding violations and disparity errors. | 382 | 3820 | Dual 4G Multiprotocol Transponder |
| INVBLK Invalid Blocks measures the number of invalid 64/66B coding blocks. | 382 | 3820 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| ES Errored Seconds measures the number of seconds during which one or more coding violations are detected, or a Loss of Synchronization (LOSYNC) or Loss of Signal (LOS) defect is present. | 25 | 250 | Dual 4G Multiprotocol Transponder Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| SES Severely Errored Seconds measures the number of seconds during which the number of detected coding violations exceeds the severely errored seconds level (SESLVL), or a Loss of Synchronization (LOSYNC) defect or Loss of Signal (LOS) defect is present. The SESLVL value for Fiber Channel is 1250. | 4 | 40 | Dual 4G Multiprotocol Transponder Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| UAS Unavailable Seconds measures the number of seconds during which the link was considered unavailable. A link becomes unavailable at the onset of 10 consecutive seconds that qualify as SES, and continues to be unavailable until the onset of 10 consecutive seconds that do not qualify as SES. | 10 | 10 | Dual 4G Multiprotocol Transponder Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |

Table 2-16 OTN PMs (counters) supported on SONET/SDH line protocols

| PM (montype) | PM threshold default values | | Supported modules |
|---|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| NUMBITSCR Number of Bits Corrected measures the total number of bits corrected by the Forward Error Correction (FEC) decoder according to the Reed-Solomon RS(255,239) forward error correction scheme. | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| NUMBYTESCR Number of Bytes Corrected measures the total number of bytes corrected by the forward error correction scheme. | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |

Table 2-16 OTN PMs (counters) supported on SONET/SDH line protocols (Continued)

| PM (montype) | PM threshold default values | | Supported modules |
|--|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| Note | | | |
| Not supported on line protocols OC192EFEC and STM64EFEC. | | | |
| UNCRCDWRD | 10 | 100 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| Number of Uncorrectable Code Words measures the total number of errored code words received that could not be corrected by the Forward Error Correction scheme. | | | |
| BER | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| Bit Error Ratio provides an estimate of the instantaneous Bit Error Ratio of the line by evaluating the ratio of the number of bits corrected to the total bits received over a 10-second time window. Both the instantaneous and average BER values are only valid for relatively low error rates in the signal. If the BER value is reported to be above 10 ⁻³ , it should be disregarded as it is not possible to accurately measure BER values above this level. BER values above this level usually indicate another problem, which should be evident in other PM counts. | | | |
| BER-AVG | | | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| Average Bit Error Ratio provides an estimate of the average Bit Error Ratio of the line by evaluating the ratio of the number of bits corrected to the total bits received over the duration of the entire collection interval. Both the instantaneous and average BER values are only valid for relatively low error rates in the signal. If the BER value is reported to be above 10 ⁻³ , it should be disregarded as it is not possible to accurately measure BER values above this level. BER values above this level usually indicate another problem, which should be evident in other PM counts. | | | |
| OTU-BBE | 382 | 3820 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OTU-2 Background Block Error measures the number of errored blocks not occurring during seconds counted as OTU-SES seconds. | | | |
| OTU-EB | 0 | 0 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OTU-2 Errored Blocks measures the number of frames containing one or more Bit Interleaved Parity (BIP) errors, using the OTU-2 SM BIP-8 byte in the incoming OTN signal. Up to eight BIP-8 errors can be detected per OTU-2 frame. However, regardless of the number of BIP-8 errors detected, a single frame can count for no more than one errored block. | | | |
| Note | | | |
| EB counting is suspended when either one of the following faults is active on the port: Loss of Signal, Loss of Frame. | | | |

Table 2-16 OTN PMs (counters) supported on SONET/SDH line protocols (Continued)

| PM (montype) | PM threshold default values | | Supported modules |
|---|-----------------------------|-----------|---|
| | 15-minute bin | 1-day bin | |
| OTU-ES OTU-2 Errored Seconds measures the number of seconds during which one or more errored blocks is detected or a Loss of Frame (LOF), Loss of Signal (LOS), or Trace Identifier Mismatch (TIM) defect is present. | 25 | 250 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OTU-SES OTU-2 Severely Errored Seconds measures the number of seconds during which the number of detected errored blocks exceeds the severely errored seconds level (SESLVL), or a Loss of Frame (LOF), Loss of Signal (LOS), or Trace Identifier Mismatch (TIM) defect was present. The SESLVL value for OTN is 30% of the nominal block rate. | 4 | 40 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OTU-OFS OTU-2 Out of Frame Seconds measures the number of seconds during which a Out of Frame (OOF) defect was present. | 2 | 8 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |
| OTU-UAS OTU-2 Unavailable Seconds measures the number of seconds during which the OTN line is unavailable. A second is considered OTU-UAS at the onset of 10 consecutive OTU-SES seconds, and is no longer considered OTU-UAS after 10 consecutive seconds that are not OTU-SES seconds. | 10 | 10 | Dual 10G Multiprotocol Transponder 10G Multiprotocol Transponder |

2.27 Neighbor state (state)

| Value | Meaning |
|----------|---|
| ATTEMPT | State that is only valid for neighbors attached to non-broadcast networks. It indicates that no recent information has been received from the neighbor, but that a more concerted effort should be made to contact the neighbor. |
| DOWN | Initial state of a neighbor conversation. It indicates that there has been no recent information received from the neighbor. |
| EXCHANGE | Router is describing its entire link state database by sending Database Description packets to the neighbor |
| EXSTART | Exchange start state that is the first step in creating an adjacency between two neighboring routers |
| FULL | State in which the neighboring routers are fully adjacent. These adjacencies appear in router links and network link advertisements. |
| INIT | Indicates that a Hello packet has recently been seen from the neighbor. However, bidirectional communication is not yet established with the neighbor (that is, the router itself did not appear in the neighbor's Hello packet). |
| LOADING | State that sends Link State Request packets to the neighbor asking for the more recent advertisements that have been discovered (but not yet received) in the Exchange state. |
| TWOWAY | Indicates that communication between the two routers is bidirectional |

2.28 Notification code (ntfcncde)

| Value | Meaning |
|-------|----------------------|
| CL | Condition is cleared |
| CR | Critical alarm |
| MJ | Major alarm |
| MN | Minor alarm |
| NA | Not alarmed |
| NR | Not reported |

2.29 Optical power received high threshold (oprht)

| Amplifier | Range | Default |
|-----------|-----------|---------|
| OPA | -35 to 0 | 0 |
| OBA | -15 to 11 | 11 |
| OLA | -28 to 1 | -4 |
| OLAM | -28 to -4 | -4 |
| SBA | -15 to 10 | 10 |
| SPA | -35 to -9 | -9 |
| LGA | -18 to 10 | 10 |
| MGA | -30 to 0 | 0 |
| MGM | -33 to -1 | -1 |

2.30 Optical power received low threshold (oprlt)

| Amplifier | Range | Default |
|-----------|------------|---------|
| OPA | -38 to -10 | -36 |
| OBA | -18 to 10 | -16 |
| OLA | -31 to -5 | -29 |
| OLAM | -31 to -5 | -29 |
| SBA | -18 to 9 | 16 |
| SPA | -38 to -10 | -36 |
| LGA | -26 to 7 | -21 |
| MGA | -38 to -3 | -33 |
| MGM | -42 to -4 | -36 |

2.31 Optical power transmitted high threshold (optht)

| Amplifier | Range | Default |
|-----------|----------|---------|
| OPA | -8 to 11 | 11 |
| OBA | -5 to 21 | 21 |
| OLA | -7 to 17 | 17 |
| OLAM | -5 to 19 | 19 |
| SBA | 3 to 19 | 19 |
| SPA | -8 to 8 | 8 |
| LGA | -2 to 20 | 20 |
| MGA | -4 to 16 | 16 |
| MGM | -4 to 18 | 18 |

2.32 Optical power transmitted low threshold (optlt)

| Amplifier | Range | Default |
|-----------|-----------|---------|
| OPA | -11 to 10 | -9 |
| OBA | -8 to 20 | -6 |
| OLA | -10 to 16 | -8 |
| OLAM | -8 to 18 | -6 |
| SBA | 0 to 18 | 2 |
| SPA | -11 to 7 | -9 |
| LGA | -5 to 17 | -5 |
| MGA | -7 to 13 | -7 |
| MGM | -7 to 15 | -7 |

2.33 OSPF interface state type (OSPFIfStateType)

| Value | Meaning |
|--------------------------|--|
| BACKUP_DESIGNATED_ROUTER | Indicates that the router itself is the Backup Designated Router on the attached network. It is promoted to Designated Router when the present Designated Router fails. The router establishes adjacencies to all other routers attached to the network. |
| DESIGNATED_ROUTER | Indicates that the router itself is the Designated Router on the attached network. Adjacencies are established to all other routers attached to the network. The router must also originate a network links advertisement for the network node. The advertisement contains links to all routers (including the Designated Router itself) attached to the network. |
| DOWN | Initial interface state. In this state, the lower-level protocols have indicated that the interface is not usable. No protocol traffic at all is sent or received on such an interface. In this state, interface parameters are set to their initial values. All interface timers are disabled, and there are no adjacencies associated with the interface. |
| LOOPBACK | Indicates that the router's interface to the network is looped back. The interface is unavailable for regular data traffic. However, it may still be desirable to gain information on the quality of this interface, either through sending ICMP pings to the interface or through a bit error test. For this reason, IP packets can still be addressed to an interface in Loopback state. |
| OTHER_DESIGNATED_ROUTER | Indicates that the interface is to a multi-access network on which another router is the Designated Router. In this state, the router itself has not been selected as the Backup Designated Router either. The router forms adjacencies to both the Designated Router and the Backup Designated Router (if they exist). |
| POINT_TO_POINT | Indicates that the interface is operational, and connects either to a physical point-to-point network or to a virtual link. Upon entering this state, the router attempts to form an adjacency with the neighboring router. |
| WAITING | Indicates that the router is trying to determine the identity of the (Backup) Designated Router for the network. To do this, the router monitors the Hello Packets it receives. The router is not allowed to elect a Backup Designated Router nor a Designated Router until it transitions out of Waiting state. This prevents unnecessary changes of the (Backup) Designated Router. |

2.34 OSPF interface type (OSPFIfType)

| Value | Meaning |
|----------------------|--|
| BROADCAST | Interface type used by Broadcast LANs, such as Ethernet and IEEE 802.5 |
| NBMA | Non-Broadcast Multiaccess (NBMA) interface type used by networks that have no broadcast capability. Commonly, networks of this sort use frame relay, ATM, or X.25. |
| POINT_TO_MULTIPPOINT | Interface type used by links that are definitively point-to-multipoint |
| POINT_TO_POINT | Interface type used by links that are definitively point-to-point |

2.35 OSPF redistribution type (OSPFRedist)

| Value | Meaning |
|-----------|---|
| ALL | Redistribute connected, static and default routes |
| CONN | Redistribute connected networks |
| NONE | Disable redistribution |
| ORIG | Redistribute default routes |
| ORIG_CONN | Redistribute connected and default routes |
| ORIG_STAT | Redistribute static and default routes |
| STAT | Redistribute static routes |
| STAT_CONN | Redistribute static and connected routes |

2.36 Port AID (aid) for passive modules

| Equipment type | AID |
|---------------------|--|
| C1ADM Line | C1ADM-(1,11,21,31)-(1-20)-(1-2) |
| C1ADM Pass Through | C1ADM-(1,11,21,31)-(1-20)-(1-2)-P |
| C1ADM Channel | C1ADM-(1,11,21,31)-(1-20)-(1-2)-(1-16) |
| C2ADM Line | C2ADM-(1,11,21,31)-(1-20)-1 |
| C2ADM Pass Through | C2ADM-(1,11,21,31)-(1-20)-1-P |
| C2ADM Channel | C2ADM-(1,11,21,31)-(1-20)-1-(1-16) |
| C4MD Line | C4MD-(1,11,21,31)-(1-20)-1 |
| C4MD Expansion Port | C4MD-(1,11,21,31)-(1-20)-1-E |
| C4MD Channel | C4MD-(1,11,21,31)-(1-20)-1-(1-16) |
| CDSC Line | CDSC-(1,11,21,31)-(1-20)-1 |
| CDSC Channels | CDSC-(1,11,21,31)-(1-20)-1-C |
| CDSC Channels | CDSC-(1,11,21,31)-(1-20)-1-D |
| CS Line | CS-(1,11,21,31)-(1-20)-(1,2) |
| CS DWDM Port | CS-(1,11,21,31)-(1-20)-(1,2)-(1-9) |
| CS Channel | CS-(1,11,21,31)-(1-20)-(1,2)-D |
| D1ADM Line | D1ADM-(1,11,21,31)-(1-20)-1 |
| D1ADM Port | D1ADM-(1,11,21,31)-(1-20)-1-P |
| D1ADM Channel | D1ADM-(1,11,21,31)-(1-20)-1-(1-32) |
| D2ADM Line | D2ADM-(1,11,21,31)-(1-20)-1 |
| D2ADM Port | D3ADM-(1,11,21,31)-(1-20)-1-P |
| D2ADM Channel | D2ADM-(1,11,21,31)-(1-20)-1-(1-32) |
| D4ADM Line | D4ADM-(1,11,21,31)-(1-20)-1 |
| D4ADM Port | D4ADM-(1,11,21,31)-(1-20)-1-P |
| D2ADM Channel | D4ADM-(1,11,21,31)-(1-20)-1-(1-32) |
| D32MD1 Line | D32MD1-(1,11,21,31)-(1,3,5...19)-1 |
| D32MD1 Upgrade | D32MD1-(1,11,21,31)-(1,3,5...19)-1-E |
| D32MD1 Channel | D32MD1-(1,11,21,31)-(1,3,5...19)-1-(1-8) |
| D32MD2 Line | D32MD2-(1,11,21,31)-(1,3,5...19)-1 |
| D32MD2 Upgrade | D32MD2-(1,11,21,31)-(1,3,5...19)-1-E |
| D32MD2 Channel | D32MD2-(1,11,21,31)-(1,3,5...19)-1-(9-16) |
| D32MD3 Line | D32MD3-(1,11,21,31)-(1,3,5...19)-1 |
| D32MD3 Upgrade | D32MD3-(1,11,21,31)-(1,3,5...19)-1-E |
| D32MD3 Channel | D32MD3-(1,11,21,31)-(1,3,5...19)-1-(17-24) |
| D32MD4 Line | D32MD4-(1,11,21,31)-(1,3,5...19)-1 |
| D32MD4 Upgrade | D32MD4-(1,11,21,31)-(1,3,5...19)-1-E |
| D32MD4 Channel | D32MD4-(1,11,21,31)-(1,3,5...19)-1-(25-32) |

| Equipment type | AID |
|----------------|-----------------------------------|
| D4MD Line | D4MD-(1,11,21,31)-(1-20)-1 |
| D4MD Channel | D4MD-(1,11,21,31)-(1-20)-1-(1-32) |
| SMF 20 Channel | SMF20-(1,11,21,31)-(1-20)-(1-32) |
| SMF 40 Port | SMF40-(1,11,21,31)-(1-20)-1 |
| SMF 40 Channel | SMF40-(1,11,21,31)-(1-20)-(1-32) |
| SMF 60 Port | SMF60-(1,11,21,31)-(1-20)-1 |
| SMF 60 Channel | SMF60-(1,11,21,31)-(1-20)-(1-32) |
| SMF 80 Port | SMF80-(1,11,21,31)-(1-20)-1 |
| SMF 80 Channel | SMF80-(1,11,21,31)-(1-20)-(1-32) |

2.37 Port channel (PortChannel)

Note Channel numbers correspond to the International Telecommunications Union (ITU) grid frequency plan.

| Value | Meaning |
|---------|-----------------|
| 1271 | CWDM channel 16 |
| 1291 | CWDM channel 15 |
| 1311 | CWDM channel 14 |
| 1331 | CWDM channel 13 |
| 1351 | CWDM channel 12 |
| 1371 | CWDM channel 11 |
| 1431 | CWDM channel 10 |
| 1451 | CWDM channel 9 |
| 1471 | CWDM channel 8 |
| 1491 | CWDM channel 7 |
| 1511 | CWDM channel 6 |
| 1530.33 | DWDM channel 32 |
| 1531 | CWDM channel 5 |
| 1531.12 | DWDM channel 31 |
| 1531.90 | DWDM channel 30 |
| 1532.68 | DWDM channel 29 |
| 1533.47 | DWDM channel 28 |
| 1534.25 | DWDM channel 27 |
| 1535.04 | DWDM channel 26 |
| 1535.82 | DWDM channel 25 |
| 1536.61 | DWDM channel 24 |
| 1538.19 | DWDM channel 23 |
| 1538.98 | DWDM channel 22 |
| 1539.77 | DWDM channel 21 |
| 1540.56 | DWDM channel 20 |
| 1541.35 | DWDM channel 19 |
| 1542.14 | DWDM channel 18 |
| 1542.94 | DWDM channel 17 |
| 1543.73 | DWDM channel 16 |
| 1544.53 | DWDM channel 15 |
| 1546.12 | DWDM channel 14 |
| 1546.92 | DWDM channel 13 |
| 1547.72 | DWDM channel 12 |

| Value | Meaning |
|---------|-----------------|
| 1548.51 | DWDM channel 13 |
| 1549.32 | DWDM channel 12 |
| 1550.12 | DWDM channel 11 |
| 1550.92 | DWDM channel 10 |
| 1551 | CWDM channel 4 |
| 1551.72 | DWDM channel 9 |
| 1552.52 | DWDM channel 55 |
| 1554.13 | DWDM channel 8 |
| 1554.94 | DWDM channel 7 |
| 1555.75 | DWDM channel 6 |
| 1556.55 | DWDM channel 5 |
| 1560.61 | DWDM channel 53 |
| 1557.36 | DWDM channel 4 |
| 1558.17 | DWDM channel 3 |
| 1558.98 | DWDM channel 2 |
| 1559.79 | DWDM channel 1 |
| 1571 | CWDM channel 3 |
| 1591 | CWDM channel 2 |
| 1611 | CWDM channel 1 |

2.38 Power level (pwr) - output

| Amplifier | Range | Default |
|-----------|----------|---------|
| OPA | -8 to 8 | -8 |
| OBA | -5 to 18 | -5 |
| OLA | -7 to 16 | -7 |
| OLAM | -5 to 18 | -5 |
| SBA | 3 to 19 | 3 |
| SPA | -8 to 5 | -8 |
| LGA | -5 to 20 | -5 |
| MGA | -7 to 16 | -7 |
| MGM | -7 to 18 | -7 |

2.39 Primary state (pst)

| Value | Meaning |
|-----------|---|
| IS | In-service |
| IS-ANR | In-service, abnormal |
| IS-NR | In-service, normal |
| OOS | Out-of-service |
| OOS-AU | Out of service, autonomous |
| OOS-AUMA | Out-of-service, autonomous and management |
| OOS-MA | Out of service, management |
| OOS-MAANR | Out of service, management and abnormal |

2.40 Protocol (Protocol) for Transponder modules

| Value | Meaning |
|-------------------|--|
| AUTO | Note Supported by Wavelength Manager only |
| 10GELAN | 10 Gbps Ethernet LAN |
| 10GELANFEC | 10 Gbps Ethernet LAN with Forward Error Correction |
| 10GELANEFEC | 10 Gbps Ethernet LAN with Enhanced Forward Error Correction |
| 10GELANFEC EPCMF | 10 Gbps Ethernet LAN with Forward Error Correction Client Management Frames |
| 10GELANEFEC EPCMF | 10 Gbps Ethernet LAN with Enhanced Forward Error Correction Client Management Frames |
| 10GFC | 10G Fibre Channel |
| ODU1OTU2FEC | OTU2 G.709 Digital Wrapper |
| ESCON | Enterprise systems connection (IBM protocol) |
| FC100 | Fibre channel 100 Mbps |
| FC1200 | Fibre channel 1200 Mbps |
| FC200 | Fibre channel 200 Mbps |
| FC400 | Fibre channel 400 Mbps |
| FDDI | Fibre distributed data interface |
| Fast Ethernet | 100 Mbps Ethernet |
| Gigabit Ethernet | Gigabit Ethernet |
| OC3 | SONET OC3 |
| OC12 | SONET OC12 |
| OC48 | SONET OC48 |
| OC48FEC | SONET OC48 with forward error correction |
| OC192 | SONET OC192 |
| OC192FEC | SONET OC192 with Forward Error Correction |
| OC192EFEC | SONET OC192 with Enhanced Forward Error Correction |
| OTU2eFEC | 10 Gbps Ethernet with Forward Error Correction |
| OTU2eEFEC | 10 Gbps Ethernet with Enhanced Forward Error Correction |
| SMPTE259 | 270 Mbps digital video |
| SMPTE292 | 1.485 Gbps HDTV |
| SMPTE344 | 540 Mbps digital video |
| STM1 | Synchronous Transfer Mode 1 |
| STM4 | Synchronous Transfer Mode 4 |
| STM16 | Synchronous Transfer Mode 16 |
| STM64 | Synchronous Transfer Mode 64 |
| STM64FEC | Synchronous Transfer Mode 64 with Forward Error Correction |

| Value | Meaning |
|-----------|---|
| STM64EFEC | Synchronous Transfer Mode 64 with Enhanced Forward Error Correction |

Note For information about the protocols supported on each Transponder module, see the *Transponder Solutions Guide*.

2.41 Secondary state (sst)

| Value | Meaning |
|-------|--------------------------------------|
| AINS | Automatic, in-service (controllable) |
| COMM | Loss of Communications |
| DSBLD | Disabled |
| FLT | Fault |
| FRCD | Forced |
| INIT | Initializing |
| LKDO | Locked out |
| LPBK | Loopback |
| MEA | Mismatch of equipment and attributes |
| MT | Maintenance |
| PWR | Power feed failure |
| SGEO | Supporting entity outage |
| STDBY | Standby |
| SWDL | Software download |
| UEQ | Unequipped |
| WRK | Working |

2.42 Source AID (src_aid), or Switchmate (swmate)

| Connection type | AID / Source AID / Switch Mate |
|-------------------|--|
| STSn/STSnC | |
| STS1 | MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-192) |
| STS3C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...190) |
| STS6C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...187) |
| STS9C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...184) |
| STS12C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...181) |
| STS15C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...178) |
| STS18C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...175) |
| STS21C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...172) |
| STS24C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...169) |
| STS30C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...163) |
| STS36C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...157) |
| STS48C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...145) |
| STS72C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1,4,7,10...121) |
| VCn/VCnC | |
| VC4 | MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-64) |
| VC2C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-63) |
| VC3C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-62) |
| VC4C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-61) |
| VC5C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-60) |
| VC6C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-59) |
| VC7C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-58) |
| VC8C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-57) |
| VC10C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-55) |
| VC12C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-53) |
| VC16C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-49) |
| VC24C | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-41) |

2.43 TCA supported montypes (montype) and threshold levels (thlev)

The following table lists the 15-minute and 1-day default threshold values for TCA supported PMs. The default 15-minute and 1-day ranges are as follows:

- Second-based montypes (e.g., ES, SES), 15-minute range = 0 to 899; 1-day range = 0 to 86400.
- All other montypes, 15-minute range = 0 to 38700; 1-day range = 0 to 215913600.

| Protocol | Montype | 15-Minute default value | 1-Day default value |
|-------------------------------|-----------|-------------------------|---------------------|
| FC | CV | 382 | 3820 |
| | ES | 25 | 250 |
| | SES | 4 | 40 |
| | UAS | 10 | 10 |
| GE | CV | 382 | 3820 |
| | ES | 25 | 250 |
| | SES | 4 | 40 |
| | UAS | 10 | 10 |
| Layer 1 10GELAN | ES | 25 | 250 |
| | SES | 4 | 40 |
| | UAS | 10 | 10 |
| | INVBLK | 382 | 3820 |
| Layer 2 GE and 10GELAN | FRDR | 0 | 0 |
| | FCSE-RX | 0 | 0 |
| | FRGT | 0 | 0 |
| | JABR | 0 | 0 |
| | OSIZE | 0 | 0 |
| | USIZE | 0 | 0 |
| OTN | UNCRCDWRD | 10 | 100 |
| | OTU-EB | 0 | 0 |
| | OTU-BBE | 382 | 3820 |
| | OTU-ES | 25 | 250 |
| | OTU-SES | 4 | 40 |
| | OTU-UAS | 10 | 10 |
| | OTU-OFS | 2 | 8 |
| OC3, OC12, OC48, OC192 | CVS | 382 | 3820 |
| | ESS | 25 | 250 |
| | SEFS-S | 2 | 8 |
| | SESS | 4 | 40 |

| Protocol | Montype | 15-Minute default value | 1-Day default value |
|---------------------------------|----------------------------------|-------------------------|---------------------|
| | UASS | 10 | 10 |
| | CVL | 382 | 3820 |
| | Note OC3, OC12 only. | | |
| | CVL | 18336 | 183360 |
| | Note OC48, OC192 only. | | |
| | ES-L | 25 | 250 |
| | SES-L | 4 | 40 |
| | UAS-L | 10 | 10 |
| | CVS | 382 | 3820 |
| | ESS | 25 | 250 |
| DOL OSC | SEFS-S | 2 | 8 |
| | SESS | 4 | 40 |
| | UASS | 10 | 10 |
| STM1, STM4, STM16, STM64 | RS-BBE | 382 | 3820 |
| | RS-EB | 0 | 0 |
| | RS-ES | 25 | 250 |
| | RS-SES | 4 | 40 |
| | RS-UAS | 10 | 10 |
| | RS-OFS | 2 | 8 |
| | MS-BBE | 21260 | 212600 |
| | MS-EB | 0 | 0 |
| | MS-ES | 87 | 864 |
| | MS-SES | 1 | 4 |
| | MS-UAS | 10 | 10 |
| STSn/STSnC | CVP | 15 | 125 |
| | ESP | 12 | 100 |
| | SESP | 3 | 7 |
| | UASP | 10 | 10 |
| | FC-P | 2 | 8 |
| VCn/VCnC | HP-EB | 0 | 0 |
| | HP-BBE | 15 | 125 |
| | HP-ES | 12 | 100 |
| | HP-SES | 3 | 7 |
| | HP-UAS | 10 | 10 |

2.44 Type (type)

Table 2-17 Common Equipment

| Module | PEC |
|--------------------------------------|----------|
| BTI 7060 Shelf | BT7A50AA |
| BTI 7060 Shelf with Rear Access -48V | BT7A50AR |
| BTI 7060 System Control Processor | BT7A20CA |
| BTI 7060 Main Shelf Interface | BT7A53BA |
| BTI 7060 Cooling Unit | BT7A52DA |
| BTI 7060 Expansion Shelf Interface | BT7A54BA |
| BTI 7060 AC Power Assembly Kit | BT7A50BA |
| BTI 7060 AC Power Unit | BT7A58AA |
| BTI 7200 - ANSI | BT7A51AA |
| BTI 7200 with rear access -48V | BT7A51AR |
| BTI 7200 Cooling Unit | BT7A52EA |
| BTI 7200 Main Shelf Interface | BT7A53EA |
| BTI 7200 Common Communication module | BT7A54EA |
| Filler Module | BP1A55AA |
| BTI 7030 Shelf | BT7A56AA |
| BTI 7030 System Control Processor | BT7A21BA |
| BTI 7030 Main Shelf Interface | BT7A53CA |
| BTI 7030 Main Shelf Interface | BT7A53CB |
| BTI 7030 Cooling Unit | BT7A57BA |
| BTI 7030 AC Power Assembly Kit | BT7A56CA |
| BTI 7030 AC Power Unit | BT7A58BA |
| BTI 7020 Passive Shelf | BT7A56BA |

Table 2-18 Optical Amplifiers

| Module | PEC | System Software introduced |
|--|----------|----------------------------|
| DWDM C-Band Pre-Amplifier (OPA) | BP1A01DA | 7.1.0 |
| DWDM C-Band Booster Amplifier (OBA) | BP1A02DA | 7.1.0 |
| DWDM Optical Line Amplifier (OLA) | BP1A03AA | 7.1.0 |
| DWDM Optical Line Amplifier with Mid-Stage Access (OLAM) | BP1A04BA | 7.1.0 |
| Single-Channel/Sub-Band Booster Amplifier (SBA) | BP1A05BB | 7.1.0 |
| Single-Channel/Sub-Band Pre-Amplifier (SPA) | BP1A05PB | 7.1.0 |
| DWDM C-Band Low Gain Amplifier (LGA) | BT7A02AA | 12.1 |

Table 2-18 Optical Amplifiers (Continued)

| Module | PEC | System Software introduced |
|--|----------|----------------------------|
| DWDM C-Band Mid Gain Amplifier (MGA) | BT7A03AA | 12.1 |
| DWDM C-Band Mid Gain Amplifier with Mid-stage access (MGM) | BT7A04AA | 12.1 |

Table 2-19 Dispersion Compensation modules

| Module | PEC | System software introduced |
|--|-------------|----------------------------|
| Dispersion Compensation Modules (DCF-type) | | |
| SMF DCM 20 KM | BP1A10CH-UC | 7.1.0 |
| SMF DCM 40 KM | BP1A10CC-SC | 7.1.0 |
| SMF DCM 60 KM | BP1A10CA-SC | 7.1.0 |
| SMF DCM 80 KM | BP1A10CB-SC | 7.1.0 |
| C-Band Dispersion Compensation Modules (FBG-type) | | |
| SMF 100 GHz C-Band DCM 40 KM | BP1A10AA-UC | 7.1.0 |
| SMF 100 GHz C-Band DCM 60 KM | BP1A10AB-UC | 7.1.0 |
| SMF 100 GHz C-Band DCM 80 KM | BP1A10AC-UC | 7.1.0 |
| Dispersion Compensation Modules (Expandable) | | |
| Dispersion Compensation Module - SMF 5 km | BT7A13AA | 9.1 |
| Dispersion Compensation Module - SMF 10 km | BT7A12AA | 9.1 |
| Dispersion Compensation Module - SMF 15 km | BT7A13BA | 9.1 |
| Dispersion Compensation Module - SMF 20 km | BT7A12BA | 9.1 |
| Dispersion Compensation Module - SMF 30 km | BT7A12CA | 9.1 |
| Dispersion Compensation Module - SMF 40 km | BT7A12DA | 9.1 |
| Dispersion Compensation Module - SMF 50 km | BT7A12EA | 9.1 |
| Dispersion Compensation Module - SMF 60 km | BT7A12FA | 9.1 |
| Dispersion Compensation Module - SMF 70 km | BT7A12GA | 9.1 |
| Dispersion Compensation Module - SMF 80 km | BT7A12HA | 9.1 |
| Dispersion Compensation Module - SMF 90 km | BT7A12JA | 9.1 |
| Dispersion Compensation Module - SMF 100 km | BT7A12KA | 9.1 |

Table 2-20 Optical Multiplexers

| Modules | PEC | System software introduced |
|--|----------|----------------------------|
| Passive multiplexing modules | | |
| 1-Channel DWDM Optical Add/Drop Module | BP1A36AA | 7.1.0 |
| Double 1-Channel CWDM OADM/Double OSC Coupler Splitter | BP1A32CA | 7.1.0 |

Table 2-20 Optical Multiplexers (Continued)

| Modules | PEC | System software introduced |
|--|----------------|-----------------------------------|
| 4-Channel CWDM Mux/Demux, Channel 1 - 4 | | 7.1.0 |
| 4-Channel CWDM Mux/Demux, Channel 5 - 8 | BP1A33BB | 7.1.0 |
| 4-Channel CWDM Mux/Demux, Channel 9 - 12 | BP1A33BC | 7.1.0 |
| 4-Channel CWDM Mux/Demux, Channel 13 - 16 | BP1A33BD | 7.1.0 |
| 4-Channel CWDM Mux/Demux, Channel 1 - 4, LC (without inventory) | | |
| 4-Channel CWDM Mux/Demux, Channel 5 - 8, LC (without inventory) | | |
| 4-Channel CWDM Mux/Demux, Channel 9 - 12, LC (without inventory) | | |
| 4-Channel CWDM Mux/Demux, Channel 13 - 16, LC (without inventory) | | |
| 32-Channel DWDM Mux/Demux Module 1 | BP1A35AA | 7.1.0 |
| 32-Channel DWDM Mux/Demux Module 2 | BP1A35AB | 7.1.0 |
| 32-Channel DWDM Mux/Demux Module 3 | BP1A35AC | 7.1.0 |
| 32-Channel DWDM Mux/Demux Module 4 | BP1A35AD | 7.1.0 |
| 32-Channel DWDM Bidirectional Mux/Demux (Mux Band 1, Demux Band 2) | BP1A35DA-12 | 7.1.0 |
| 32-Channel DWDM Bidirectional Mux/Demux (Mux Band 2, Demux Band 1) | BP1A35DA-21 | 7.1.0 |
| 32-Channel DWDM Bidirectional Mux/Demux (Mux Band 4, Demux Band 2) | BP1A35DA-42 | 7.1.0 |
| 32-Channel DWDM Bidirectional Mux/Demux (Mux Band 2, Demux Band 4) | BP1A35DA-24 | 7.1.0 |
| 2-Channel DWDM OADM | BP1A36AB | 7.1.0 |
| 4-Channel DWDM OADM | BP1A36AC | 7.1.0 |
| 4-Channel DWDM OADM, BTI Channels E1, E3, E5, E7 | BP1A36BC | 7.1.0 |
| Coupler/Splitter modules | | |
| 1310 nm and C-Band Coupler/Splitter | BP1A38AA | 7.1.0 |
| CWDM + DWDM Splitter Combiner | BP1A30AA | 7.1.0 |
| DWDM Bidirectional Coupler/Splitter | BP1A39CA | 7.1.0 |
| Single 50/50 Coupler/Splitter | BP1A39DA | 7.1.0 |
| Multiplexer/Demultiplexer passive shelves | | |
| 40-Channel DWDM Mux/Demux | BT7A37AA | 7.1.0 |
| 40-Channel DWDM Mux/Demux (ETSI) | BT7A37CA | 7.1.0 |
| 96-Channel DWDM Mux/Demux | BT8A96MD01-I02 | 10.3 |
| 96-Channel DWDM Mux/Demux (ETSI) | BT8A96MD02-I02 | 10.3 |
| 96-Channel DWDM Mux/Demux (FMD96) | BT8A78MD03 | 13.2 |

Table 2-21 Transponders

| Modules | PEC | System software introduced |
|---|--------------|----------------------------|
| Dual 2.5G Multiprotocol Transponders | | |
| 2.5G Wavelength Regenerator | BP1A42AA | 7.1.0 |
| 2.5G Wavelength Manager | BP1A43AA | 7.1.0 |
| Dual 4G Multiprotocol Transponders | | |
| Dual 4G Multiprotocol Transponder | BT7A41CA | 7.2.0 |
| 10G Transponders | | |
| Dual 10G Multiprotocol Transponder | BT7A49AA | 7.1.0 |
| | BT7A49AA-I02 | 10.4.1 |
| Dual 10G Multiprotocol Transponder Lite | BT7A49AC | 7.2.0 |
| 10G Multiprotocol Transponder | BT7A49AB | 7.1.0 |

Table 2-22 Muxponders

| Modules | PEC | System software introduced |
|--|--------------|----------------------------|
| 2-Port GbE Muxponders | | |
| 2-Port GbE Muxponder – SONET | BP1A46AA | 7.1.0 |
| 2-Port GbE Muxponder SDH | BP1A46BA | 7.1.0 |
| 8-Port Multiprotocol Muxponders | | |
| 8-Port Multiprotocol Muxponder – SONET | BT7A47JA | 7.2.0 |
| 8-Port Multiprotocol Muxponder – SDH | BT7A47KA | 7.2.0 |
| 8-Port Multiprotocol Muxponder – SDH CCAT | BT7A47MA | |
| 10-Port Multiprotocol Muxponders | | |
| 10-Port Multiprotocol Muxponder – SONET | BT7A48AA | 7.1.1 |
| | BT7A48AA-I02 | 13.1 |
| 10-Port Multiprotocol Muxponder – SDH | BT7A48BA | 7.1.1 |
| 10-Port Multiprotocol Muxponder – SDH CCAT | BT7A48BA-I02 | 13.1 |
| | BT7A48DA | 7.1.1 |

Table 2-23 DOL modules

| Module | PEC | System software introduced |
|---|----------|----------------------------|
| Dispersion Compensation Modules (Expandable) | | |
| Dispersion Compensation Module - SMF 5 km | BT7A13AA | 9.1 |
| Dispersion Compensation Module - SMF 10 km | BT7A12AA | 9.1 |
| Dispersion Compensation Module - SMF 15 km | BT7A13BA | 9.1 |
| Dispersion Compensation Module - SMF 20 km | BT7A12BA | 9.1 |
| Dispersion Compensation Module - SMF 30 km | BT7A12CA | 9.1 |

Table 2-23 DOL modules (Continued)

| Module | PEC | System software introduced |
|---|------------|-----------------------------------|
| Dispersion Compensation Module - SMF 40 km | BT7A12DA | 9.1 |
| Dispersion Compensation Module - SMF 50 km | BT7A12EA | 9.1 |
| Dispersion Compensation Module - SMF 60 km | BT7A12FA | 9.1 |
| Dispersion Compensation Module - SMF 70 km | BT7A12GA | 9.1 |
| Dispersion Compensation Module - SMF 80 km | BT7A12HA | 9.1 |
| Dispersion Compensation Module - SMF 90 km | BT7A12JA | 9.1 |
| Dispersion Compensation Module - SMF 100 km | BT7A12KA | 9.1 |
| DWDM Line Amplifier | | |
| DLA2 (line/pre+booster) | BT7A06CA | 9.1 |
| DWDM - ROADM-on-a-Blade | | |
| 2D ROADM-on-a-Blade | BT7A07AA | 9.1 |
| 40-channel 4D ROADM-on-a-Blade | BT7A07BA | 10.1 |
| 96-channel 4D ROADM-on-a-Blade | BT7A07CA | 11.2 |

2.45 User access privilege (uap)

| Value | Meaning |
|--------------|--|
| SUPERUSER | Full access to all system operations |
| PROVISIONING | Full access to all system operations except security operations |
| MAINTENANCE | Full access to all system operations except provisioning and security operations |
| SURVEILLANCE | Read-only access |

2.46 VCG Type (vcgtype)

| Protocol | VCG Type |
|----------|--|
| SONET | STS1C2V |
| | Note |
| | Applies only to 2-Port GbE Muxponder for RTRV-VCG command. |
| | STS1C3V |
| | STS1C6V |
| | STS1C19V |
| | STS1C21V |
| | STS1C22V |
| | STS1C31V |
| | STS1C37V |
| | STS1C74V |
| | STS3C1V |
| | STS3C2V |
| | STS3C6V |
| | STS3C7V |
| | STS3C10V |
| | STS3C12V |
| | STS3C24V |
| SDH | VC41V |
| | VC42V |
| | VC46V |
| | VC47V |
| | VC410V |
| | VC412V |
| | VC424V |

2.47 Wavelength (wavelength) for Multiplexing modules

Table 2-24 CWDM Wavelength Plan

| Available Wavelengths (nm) | Mux/Demux Modules | BTI Channel Numbers |
|----------------------------|-------------------|---------------------|
| 1271 | 4 | 16 |
| 1291 | 4 | 15 |
| 1311 | 4 | 14 |
| 1331 | 4 | 13 |
| 1351 | 3 | 12 |
| 1371 | 3 | 11 |
| 1431 | 3 | 10 |
| 1451 | 3 | 9 |
| 1471 | 2 | 8 |
| 1491 | 2 | 7 |
| 1511 | 2 | 6 |
| 1531 | 2 | 5 |
| 1551 | 1 | 4 |
| 1571 | 1 | 3 |
| 1591 | 1 | 2 |
| 1611 | 1 | 1 |

Table 2-25 DWDM Wavelength Plan

| Wavelength (nm) | BTI Channel Numbers | Wavelength (nm) | BTI Channel Numbers |
|-----------------|---------------------|-----------------|---------------------|
| 1529.55 | E8 | 1545.32 | E4 |
| 1530.33 | 32 | 1546.12 | 16 |
| 1531.12 | 31 | 1546.92 | 15 |
| 1531.90 | 30 | 1547.72 | 14 |
| 1532.68 | 29 | 1548.51 | 13 |
| 1533.47 | 28 | 1549.32 | 12 |
| 1534.25 | 27 | 1550.12 | 11 |
| 1535.04 | 26 | 1550.92 | 10 |
| 1535.82 | 25 | 1551.72 | 9 |
| 1536.61 | E7 | 1552.52 | E3 |
| 1537.40 | E6 | 1553.33 | E2 |
| 1538.19 | 24 | 1554.13 | 8 |
| 1538.98 | 23 | 1554.94 | 7 |
| 1539.77 | 22 | 1555.75 | 6 |
| 1540.56 | 21 | 1556.55 | 5 |
| 1541.35 | 20 | 1557.36 | 4 |

Table 2-25 DWDM Wavelength Plan (Continued)

| Wavelength (nm) | BTI Channel Numbers | Wavelength (nm) | BTI Channel Numbers |
|------------------------|----------------------------|------------------------|----------------------------|
| 1542.14 | 19 | 1558.17 | 3 |
| 1542.94 | 18 | 1558.98 | 2 |
| 1543.73 | 17 | 1559.79 | 1 |
| 1544.53 | E5 | 1560.61 | E1 |

2.48 XCVR Destination AID (dst_aid)

| Module | AID |
|------------------------|---------------------------|
| Transponder | TPR-(1,11,21,31)-(1-20)-1 |
| | TPR-(1,11,21,31)-(1-20)-2 |
| | TPR-(1,11,21,31)-(1-20)-3 |
| | TPR-(1,11,21,31)-(1-20)-4 |
| Wavelength Manager | WM-(1,11,21,31)-(1-20)-1 |
| | WM-(1,11,21,31)-(1-20)-2 |
| | WM-(1,11,21,31)-(1-20)-3 |
| | WM(1,11,21,31)-(1-20)-4 |
| Wavelength Regenerator | WR-(1,11,21,31)-(1-20)-1 |
| | WR-(1,11,21,31)-(1-20)-2 |
| | WR-(1,11,21,31)-(1-20)-3 |
| | WR(1,11,21,31)-(1-20)-4 |
| Wavelength Translator | WT-(1,11,21,31)-(1-20)-1 |
| | WT-(1,11,21,31)-(1-20)-2 |
| | WT-(1,11,21,31)-(1-20)-3 |
| | WT-(1,11,21,31)-(1-20)-4 |

2.49 XCVR Source AID (src_aid)

| Module | AID |
|------------------------|---------------------------|
| Transponder | TPR-(1,11,21,31)-(1-20)-1 |
| | TPR-(1,11,21,31)-(1-20)-2 |
| | TPR-(1,11,21,31)-(1-20)-3 |
| | TPR-(1,11,21,31)-(1-20)-4 |
| Wavelength Manager | WM-(1,11,21,31)-(1-20)-1 |
| | WM-(1,11,21,31)-(1-20)-2 |
| | WM-(1,11,21,31)-(1-20)-3 |
| | WM(1,11,21,31)-(1-20)-4 |
| Wavelength Regenerator | WR-(1,11,21,31)-(1-20)-1 |
| | WR-(1,11,21,31)-(1-20)-2 |
| | WR-(1,11,21,31)-(1-20)-3 |
| | WR(1,11,21,31)-(1-20)-4 |
| Wavelength Translator | WT-(1,11,21,31)-(1-20)-1 |
| | WT-(1,11,21,31)-(1-20)-2 |
| | WT-(1,11,21,31)-(1-20)-3 |
| | WT-(1,11,21,31)-(1-20)-4 |

3.0 TL1 outputs

This section provides information about TL1 outputs supported by the BTI 7000 Series and covers the following topics:

- 3.1, “Acknowledgement messages”
- 3.2, “Autonomous messages”
- 3.3, “Response messages”
- 3.4, “How TL1 commands and messages are described”

TL1 output syntax conventions

In this chapter, the following conventions are used for response syntax:

< > indicates a parameter that must be provided by the BTI 7000 Series as output

^ represents a space character

[] indicates optional components

cr is a carriage return

lf is a line feed

3.1 Acknowledgement messages

The acknowledgement message is a brief reply from the network element indicating that a TL1 command is being acted on or has been immediately rejected. The acknowledgement message assures a user that a command that takes some time to execute has been received by the network element.

Message syntax

```
cr lf lf
<ack_code>^[CTAG] cr lf
<
```

where

| Parameter | Description | Range | Default Value |
|-----------|--|---------------------------------|----------------|
| ack_code | is one of the following acknowledgement codes: IP In Progress PF Printout Follows OK Okay NA No Acknowledgement NG No Good RL Repeat Later - system is busy | IP PF OK NA NG RL | not applicable |
| ctag | is the correlation tag of the original input command. | 1 to 6 alphanumeric characters. | not applicable |
| ; | is the normal terminator of a response. The final response to a partial response always ends in a semicolon (;). | ; | ; |
| < | is the less than terminator for acknowledgement messages. This terminator is only used with acknowledgements. | < | < |

Example

```
IP 100
<
```

3.2 Autonomous messages

The autonomous message is generated by the BTI 7000 Series either on a periodic timed basis or to report some unusual occurrence.

Autonomous messages report alarms, configuration changes, or condition changes. Many of these messages are spontaneously triggered by the BTI 7000 Series itself without intervention. Other messages, such as those reporting on periodic condition states or performance data values, are scheduled by the BTI 7000 Series operator.

Response syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde>^<atag>^<verb>^[<modifier1>[<modifier2>]]cr lf
^^^<text_block> cr lf
;
```

Note As the text_block field presented in autonomous messages can vary greatly, detailed explanations of each autonomous message are included with its associated alarm, configuration change, or condition change. For further information, see the applicable command in 3.4, “[How TL1 commands and messages are described](#)” of this document.

where

| Parameter | Description | Range | Default Value |
|-----------|--|----------------------------------|-------------------------------|
| sid | is the system identification code of the network element. | 1 to 20 alphanumeric characters. | not applicable |
| date | is the date expressed as year-month-day. Note: The valid date range is from 70-01-01 to 36-02-06, which represents 1970-01-01 (GMT) to 2036-02-06 (GMT). | YY-MM-DD | date the command was executed |
| time | is the time using a 24-hour clock expressed as hour-minute-second. | HH-MM-SS | time the command was executed |
| almcde | is the alarm code that is included in the autonomous identifier of some messages. Not all events are treated equally. Some may signify alarm conditions, and some may signify some other occurrence in the network element. The alarm code indicates the severity of the alarm. One of the | *C ** * A | not applicable |

| Parameter | Description | Range | Default Value |
|------------|---|--|----------------|
| | following four severity levels is assigned to each event condition: *C Critical alarm condition (CR) ** Major alarm condition (MJ) * Minor alarm condition (MN) A Non-alarmed autonomous message (CL, NA) | | |
| atag | is the autonomous correlation tag that identifies the spontaneous output and allows the OSS to correlate the messages received from and generated by the network element. The ATAG is a unique numeric string generated by the system. It is the responsibility of the network element to generate each ATAG in sequence. | 1 to 9999999999 (a decimal number made up of an integer and an optional fractional component). | not applicable |
| verb | indicates the class of command (or autonomous message). It identifies the action to be taken on the network element as a result of the TL1 message, or the type of autonomous event that the network element is sending. | As defined by TL1. | not applicable |
| modifier1 | is the first modifier that identifies the object in the network element where the action is being taken, or the type of information that is being requested. For example, alarms/events for which information is being requested. | As defined by TL1. | not applicable |
| modifier2 | is the second modifier that more specifically describes the object upon which the action is being taken, and is interpreted differently depending on the domain. | As defined by TL1. | not applicable |
| text_block | is the payload or main body of the autonomous message. The text block presents information specific to the particular autonomous message. The text block can have quoted lines, unquoted lines, and comments. | Up to 4096 bytes of data. | not applicable |
| ; | is the terminator of the response. | ; | ; |
| > | is the greater than terminator that indicates more output relating to the message is to follow. | > | > |

Example

```
BTI7000 03-01-30 14:38:45
** 197 REPT ALM OA
  "OLAM-1-6-1:MJ,T-OPR-LT,NSA,03-01-30,14-38-44,,,-36.1,-29.0,:\"Optical
power received minimum threshold exceeded.\",,,:,"
;
```

3.3 Response messages

The response message is a detailed reply or set of replies to a TL1 command. It contains information regarding whether the command was executed successfully and includes any data that needs to be returned to the operating system or user.

Message syntax

Normal response

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
;
```

Error response

```
cr lf lf
    sid date time cr lf
M  ctag DENY cr lf
    <errcde> cr lf
    /* <errmsg> */ cr lf
;
```

Completed response

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<retrieved_data>" cr lf
> cr lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<retrieved_data>" cr lf
;
```

where

| Parameter | Description | Range | Default Value |
|-----------|---|----------------------------------|-------------------------------|
| sid | is the system identification code of the network element. | 1 to 20 alphanumeric characters. | not applicable |
| date | is the date expressed as year-month-day. Note: The valid date range is from 70-01-01 to 36-02-06, which represents | YY-MM-DD | date the command was executed |

| Parameter | Description | Range | Default Value |
|----------------|---|---------------------------------------|-------------------------------|
| | 1970-01-01 (GMT) to 2036-02-06 (GMT). | | |
| time | is the time using a 24-hour clock expressed as hour-minute-second. | HH-MM-SS | time the command was executed |
| M | is a single character that indicates the message is a response to an input command. | M | M |
| ctag | is the correlation tag of the original input command. | 1 to 6 alphanumeric characters. | not applicable |
| COMPLD | is a response code that indicates the requested operation completed successfully. | COMPLD | COMPLD |
| DENY | is a response code that indicates the input command failed. | DENY | DENY |
| RTRV | is a response code indicating that the response is lengthy and is being returned in multiple parts. | RTRV | RTRV |
| errcode | is the error code expressed as a four-character code (such as IDNV). | A to Z in four alphabetic characters. | not applicable |
| errmsg | is free-form text that provides an error message (such as /* session has expired, please login again */) that explains why an input command failed. | String | not applicable |
| retrieved_data | is the retrieved data that was requested in the input command. | Up to 4096 bytes of data. | not applicable |
| ; | is the terminator of the response. | ; | ; |
| > | is the greater than terminator that indicates more output relating to the message is to follow. | > | > |

Multipart responses using the COMPLD response code

A successful response has a response code of COMPLD.

The COMPLD response code can be used to return the first part of the message, up to 4096 bytes of data. This is useful when the command has requested an extensive amount of data, such as a log retrieval, a long list of alarms, or events, etc. When the COMPLD response code is used, the terminator is the greater than (>) symbol.

Multiple responses with the COMPLD completion code are permitted for the same request/CTAG, but the final “portion” of the response has a COMPLD completion code, with a semicolon (;) terminator.

Examples

Normal response

```
BTI7000 03-01-30 14:39:44
M 100 COMPLD
;
```

Error response

```
BTI7000 03-01-30 15:00:43
M 100 DENY
PICC
/* User Already Logged In */
;
```

Completed response

```
BTI7000 03-01-30 15:07:32
M 100 COMPLD
"SH-1,EQPT:NAME=MS,PEC=BT7A50AA,CLEI=,FNAME=Main Shelf, HWREV=
\"1\", SHCONF=6-SLOT"
" SLOT-1-1,EQPT:NAME=FLLR,PEC=BP1A55AA,CLEI=,FNAME=Filler, SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" SLOT-1-2,EQPT:NAME=FLLR,PEC=BP1A55AA,CLEI=,FNAME=Filler, SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" SLOT-1-3,EQPT:NAME=FLLR,PEC=BP1A55AA,CLEI=,FNAME=Filler, SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" SLOT-1-4,EQPT:NAME=FLLR,PEC=BP1A55AA,CLEI=,FNAME=Filler, SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" SLOT-1-5,EQPT:NAME=SCP,PEC=BT7A20CA,CLEI=,FNAME=System Control
Processor,SER=\"4G08DW46\",HWREV=\"1\",MFGDAT=\"2009-07-18\",MFGLOCN=BTI
THURSTON,TSTDAT=2009-07-18,TSTLOCN=BTI THURSTON,"
" SLOT-1-6,EQPT:NAME=FLLR,PEC=BP1A55AA,CLEI=,FNAME=Filler, SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" SI-1,EQPT:NAME=MSI,PEC=BT7A53BA,CLEI=,FNAME=Main Shelf Interface,SER=\"N/A
\",HWREV=\"0\",MFGDAT=\"N/A\",MFGLOCN=N/A,TSTDAT=N/A,TSTLOCN=N/A,"
" CU-1,EQPT:NAME=CU,PEC=BT7A52DA,CLEI=,FNAME=Cooling Unit, SER=
\"454326578\",HWREV=\"1\",MFGDAT=\"2009-07-18\",MFGLOCN=BTI THURSTON,
TSTDAT=2009-07-18,TSTLOCN=BTI THURSTON,"
;
```

3.4 How TL1 commands and messages are described

In general, each command or message described in this document covers the following information:

- Description
- Authorization required
- History
- Input or message syntax
- Example
 - Command
 - Response

| | |
|-------------|---|
| Note | Since each retrieve command reports a unique output message, the message syntax for each retrieve command is also documented in this chapter. |
|-------------|---|

TL1 output message syntax conventions

The following conventions are used for response syntax:

< > indicates a parameter that must be provided by the BTI 7000 Series as output

^ represents a space character

[] indicates optional components

cr is a carriage return

lf is a line feed

For information on standard output messages, see [3.4, “How TL1 commands and messages are described”](#).

For complete information about setting up the port configurations of the BTI 7000 Series for TL1 communication, refer to the *Operations Solutions Guide*.

4.0 ACT commands

This section describes activate (ACT) commands for the BTI 7000 Series.

- “ACT-USER”

ACT-USER

The ACT-USER command allows a user to log in to the network element.



Syntax

```
ACT-USER:[TID]:<uid>:[CTAG]::<pid>;
```

Example command

```
ACT-USER:BTI7000:admin:100::*****;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters. | Not applicable |
| pid | The password identifier, which is a confidential code to qualify the authorized system user to access the account specified by the user ID | 6 to 10 case-sensitive alphanumeric characters and special characters Note Although the default system password contains five characters, BTI recommends using a password that contains a minimum of six characters. Note All special characters are supported except hyphen (-), equals sign (=), semicolon (;), colon (:), apostrophe ('), quotation mark ("), comma (,), question mark (?) . | Not applicable |

Guideline

Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface).

5.0 ALW commands

This section describes allow (ALW) commands for the BTI 7000 Series.

- “ALW-MSG-ALL”
- “ALW-USER-SECU”

ALW-MSG-ALL

The ALW-MSG-ALL command enables the reporting of all autonomous messages for that user's TL1 session. This is the default behavior for a TL1 session.



Syntax

```
ALW-MSG-ALL:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<tmper>;
```

Example command

```
ALW-MSG-ALL:BTI7000::100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------------------------------|----------------|
| aid | The access identifier for the category | Not supported in this release | Not applicable |
| ntfcncde | The notification code of the event that caused the condition to be reported | Not supported in this release | Not applicable |
| condtype | The condition type code for an alarm or a reported event | Not supported in this release | Not applicable |
| tmper | The performance monitoring time period | Not supported in this release | Not applicable |

ALW-USER-SECU

The ALW-USER-SECU command enables a security profile, of a local user, that has been previously disabled. This allows the local user to log into the network element.



Syntax

```
ALW-USER-SECU:[TID]:<uid>:[CTAG];
```

Example command

```
ALW-USER-SECU:BTI7000:joseph:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |

6.0 CANC commands

This section describes cancel (CANC) commands for the BTI 7000 Series.

- “CANC-DB-DLT”
- “CANC-DB-RST”
- “CANC-SYS-UPGRD”
- “CANC-USER”
- “CANC-USER-SECU”

CANC-DB-DLT

The CANC-DB-DLT command cancels a database delete request that is currently in progress, and recovers the existing database from another module on the network element. This command is issued only after an INVK-DB-DLT and before CMMT-DB-DLT command has been entered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CANC-DB-DLT:[TID]::[CTAG];
```

Example command

```
CANC-DB-DLT:BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, “Staging block”. | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, “Staging block”. | 100 |

CANC-DB-RST

The CANC-DB-RST command cancels a database restore that is currently in progress, rolling the database back to the previous database as if the database restore action has not taken place. This command can be issued only after the INVK-DB-RST is entered but before the CMMT-DB-RST command is entered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CANC-DB-RST:[TID]::[CTAG];
```

Example command

```
CANC-DB-RST:BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, "Staging block" . | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, "Staging block" . | 100 |

CANC-SYS-UPGRD

The CANC-SYS-UPGRD command cancels a system upgrade that is currently in progress. This command is issued only after an INVK-SYS-UPGRD command has been entered and processed.

If the CANC-SYS-UPGRD command is entered after an INVK-SYS-UPGRD command has been entered and processed completely, the system rolls back to the previous version of the software.

Note The CANC-SYS-UPGRD command is not recorded in the command log file.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CANC-SYS-UPGRD:[TID]::[CTAG];
```

Example command

```
CANC-SYS-UPGRD:  
BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, "Staging block". | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, "Staging block". | 100 |

CANC-USER

The CANC-USER command cancels the current user's own TL1 session and logs the user out of the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CANC-USER:[TID]:<uid>:[CTAG];
```

Example command

```
CANC-USER:BTI7000:joseph:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |

CANC-USER-SECU

The CANC-USER-SECU command allows a system administrator to terminate the active sessions of other users.



Syntax

```
CANC-USER-SECU:[TID]:<uid>:[CTAG];
```

Example command

```
CANC-USER-SECU:BTI7000:joseph:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |

7.0 CHK commands

This section describes check (CHK) commands for the BTI 7000 Series.

- “CHK-SYS-UPGRD”

CHK-SYS-UPGRD

The CHK-SYS-UPGRD command checks for the presence of the system upgrade file at the IP address and path that is entered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CHK-SYS-UPGRD:[TID]::[CTAG]:::TYPE=<type>,IPADDR=<ipaddr>[,PATH=<path>]
[,USERID=<userid>][,PWD=<pwd>;
```

Example command

```
CHK-SYS-UPGRD:BTI7000::100:::TYPE=FTP,IPADDR=192.168.172.110,PATH=/tmp/images
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| type | The type of backup or restore transfer | FTP SFTP SCP | Not applicable |
| ipaddr | The IP address | Four integers between 0 and 255. separated by periods. | Not applicable |
| path | The directory path to the upgrade files Note The maximum path length is 54 characters. Note Some UNIX systems may require that the entire directory path and system upgrade file name be entered for the path field. | System upgrade file names | Not applicable |
| userid | The user ID, which is a unique name that identifies each authorized system user on the external FTP server | 1 to 10 case-sensitive alphanumeric characters | Not applicable |
| pwd | The password identifier that qualifies the authorized user to access their user ID on the external FTP server. Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). For details on what characters are forbidden, see Appendix E, "Special characters" . | 6 to 10 case-sensitive alphanumeric characters | Not applicable |

8.0 CMMT commands

This section describes commit (CMMT) commands for the BTI 7000 Series.

- “CMMT-DB-DLT”
- “CMMT-DB-RST”
- “CMMT-SYS-UPGRD”

CMMT-DB-DLT

The CMMT-DB-DLT command commits a database delete request. The databases on the other modules on the network element are deleted and the empty database is copied to the holding location on each module.

This command is entered after the INVK-DB-DLT command has completed.

Important Once this command is issued, the system cannot be rolled back to the previous database image.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CMMT-DB-DLT:[TID]::[CTAG];
```

Example command

```
CMMT-DB-DLT:BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, "Staging block" . | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, "Staging block" . | 100 |

CMMT-DB-RST

The CMMT-DB-RST command commits a database restore to the network element.

Important Once this command is issued, the system cannot be rolled back to the previous database image.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CMMT-DB-RST:[TID]::[CTAG];
```

Example command

```
CMMT-DB-RST:BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, “ Staging block ”. | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, “ Staging block ”. | 100 |

CMMT-SYS-UPGRD

The CMMT-SYS-UPGRD command commits a system upgrade to the network element. The command is entered after the INVK-SYS-UPGRD command has completed and the operator logs back into the system.

Issuing the CMMT-SYS-UPGRD command removes all trace of the previous software version by copying the now active memory bank into the inactive memory bank.

Important Once this command is issued, the system cannot be rolled back to the previous software version.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
CMMT-SYS-UPGRD:[TID]::[CTAG];
```

Example command

```
CMMT-SYS-UPGRD:BTI7000::100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|------------------|
| TID | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, "Staging block". | Assigned NE name |
| CTAG | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | 1 to 6 alphanumeric characters. See 1.1.2, "Staging block". | 100 |

9.0 DLT commands

This section describes delete (DLT) commands for the BTI 7000 Series.

- “DLT-ARP”
- “DLT-AUTH-SERV”
- “DLT-BRI”
- “DLT-CRS-ODU1”
- “DLT-CRS-STSn/STSnC”
- “DLT-CRS-SUBODU1”
- “DLT-CRS-VCn/VCnC”
- “DLT-CRS-VCG”
- “DLT-CRS-WCH”
- “DLT-CRS-XCVR”
- “DLT-EQPT”
- “DLT-FC”
- “DLT-FE”
- “DLT-FFP-OCn”
- “DLT-FFP-STMn”
- “DLT-FFP-XCVR”
- “DLT-GCC0”
- “DLT-GE”
- “DLT-IP”

- “DLT-NGBR”
- “DLT-NTPASSOC”
- “DLT-OA”
- “DLT-OCn”
- “DLT-ODCC”
- “DLT-OL-EQPT”
- “DLT-OL-GROUP”
- “DLT-OL-PORT”
- “DLT-OSPF”
- “DLT-OSPF-IF”
- “DLT-ROUTE-STATIC”
- “DLT-SNMP-COMMUNITY”
- “DLT-SNMP-TRAPRCV”
- “DLT-STMn”
- “DLT-USER-SECU”
- “DLT-VCG”
- “DLT-XCVR”

DLT-ARP

The DLT-ARP command deletes all non-published entries from the ARP table.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-ARP:[TID]::[CTAG];
```

Example command

```
BTI7000
DLT-ARP
BTI7000 13-04-01 14:03:53
M 100 COMPLD
;
BTI7000>
```

Guideline

- You cannot delete individual ARP table entries.
- Published ARP types cannot be deleted.

DLT-AUTH-SERV

The DLT-AUTH-SERV command deletes authentication server information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-AUTH-SERV:[TID]:<aid>:[CTAG]::;
```

Example command

```
DLT-AUTH-SERV:BTI7000:10.64.6.28;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------|--|----------------|
| aid | IP Address of the server | Four integers between 0 and 255 separated by periods | Not applicable |

DLT-BRI

The DLT-BRI command deletes provisioning information for Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder.

Note All cross-connects associated with a BRI client side port must be deleted before the BRI client side port can be deleted. The BRI client side port must be removed from service before it is deleted, otherwise the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-BRI:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-BRI:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-CRS-ODU1

The DLT-CRS-ODU1 command deletes an asynchronous connection between a ODU1 quadrant on a line port and a 2.5G client.

The table below shows the supported ODU1 cross connections which can be deleted on BT7A48AA-I02 and BT7A48BA-I02 modules.

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---|-----------------------|
| Line 1 SONET/SDH ODU1 | Source and Destination quadrant must be the same. One pass-through cross connect of this type can be provisioned. | Line 2 SONET/SDH ODU1 |
| Line 1 SONET /SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |
| Line 2 SONET/ SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |

Note On NE shelves running release 13.1 and lower, ODU1 pass-through connections are not supported on BT7A48AA-I02 and BT7A48BA-I02 modules. ODU1 add / drop cross connections are supported on Line 1 only.

The table below shows the supported ODU1 cross connections which can be deleted on BT7A48AA, BT7A48BA and BT7A48DA modules

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---------------------------|-------------|
| Line 1 SONET/ SDH ODU1 | ODU1#1 | Client 1 |
| Line 1 SONET/ SDH ODU1 | ODU1#2 | Client 2 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 3 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 4 |

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-CRS-ODU1:[TID]:<src_aid>,<dst_aid>:[CTAG]:<CCT>;
```

Example command

```
DLT-CRS-ODU1:BTI7000:MXP-1-1-L1-1,MXP-1-1-C2::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------------------|---|----------------|
| src_aid | The source access identifier | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.2 and greater MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |

| Parameter | Description | | Range | Default |
|-----------|-----------------------------------|--|---|----------------|
| | | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(L1)-(1-4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| dst_aid | The destination access identifier | BT7A48AA-I02 BT7A48BA-I02 Rel 13.2 and greater | MXP-(1,11,21,31)-(1....20)-(L1, L2, C1, C2, C3, C4)-(1-4) | Not applicable |
| | | BT7A48AA-I02 BT7A48BA-I02 Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| cct | The cross-connection type | | 2WAY | 2WAY |

DLT-CRS-STSn/STSnC

The DLT-CRS-STSn/STSnC commands remove a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Muxponder – SONET module.

Authorization Required**Superuser****Provisioning****Maintenance****Surveillance**

Syntax

| | |
|------------------|--|
| DLT-CRS-STSn: | [TID]:<src_aid>,<dst_aid>:[CTAG]::<CCT>; |
| DLT-CRS-STSnC: | |
| DLT-CRS-STSn6C: | |
| DLT-CRS-STSn9C: | |
| DLT-CRS-STSn12C: | |
| DLT-CRS-STSn15C: | |
| DLT-CRS-STSn18C: | |
| DLT-CRS-STSn21C: | |
| DLT-CRS-STSn24C: | |
| DLT-CRS-STSn30C: | |
| DLT-CRS-STSn36C: | |
| DLT-CRS-STSn48C: | |
| DLT-CRS-STSn72C: | |
| DLT-CRS-STSn: | |

Example command

```
DLT-CRS-STSn:BTI7000:MXP-1-1-L1-1,MXP-1-1-C2-1::2WAY;
```


DLT-CRS-SUBODU1

The DLT-CRS-SUBODU1 command deletes an asynchronous connection between a SUBODU1 quadrant on a line port and a .622G or a155M client.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-CRS-SUBODU1:[TID]:<src_aid>,<dst_aid>:[CTAG]::<CCT>;
```

Example command

```
DLT-CRS-SUBODU1:BTI7000:MXP-1-1-L1-1,MXP-1-1-C2::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| src_aid | The source access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| dst_aid | The destination access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | Note The dst_aid value cannot be another line port. | |
| cct | The cross-connection type | 2WAY | Not applicable |

DLT-CRS-VCn/VCnC

The DLT-CRS-VCn/VCnC commands remove a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------|---|
| DLT-CRS-VC4: | [TID]:<src_aid>,<dst_aid>:[CTAG]::<CCT> |
| DLT-CRS-VC2C: | |
| DLT-CRS-VC3C: | |
| DLT-CRS-VC4C: | |
| DLT-CRS-VC5C: | |
| DLT-CRS-VC6C: | |
| DLT-CRS-VC7C: | |
| DLT-CRS-VC8C: | |
| DLT-CRS-VC10C: | |
| DLT-CRS-VC12C: | |
| DLT-CRS-VC16C: | |
| DLT-CRS-VC24C: | |

Example command

```
DLT-CRS-VC4:BTI7000:MXP-1-1-L1-1,MXP-1-1-C2-1::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| src_aid | The source access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| dst_aid | The destination access identifier | See 2.9, “Destination AID (dst_aid)”. | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |

DLT-CRS-VCG

The DLT-CRS-VCG command deletes provisioning information for a VCG cross-connection between a line and a client or another line.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-CRS-VCG:[TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>;
```

Example command

```
DLT-CRS-VCG:BTI7000:VCG-1-1-L1-1,MXP-1-1-C1:100::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| src_aid | The source access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) | Not applicable |
| dst_aid | The destination access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |

DLT-CRS-XCVR

The DLT-CRS-XCVR command deletes a cross-connect transceiver port.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
DLT-CRS-XCVR:[TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>;
```

Example command

```
DLT-CRS-XCVR:BTI7000:WR-1-1-1,WR-1-1-2::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| src_aid | The source access identifier | See 2.49, “XCVR Source AID (src_aid)”. (src_aid) . | Not applicable |
| dst_aid | The destination access identifier | See 2.48, “XCVR Destination AID (dst_aid)”. (dst_aid) . | Not applicable |
| cct | The cross-connection type | 1WAY 2WAY | Not applicable |

DLT-CRS-WCH

The DLT-CRS-WCH command is used to de-provision a wavelength-channel cross-connection.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-CRS-WCH:[TID]:[<fromAid>,<toAid>]:[CTAG];
```

Example command

```
DLT-CRS-WCH:BTI7000:ROB-1-3-L1-600,D4OMD-0-2-CH600:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| fromAid | The access identifier of the wavelength channel source end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| toAid | The access identifier of the wavelength channel destination end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

DLT-EQPT

The DLT-EQPT command deletes equipment provisioning information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-EQPT:[TID]:<aid>:[CTAG]:[:<type>]:[CMDMDE=<cmdmde>];
```

Example command

```
DLT-EQPT:BTI7000:OLAM-1-2:100::BP1A04BA;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)” | Not applicable |
| type | The product equipment code (PEC) of the equipment | See 2.44, “Type (type)”. | Not applicable |
| cmdmde | The command mode to be used | NORM FRCD Note Use CMDMDE=NORM only when the equipment is in the OOS-MA state. | NORM |

DLT-FC

The DLT-FC command deletes provisioning information for a fibre channel (FC) client side port of an 8-Port or 10-Port Muxponder module.

Note All cross-connects associated with an FC client side port must be deleted before the FC client side port can be deleted. The FC client side port must be removed from service before it is deleted, otherwise the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-FC:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-FC:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-FE

The DLT-FE command deletes provisioning information for a Fast Ethernet (FE) client side port of a 2-Port GbE Muxponder module.

Note All cross-connects associated with an FE client side port must be deleted before the FE client side port can be deleted.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-FE:[TID]:<aid>:[CTAG]::;
```

Example command and response

```
DLT-FE:BTI7000:MXP-1-1-C3:100::;
```

```
BTI7000 07-08-13 13:04:16
```

```
M 100 COMPLD
```

```
;
```

```
BTI7000>
```

```
BTI7000 07-08-13 13:04:17
```

```
A 41 REPT DBCHG
```

```
"TIME=13-04-17,DATE=07-08-13,SOURCE=100,LINKID=2-14,USERID=admin,  
DBCHGSEQ=5:DLT-FE:MXP-1-1-C3"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1-20)- (C3,C4) | Not applicable |

DLT-FFP-OCn

The DLT-FFP-OCn commands delete a protection group on a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|--------------------------------------|
| DLT-FFP-OC48 | [TID]:<work>,<protect>:[[CTAG]]::; |
| DLT-FFP-OC192 | |

Example command

```
DLT-FFP-OC48:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |

DLT-FFP-STMn

The DLT-FFP-STMn commands delete a protection group on an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|----------------------------------|
| DLT-FFP-STM16 | [TID]:<work>,<protect>:[CTAG]::; |
| DLT-FFP-STM64 | |

Example command

```
DLT-FFP-STM16:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |

DLT-FFP-XCVR

The DLT-FFP-XCVR command deletes the protection group provisioning information on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-FFP-XCVR:[TID]:<work>,<protect>:CTAG;
```

Example command

```
DLT-FFP-XCVR:BTI7000:WR-1-2-2,WR-1-2-4:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| work | The access identifier of the working transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protect | The access identifier of the protecting transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

DLT-GCC0

The DLT-GCC0 command deletes a GCC0 (general communication channel) service on one of the following modules:

- 8-Port Multiprotocol Muxponder
- 10-Port Multiprotocol Muxponder
- 10G Multiprotocol Transponder
- Dual 10G Multiprotocol Transponder
- packetVX Integrated Packet Services Module - 12/2
- packetVX Integrated Packet Services Module - 24/2
- packetVX Integrated Packet Services Module - 24/4

Note The GCC0 service must first be removed from the port, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-GCC0:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-GCC0:BTI7000:TPR-1-3-3:100:::CMDMODE=FRCD;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-GE

The DLT-GE command deletes provisioning information for a gigabit Ethernet (GE) client side port of a Muxponder module.

Note All cross-connects associated with a GE client side port must be deleted before the GE client side port can be deleted. The GE client side port must be removed from service before it is deleted, otherwise the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-GE:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-GE:BTI7000:MXP-1-1-C1:100:::CMDMDE=;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-IP

The DLT-IP command deletes IP address information for the Optical Supervisory Channel (OSC) capabilities that are part of the System Control Processor.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-IP:[TID]:<aid>:CTAG:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-IP:BTI7000:IP-1-5-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|------------------------------|----------------|
| aid | The access identifier | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-NGBR

The DLT-NGBR command deletes a Network Element's neighbor.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-NGBR:[TID]:<aid>:[CTAG]::;
```

Example command

```
DLT-NGBR:BTI7000:IPADDRW:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---------------------------------|----------------|
| aid | The unique keyword representing the neighbor | 1 to 32 alphanumeric characters | Not applicable |

DLT-NTPASSOC

The DLT-NTPASSOC command deletes the NTP time server associated with the NTP client. To disable the NTP client, delete all NTP associations.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-NTPASSOC:[TID]::[CTAG]::ASSOCIPADDR=<associpaddr>;
```

Example command

```
DLT-NTPASSOC:BTI7000::100::associpaddr=192.25.6.14;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| associpaddr | The IP address of the associated NTP server to be deleted | Four integers between 0 and 255 separated by periods | Not applicable |

DLT-OA

The DLT-OA command deletes the provisioning parameters of an optical amplifier.

Note The amplifier module must be in the OOS-MA state, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-OA:[TID]:<aid>:[CTAG][:[:[:[:[CMDMDE=<cmdmde>]]]]];
```

Example command

```
DLT-OA:BTI7000:OLAM-1-2-1:100:::CMDMDE=NORM;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the optical amplifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

DLT-OCn

The DLT-OCn commands delete provisioning information for a SONET port on a Muxponder module.

Note All cross-connections associated with a SONET port must be deleted before the port can be deleted. A SONET port must be removed from service before it is deleted, otherwise the CMDMDE=FRCD parameter must be used.

Important When the provisioning information for a SONET line side port is deleted, the associated virtual concatenation groups (VCGs) are automatically deleted.

Note A SONET port that is involved in a timing reference cannot be deleted.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|------------|---|
| DLT-OC3: | [TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>]; |
| DLT-OC12: | |
| DLT-OC48: | |
| DLT-OC192: | |

Example command

```
DLT-OC3:BTI7000:MXP-1-1-L1:100:::CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------------|---|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2,C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| cmdmde | The command mode | NORM FRCD | | NORM |

DLT-ODCC

The DLT-ODCC command is used to de-provision an OSC Data Communications Channel on Dynamic Optical Layer (DOL) modules.



Syntax

```
DLT-ODCC:[TID]:<aid>:[CTAG];
```

Example command

```
DLT-ODCC:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the ODCC object. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

DLT-OL-EQPT

The DLT-OL-EQPT command is used to remove equipment modules from assignment to a DOL nodal group.



Syntax

```
DLT-OL-EQPT:[TID]:<aid>:[CTAG];
```

Example command

```
DLT-OL-EQPT:BTI7000:DLA-1-6:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the DOL equipment. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

DLT-OL-GROUP

The DLT-OL-GROUP command is used to de-provision a DOL nodal group.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-OL-GROUP:[TID]:<aid>:[CTAG];
```

Example command

```
DLT-OL-GROUP:BTI7000::55:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the DOL group. | See 2.2, “ AID type (aidtype) (for DOL) ”. ALL | Not applicable |

DLT-OL-PORT

The DLT-OL-PORT command is used to de-provision a port on a DOL equipment module.

Note Only client port 2 on a ROB can be de-provisioned.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-OL-PORT::[TID]:<aid>:[CTAG];
```

Example command

```
DLT-OL-PORT:BTI7000:ROB-1-7-DCM:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---------------------------------------|--|----------------|
| aid | The access identifier of the DOL port | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

DLT-OSPF

The DLT-OSPF command deletes an Open Shortest-Path First (OSPF) routing entity.

Note The OSPF entity must be in the OOS-MA state, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-OSPF:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-OSPF:BTI7000:OSPF-1-5:100:::CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------|----------------------|----------------|
| aid | The access identifier | OSPF-1-5 OSPF-1-3 | Not applicable |
| cmdmde | The command mode to be used | NORM FRCD | NORM |

DLT-OSPF-IF

The DLT-OSPF-IF command deletes an Open Shortest-Path First (OSPF) interface.

Note The OSPF interface must be in the OOS-MA state, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-OSPF-IF:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-OSPF-IF:BTI7000:OSPF-1-3-1:100:::CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------|---------------------------------|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(1-4). | Not applicable |
| cmdmde | The command mode to be used | NORM FRCD | NORM |

DLT-ROUTE-STATIC

The DLT-ROUTE-STATIC command deletes a statically provisioned routing table entry for an OSC module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-ROUTE-STATIC:[TID]::[CTAG]::<ipaddr>,<mask>,<nexthop>;
```

Example command

```
DLT-ROUTE-STATIC:BTI7000:OSC-1-3:100:20.0.0.0,255.0.0.0;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| ipaddr | The IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | The next hop router to which packets are routed | Four integers between 0 and 255 separated by periods | Not applicable |
| | Note NEXTHOP can also be specified as a local IP interface that causes the destination IP to be ARPed on the specified interface network. | IP-1-1-(1,2) IP-1-5-(1,2) | |

DLT-SNMP-COMMUNITY

The DLT-SNMP-COMMUNITY command deletes an SNMP community.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-SNMP-COMMUNITY:[TID]:<community>:[CTAG];
```

Example command

```
DLT-SNMP-COMMUNITY:BTI7000:public:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|----------------------|---------------------------------|----------------|
| community | The community string | 1 to 20 alphanumeric characters | Not applicable |

DLT-SNMP-TRAPRCV

The DLT-SNMP-TRAPRCV command deletes an SNMP trap receiver entry so that SNMP traps are no longer forwarded to the destination.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-SNMP-TRAPRCV:[TID]:<rcvid>:[CTAG];
```

Example command

```
DLT-SNMP-TRAPRCV:BTI7000:receiver1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------------------|---------------------------------|----------------|
| rcvid | The trap receiver identifier | 1 to 20 alphanumeric characters | Not applicable |

DLT-STMn

The DLT-STMn commands delete provisioning information for an SDH port on a Muxponder module.

Note All cross-connections associated with an SDH port must be deleted before the port can be deleted. An SDH port must be removed from service before it is deleted, otherwise the CMDMDE=FRCD parameter must be used.

Important When the provisioning information for an SDH line side port is deleted, the associated virtual concatenation groups (VCGs) are automatically created.

Note An SDH port that is involved in a timing reference cannot be deleted.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-------------|--|
| DLT-STM1 : | [TID] : < aid > : [CTAG] : : : [CMDMDE = < cmdmde >] ; |
| DLT-STM4 : | |
| DLT-STM16 : | |
| DLT-STM64 : | |

Example command

```
DLT-STM1:BTI7000:MXP-1-1-L2:100:::CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------------|---|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2,C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| cmdmde | The command mode | NORM FRCD | | NORM |

DLT-USER-SECU

The DLT-USER-SECU command deletes a user profile. BTI recommends following this sequence to delete a user profile:

- 1 Use the RTRV-ACT-USER command to check for active sessions.
- 2 Use the CANC-USER-SECU command to terminate each session to be deleted.
- 3 Use the DLT-USER-SECU command to delete the user IDs.

Note The system prevents the deletion of the last Superuser profile to ensure that there is always an account with full system access available.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-USER-SECU:[TID]:<uid>:[CTAG];
```

Example command

```
DLT-USER-SECU:BTI7000:joseph:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |

DLT-VCG

The DLT-VCG command deletes VCG provisioning information for a line side port of a Muxponder module.

Note All cross-connects associated with a VCG port must be deleted before the VCG can be deleted. A VCG must be removed from service before it is deleted.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-VCG:[TID]:<aid>:[CTAG];
```

Example command

```
DLT-VCG:BTI7000:VCG-1-1-L2-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|----------------------------------|--|----------------|
| aid | The access identifier of the VCG | VCG-(1,11,21,31)-(1,3,5...19)- (L1,L2)-(1-10) | Not applicable |

DLT-XCVR

The DLT-XCVR command deletes a transceiver port on a Transponder module.

Note The port must be in the OOS-MA state, or the CMDMDE=FRCD parameter must be used.

Note A port cannot be deleted if it has a cross-connect entity associated with it.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
DLT-XCVR:[TID]:<aid>:[CTAG]:::[CMDMDE=<cmdmde>];
```

Example command

```
DLT-XCVR:BTI7000:WR-1-1-1:100:::CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |

10.0 ED commands

This section describes edit (ED) commands for the BTI 7000 Series.

- “ED-AUTH-SERV”
- “ED-BRI”
- “ED-CRS-WCH”
- “ED-DAT”
- “ED-EQPT”
- “ED-FC”
- “ED-FE”
- “ED-FFP-OCn”
- “ED-FFP-STMn”
- “ED-FFP-XCVR”
- “ED-GCC0”
- “ED-GE”
- “ED-IP”
- “ED-NGBR”
- “ED-OA”
- “ED-OC3”
- “ED-OC12”
- “ED-OC48”
- “ED-OC192”

- “ED-ODCC”
- “ED-OL-GROUP”
- “ED-OL-OSC”
- “ED-OL-PORT”
- “ED-OSPF”
- “ED-OSPF-IF”
- “ED-PID”
- “ED-PORT”
- “ED-PWRMD”
- “ED-SER”
- “ED-SNMP-COMMUNITY”
- “ED-SNMP-TRAPRCV”
- “ED-STM1”
- “ED-STM4”
- “ED-STM16”
- “ED-STM64”
- “ED-SYS”
- “ED-USER-SECU”
- “ED-VCG”
- “ED-WCH”
- “ED-WDM”
- “ED-XCVR”

ED-AUTH-SERV

The ED-AUTH-SERV command edits provisioning information for an authentication server.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-AUTH-SERV:[TID]:<aid>:[CTAG]::[ROLE=<role>], [PORT=<port>],
[KEY=<key>], [TIMEOUT=<timeout>], [RETRY=<retry>]
```

Example command

```
ED-AUTH-
SERV:BTI7000:10.64.6.28:100::ROLE=primary,PORT=2000,KEY=testing123,TIMEOUT=10
,RETRY=3;
```

Parameters

| Parameter | Description | Range | Default |
|---|--|--|----------------|
| aid | IP address of the authentication server. | A valid IPv4 address. | Not applicable |
| role | The role of the authentication server. | Disabled Primary: The first server contacted to check authentication. Secondary: The second server contacted if the primary cannot be reached. Tertiary: The third server contacted if the primary and secondary cannot be reached. | Not applicable |
| port | IP port of the server. | Integer between 1 and 65535 | Not applicable |
| key | Authentication key (shared key) used to encrypt user credentials. The shared key on the RADIUS and client servers must match. | Must be 6-256 case-sensitive alphanumeric characters. The following special characters are supported: ! @ # \$ % ^ & * () _ + - = { } [] ' < > / ~ ` | Not applicable |
| Note The following characters are not supported: <ul style="list-style-type: none"> • TL1: : ; , ? • CLI: \ ! " ? | | | |
| timeout | The amount of time, in seconds, the client server waits for a response from | 1 to 10 seconds. | 5 seconds |

| Parameter | Description | Range | Default |
|-----------|---|--------|---------|
| | the authentication server, before sending another request . | | |
| retry | The number of attempts to contact a server. | 1 to 5 | 1 |

Guideline

Following are provisioning guidelines to consider:

- Provisioning a secondary and tertiary authentication server is optional.
- You can provision the authentication servers independent from each other, so that a server can be taken off-line without a change to the other servers' configurations.
- The authentication key must be set on the primary, secondary and tertiary servers. Following is how the key is displayed for this command:
 - If the default value is used, the word "default" is displayed.
 - If a character string is used, the display includes a "*" for each character; for example, if the key is 123&83hhcz71 it appears as *****.

ED-BRI

The ED-BRI command edits provisioning information for a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module.

Note All cross-connections associated with a BRI client side port must be deleted before the BRIPROTOCOL parameter can be modified. The BRI client side port must be removed from service before the WAVELENGTH and BRIPROTOCOL parameters can be modified, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-BRI:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],[C1=<custom>],
[WAVELENGTH=<wavelength>],[PHYPMON=<phypmmon>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[PEC=<pec>],
[BRIPROTOCOL=<briprotocol>],[REMOTEID=<remoteid>],[AINSTMR=<ainstmr>],
[CMDMDE=<cmdmde>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ED-BRI:BTI7000:MXP-1-1-C2:100:::ID1=IDTEST
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | Fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| briprotocol | The BRI protocol | 100FX SD-SDI HD-SDI HD-SDI-1001 DVB-ASI | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| | | Note 100FX and DVB-ASI supported for First Office Application only. | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode to be used | NORM FRCD | NORM |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

ED-CRS-WCH

The ED-CRS-WCH command edits provisioning information for wavelength-channel cross-connections.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-CRS-WCH:[TID]:[<fromAid>,<toAid>]:[CTAG]::[SERVICENAME=<serviceName>];
```

Example command

```
ED-CRS-WCH:BTI7000:ROB-1-7-L1-600,D40MD-0-1-CH:100::SERVICENAME=Channel600-E;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| fromAid | The access identifier of the wavelength channel source end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| toAid | The access identifier of the wavelength channel destination end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| serviceName | User-defined textual name of the end-to-end wavelength service, of which this cross-connection is a part | 0 to 32 alphanumeric characters. | Not applicable |



Caution

If the BTI PSM network management system is being used to manage the BTI nodes, BTI recommends that the SERVICENAME parameter should not be modified, to avoid node connection issues that could occur. If the service name must be changed, contact your BTI technical representative for assistance.

ED-DAT

The ED-DAT command edits the date and time of the network element.

Note There can be an inconsistency between the date and time reported by the TL1 and SNMP interfaces.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-DAT:[TID]::[CTAG]::[<yymmdd>],[<hhmmss>;
```

Example command

```
ED-DAT:BTI7000::100:02-11-30,13-34-00;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|--------------|
| yymmdd | The date expressed as year-month-day | yymmdd | Current date |
| | | Note The valid date range is from 70-01-01 to 36-02-06, which represents 1970-01-01 (GMT) to 2036-02-06 (GMT). | |
| hhmmss | The time expressed as hour-minute-second (24-hour clock) | hhmmss | Current time |

ED-EQPT

The ED-EQPT command edits equipment provisioning information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-EQPT:[TID]:<aid>:[CTAG]:[:<type>][:ID=<id>],[C1=<custom1>],
[C2=<custom2>],[C3=<custom3>][:<pst>][:,<sst>];
```

Example command

```
ED-EQPT:BTI7000:OLAM-1-6:100:::C1=Line amplifier for downtown link;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The access identifier | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)” | Not applicable |
| type | The product equipment code (PEC) of the equipment Note Specified connector type or channel number can be added to the PEC. | See 2.44, “Type (type)”. | Not applicable |
| id | The identifier that describes the equipment | 1 to 20 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ED-FC

The ED-FC command edits provisioning information for a Fibre Channel (FC) client side port of an 8-Port or 10-Port Muxponder module.

Note All cross-connections associated with an FC client side port must be deleted before the FCRATE parameter can be modified. The FC client side port must be removed from service before the WAVELENGTH or FCRATE parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-FC:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],[C1=<custom>],
[WAVELENGTH=<wavelength>],[PHYPMON=<phypmmon>],[FPSD=<fpsd>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[PEC=<pec>],[AINSTMTR=<ainstmtr>],[CMDMDE=<cmdmde>],[FCRATE=<fcrate>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ED-FC:BTI7000:MXP-1-3-C2:100:::ID1=IDTEST
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| fpsd | The fault propagation shutdown enabled flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| ainstmtr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| fcrate | The Fibre Channel speed and duplex rate | 1G 2G 4G | 1G |
| cmdmde | The command mode | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | not applicable |

ED-FE

The ED-FE command edits provisioning information for a Fast Ethernet (FE) client side port of a 2-Port GbE Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-FE:[TID]:<aid>:[CTAG]::[ID1=<id>],[C1=<custom1>],[REMOTEID=<remoteid>;
```

Example command

```
ED-FE:BTI7000:MXP-1-6-C3:100:::ID1=IDTEST,C1=C1TEST;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C3,C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

ED-FFP-OCn

The ED-FFP-OCn commands edit provisioning information for a protection group on a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------|---|
| ED-FFP-OC48 | [<TID>] : <work> , <protect> : [CTAG] : : : [PROTID = <protid>] ; |
| ED-FFP-OC192 | |

Example command

```
ED-FFP-OC48:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |

ED-FFP-STMn

The ED-FFP-STMn commands edit provisioning information for a protection group on an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------|---|
| ED-FFP-STM16 | [<TID>] : <work> , <protect> : [CTAG] : : : [PROTID = <protid>] ; |
| ED-FFP-STM64 | |

Example command

```
ED-FFP-STM16:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters. | Not applicable |

ED-FFP-XCVR

The ED-FFP-XCVR command edits protection group provisioning information for a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-FFP-XCVR: [<TID>]:<work>,<protect>:[CTAG]::[PROTID=<protid>]
[PSDIRN=<psdirn>];
```

Example command

```
ED-FFP-XCVR:BTI7000:WR-1-2-1,WR-1-2-3:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|---|
| work | The access identifier of the working transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protect | The access identifier of the protecting transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |
| psdirn | The protection switch direction | UNI or BI The BI option is available for line protection groups on BT7A49AA-IO2 modules, and for client protection groups on all transponder modules that support client Y-cable protection. The UNI option is available for line protection groups on BT7A49AA-IO2 modules, but is mandatory for line protection groups on all other transponders. This option is not available for client protection groups. | UNI for line protection groups BI for client protection groups |

ED-GCC0

The ED-GCC0 command edits the parameters of a provisioned GCC0 (general communication channel) service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-GCC0:[TID]:<aid>:[CTAG]:::[<mode>]:[<pst>][, <sst>];
```

Example command

```
ED-GCC0:BTI7000:TPR-1-3-3:100:::FRATE::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|---|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| mode | The framing and speed mode of the GCC connection | FRATE (full bandwidth) LRATE (192Kb/s) | Determined by the branding of the board |
| pst | The primary state of the equipment. | IS OOS | Not applicable |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ED-GE

The ED-GE command edits provisioning information for a gigabit Ethernet (GE) client side port of a Muxponder module.

Note All cross-connections associated with a GE client side port must be deleted before the GFPMODE parameter can be modified. The GE client side port must be removed from service before the WAVELENGTH, MEDIARATE, GFPMODE, and FLOWCTRL parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-GE:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],  
[MEDIARATE=<mediarate>],[C1=<custom>],[WAVELENGTH=<wavelength>],  
[PHYPMON=<phypmon>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],  
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[PEC=<pec>],  
[AINSTR=<ainstr>],[CMDMDE=<cmdmde>],[FLOWCTRL=<flowctrl>],  
[GFPMODE=<gfpmode>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],  
[<sst>];
```

Example command

```
ED-GE:BTI7000:MXP-1-6-C2:100:::ID1=IDTEST
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| mediarate | The Ethernet speed and duplex rate in Mbps | 1000FD AUTO Note AUTO is supported only when GFPMODE=GFP-F. Note When Media Rate = Auto, WAVELENGTH cannot be set to 0. | 1000FD |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| wavelength | The channel wavelength in nm | 0 (copper SFPs only) 850 to 1650 Note This parameter cannot be set to 0 when Media Rate = Auto or when Physical PM Monitoring = Enabled. Note When PST=IS, WAVELENGTH can be changed only by using CMDMDE=FRCD. | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON Note When WAVELENGTH = 0, PHYPMMON cannot be set to ON. | OFF |
| fpsd | The fault propagation shutdown enabled flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| flowctrl | The flow control setting | TRANSPARENT LOCAL Note LOCAL is supported only when GFPMODE=GFP-F. | Not applicable |
| gfpmode | The GFP type | GFP-F GFP-T Note GFPMODE cannot be changed when the port is connected. Note GFP-T is supported only when FLOWCTRL=TRANSPARENT and MEDIARATE=1000FD. | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ED-IP

The ED-IP command edits IP address information for the network element.

Note When the ED-IP command changes the IP address information, all open sessions for that interface are terminated.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-IP:[TID]:<aid>:[CTAG]::[IPADDR=<ipaddr>],[IPMASK=<ipmask>],
[MEDIARATE=<mediarate>],[C1=<custom>],[GATEWAY=<gateway>]:[<pst>],[<sst>;
```

Example command

```
ED-IP:NE-117:IP-1-5-2:100:::IPADDR=50.1.1.1,IPMASK=255.255.255.0,
MEDIARATE=AUTO, GATEWAY=10.1.1.1;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | ENET-(1,2) (management LAN) IP-NMS (management LAN) IP-CRAFT (craft LAN) IP-1-1-(1,2) (OSC ports on SCP) IP-1-5-(1,2) (OSC ports on SCP) | Not applicable |
| ipaddr | The IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| ipmask | The IP mask | Four integers between 0 and 255 separated by periods. | Not applicable |
| mediarate | The Ethernet speed and duplex rate in Mbps Note Can be used only when AID=ENET-(1,2), IP-NMS, or IP-CRAFT | See 2.22, “Media rate (Mediarate)” . | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| gateway | The gateway IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| pst | The primary state of the equipment Note: Cannot be used when AID=IP-CRAFT | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ED-LAPD

The ED-LAPD command configures LAPD inactive attributes per interface. Inactive attributes are applied and become active using the INIT-OIF command.

Although visible to the user, this command is not supported by this version of the product.



ED-NGBR

The ED-NGBR command edits the IP address of a Network Element's neighbor.

Note Only the neighbor's IP address can be modified. To modify a neighbor's keyword, the neighbor must first be deleted and then entered with the new keyword.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-NGBR:[TID]:<aid>:[CTAG]::<ipaddr>;
```

Example command

```
ED-NGBR:BTI7000:IPADDR:100::10.1.1.2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|---|----------------|
| aid | The unique keyword for the neighbor | 1 to 32 alphanumeric characters, including the hyphen (-) | Not applicable |
| ipaddr | The neighbor's IP address | Four integers between 0 and 255 separated by periods | Not applicable |

ED-NLP

The ED-NLP command edits OSI Network Layer Protocol stack parameters. The edits are applied to the inactive set of OSI parameters, which take effect only after the INIT-OIF command is issued.

Although it is visible to the user, this command is not supported by this version of the product.



ED-OA

The ED-OA command edits the parameters of an optical amplifier. The amplifier must be in the OOS-MA state, or the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OA:[TID]:<aid>:[CTAG]::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],
[GRID=<grid>],[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[OAMDE=<oamde>],[GAIN=<gain>],[PWR=<pwr>],[CHANNEL=<channel>],
[TLTCOM=<tltcom>],[CTEMP-HT=<ctempht>],[OPR-LT=<oprlt>],[OPR-HT=<oprht>],
[OPT-LT=<optlt>],[OPT-HT=<opht>],[SSIOPR-HT=<ssioprht>],[MSLOSS-
HT=<mslossht>],[SSIOPR-LT=<ssioprlt>],[FSOOPT-HT=<fsoopht>],[FSOOPT-
LT=<fsooptlt>],[AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],[REMOTEID=<remoteid>]:
[<pst>],[<sst>;
```

Example command

```
ED-OA:BTI7000:OLAM-1-6-1:100:::GAIN=18.0;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| id1 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the amplifier | DSF NDSF (SMF-28) NZDSF | Not applicable |
| grid | ITU-T wavelength grid numbers | 50 GHz | Not applicable |
| | Note | 100 GHz | |
| | Applies to DWDM amplifiers only | 200 GHz | |

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| chnls | The number of DWDM channels carried | OBA, OLA, OLAM, OPA: 0 to 40 | Not applicable |
| | Note Applies to DWDM amplifiers only | LGA, MGA, MGM: 0 to 96 | Not applicable |
| C1, C2, C3 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| oamde | The optical amplifier mode | COGAIN (constant gain) COPWR (constant power) | Not applicable |
| gain | The gain level | See 2.14, “Gain level (gain)”. | |
| pwr | The power level | See 2.38, “Power level (pwr) - output”. | |
| channel | The channel wavelength | 1530.33 to 1561.42 | Not applicable |
| | Note Applies to SBA and SPA amplifiers only | | |
| tlcom | The tilt compensation | OLA, OLAM, LGA, MGA, MGM: -3.0 to 3.0 | 0.0 |
| ctempht | The case temperature high threshold | 45°C to 75°C | 60°C |
| oprlt | The optical power received low threshold | See 2.30, “Optical power received low threshold (oprlt)”. | |
| oprht | The optical power received high threshold | See 2.29, “Optical power received high threshold (oprht)”. | |
| optlt | The optical power transmitted low threshold | See 2.32, “Optical power transmitted low threshold (optlt)”. | |
| optht | The optical power transmitted high threshold | See 2.31, “Optical power transmitted high threshold (optht)”. | |
| ssioprhth | The second stage input optical power received high threshold | OLAM: -16 to 7 | 5.5 |
| | | MGM: -27 to 20 | 20 |
| mslossht | The mid-stage loss high threshold | OLAM: 5 to 15 | 15 |
| | | MGM: 5 to 18 | 16 |
| ssioprlt | The second stage input optical power received low threshold | MGM: -30 to 17 | -30 |
| fsooptht | The first stage output optical power transmitted high threshold | MGM: -7 to 20 | 20 |
| fsooptlt | The first stage output optical power transmitted low threshold | MGM: -10 to 15 | 15 |
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode (applies to ED-OA command) | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| pst | The primary state of the equipment | IS: In-service | Not applicable |

| Parameter | Description | Range | Default |
|---------------------|--------------------------------------|-------------------------------|----------------|
| OOS: Out-of-service | | | |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

Note Gain, power, and threshold parameters can be set to one decimal of accuracy.

ED-OC3

The ED-OC3 command edits provisioning information for an OC-3 port of an 8-Port or 10-Port Muxponder – SONET module.

Note All cross-connects associated with an OC-3 port must be deleted before the TOHTRANSPARENCY parameter can be modified.

The OC-3 client side port must be removed from service before the WAVELENGTH and TOHTRANSPARENCY parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OC3:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],[C1=<custom>],
[WAVELENGTH=<wavelength>],[PHYPMON=<phyppmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[CMDMDE=<cmdmde>],[REMOTEID=<remoteid>],[LOWPASSFILTER=<lowpassfilter>],
[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ED-OC3:BTI7000:MXP-1-1-C1:100:::ID1=IDTEST;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phyppmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-----------------|---|---|------------------------------|
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| lowpassfilter | An input signal filter used to support interoperability with only the Juniper equipment model ERX-1440. Note Low-pass filtering is supported only on OC3, and configured only on ports C1, C2, and C3. | ON OFF Note LOWPASSFILTER cannot be changed when the client is connected, in loopback, and when the client is not in a maintenance state (OOS-MA). The CMDMDE=FRCD option cannot be used. | OFF |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ED-OC12

The ED-OC12 command edits provisioning information for an OC-12 port of an 8-Port or 10-Port Muxponder – SONET module.

Note All cross-connects associated with an OC-12 port must be deleted before the TOHTRANSPARENCY and DCCTTRANSPARENCY parameters can be modified.

The OC-12 client side port must be removed from service before the WAVELENGTH, TOHTRANSPARENCY, and DCCTTRANSPARENCY parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OC12:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransparency>],
[DCCTTRANSPARENCY=<dccttransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[CMDMDE=<cmdmde>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],
[<sst>];
```

Example command

```
ED-OC12:BTI7000:MXP-1-1-C1:100::ID1=IDTEST;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. fibertype ”. | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |

| Parameter | Description | Range | Default |
|---------------------|---|--|------------------------------|
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) | NO |
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated. | YES (handled transparently) NO (terminated and regenerated) | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 12 | 1 |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-OC48

The ED-OC48 command edits provisioning information for an OC-48 port on a Muxponder module.

Note All cross-connects associated with an OC-48 port must be deleted before the LINEMAPPING, TOHTRANSPARENCY, and DCCTransparency parameters can be modified.

The OC-48 port must be removed from service before the WAVELENGTH, TOHTRANSPARENCY, and DCCTransparency parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Note The LINEMAPPING parameter cannot be changed when line protection is enabled.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OC48:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransparency>],[PEC=<pec>],
[AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],[LINEMAPPING=<linemapping>],
[DCCTransparency=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],[<sst>];
```

Example command

```
ED-OC48:BTI7000:MXP-1-1-L1:100::ID1=IDTEST;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10^{-5} to 10^{-8} MXP10: 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | YES (transported transparently) NO (terminated and regenerated) | NO |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| linemapping | The OTN configuration of the line port Note Applies only to 8-Port Multiprotocol Muxponders. | NONE (no OTN digital wrapper is added to the port) OTU1 (SONET/SDH into and OTU1 frame) SUBODU1-OTU1 (no SONET/SDH framing; four ODU1s into an OTU1 frame) Note Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port. | NONE |

| Parameter | Description | Range | Default |
|---------------------|--|--|------------------------------|
| dcctransparency | Specifies whether the Section DCC (SDCC), specifically the D1, D2, and D3 bytes, for the synchronous client is transparently transported. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | YES NO | YES NO |
| transparencychannel | The channel on which DCC transparency is transported Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | 1 to 48 | 1 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-OC192

The ED-OC192 command edits provisioning information for an OC-192 line side port on a 10-Port Multiprotocol Muxponder – SONET module.

Note All cross-connections associated with an OC-192 line side port must be deleted before the LINEMAPPING parameter can be modified.

The OC-192 line side port must be removed from service before the LINEMAPPING parameter can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Note The LINEMAPPING parameter cannot be changed when line protection is enabled.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OC192:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[PEC=<pec>],[AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],
[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>;]
```

Example command

```
ED-OC192:BTI7000:MXP-11-3-L1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | Nontunable XFPs: 850 to 1650 Tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| phypmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|---|------------------------------|
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an OC-192 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-ODCC

The ED-ODCC command is used to edit provisioning information for the OSC Data Communication Channel on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-ODCC:  
[TID]:<aid>:[CTAG]::::[<pst>];
```

Example command

```
ED-ODCC:BTI7000:ROB-1-7-L1::::OOS;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the ODCC object on DOL OSC. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| pst | The primary state of the DOL | IS: In-service OOS: Out-of-service | Not applicable |

ED-OL-GROUP

The ED-OL-GROUP command is used to edit provisioning information for a DOL group.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OL-GROUP:[TID]:<aid>:CTAG::[<type>]:[ID=<id>], [C1=<custom1>] ,  
[C2=<custom2>], [C3=<custom3>];
```

Example command

```
ED-OL-GROUP:BTI7000:55:100::ID=NORTHWEST;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| aid | The access identifier of the DOL group | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| type | Non-equalizing Terminal | NOEQLZTERM | Not applicable |
| | Channel Equalizing Terminal | EQLZTERM | |
| | Line Amplifier Node | NOEQLZLINE | |
| | Channel Equalizing Line Node | EQLZLINE | |
| | Reconfigurable Add/Drop Node | ROADM | |
| id | The identifier that describes the equipment | 1 to 32 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |

ED-OL-OSC

The ED-OL-OSC command is used to edit provisioning information for OSC facilities on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OL-OSC:[TID]:<aid>:[CTAG]::[ID=<id>],[C1=<custom1>],[C2=<custom2>],
[C3=<custom3>],[EXPFESID=<expfesid>],[EXPFEIP=<expfeip>],
[EXPFEGRP=<expfegrp>],[EXPFEDEGR=<expfedegr>],[AINSTMR=<ainstmr>],
[FEIMMON=<feimmon>]:[<pst>],[<sst>;
```

Example command

```
ED-OL-OSC:BTI7000:ROB-1-7-L1:100::C1=Line amplifier for downtown link;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the OSC on a ROB or DLA module. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| id | The user-defined textual identifier of the OSC object. | 1 to 32 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| expfesid | The expected far end node System Identifier. | 0 to 20 alphanumeric characters | Not applicable |
| expfeip | The expected NMS IP address of the expected far end node. | Valid IP address | Not applicable |
| expfegrp | The expected DOL group number, on the far end node to which the OSC span interfaces. | 0 to 255 | Not applicable |
| expfedegr | The expected DOL degree number within the identified group, on the far end node to which the OSC span interfaces. | 0 to 4 | Not applicable |
| ainstmr | The automatic in-service timer for the OSC, in the format HH-MM | 00-00 to 96-00 | Not applicable |
| feimmon | Monitors for a far end node ID mismatch | ON: Enables alarm OFF: Disables alarm | Not applicable |
| pst | The primary state of the equipment | IS IS-ANR IS-NR | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| | | OOS | |
| | | OOS-AU | |
| | | OOS-AUMA | |
| | | OOS-MA | |
| | | OOS-MAANR | |
| | | Note | |
| | | IS and OOS support only input values, and specify the administrative status. All other values support only output, and report the operational status. | |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ED-OL-PORT

The ED-OL-PORT command is used to edit provisioning information for a port on a DOL module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OL-PORT:[TID]:<aid>:[CTAG]::[ID=<id>],[C1=<c1>],[C2=<c2>],[C3=<c3>],
[DWDMTYPE=<dwdmtype>],[GRID=<grid>],[REMOTEID=<remoteid>];
```

Example command

```
ED-OL-PORT:BTI7000:ROB-1-7-DCM:100:::ID=ROB
PORT;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the DOL optical port | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| id | The identifier that describes the equipment | 1 to 20 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| dwdmtype | The type of line port connection | <ul style="list-style-type: none"> NATIVE: Inter-node connections between DLA and ROB modules. ALIEN: Inter-node connections to other DOL modules within a DOL group, or to connect to non-DOL equipment at the same site. | Not applicable |
| grid | The DWDM grid spacing | 100 GHz | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

ED-OSPF

The ED-OSPF command edits the parameters of a provisioned Open Shortest-Path First (OSPF) routing entity.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OSPF:[TID]:<aid>:[CTAG]:::  
[RTRID=<rtrid>][,REDIST=<redist>][,STUB=<stub>][:[<pst>]];
```

Example command

```
ED-OSPF:BTI7000:OSPF-1-5:100:::RTRTID=10.11.12.1,  
REDIST=ALL,STUB=Y;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | OSPF-1-3 OSPF-1-5 | Not applicable |
| rtrid | The router identifier IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| redist | The route redistribution indicator Note The routes are redistributed as external to the autonomous system. | See 2.35, “ OSPF redistribution type (OSPFRedist) ”. | NONE |
| stub | The OSPF stub area indicator | Y N | N |
| pst | The primary state of the equipment | IS OOS | Not applicable |

ED-OSPF-IF

The ED-OSPF-IF command edits a provisioned Open Shortest-Path First (OSPF) interface.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-OSPF-IF:[TID]:<aid>:[CTAG]:::[PRIORITY=<priority>] [,HELLOINT=<helloint>]  
[,DEADINT=<deadint>][,RETRINT=<retrint>] [,TRSTDEL=<trstdel>][,COST=<cost>][:  
[<pst>]];
```

Example command

```
ED-OSPF-IF:BTI7000:OSPF-1-3-1:100:::PRIORITY=2,HELLOINT=11, DEADINT=50;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------------------------|--------------------------------|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| priority | The priority of this interface | 0 to 255 | Not applicable |
| helloint | The hello interval | 1 to 65535 | Not applicable |
| deadint | The dead interval | 1 to 65535 | Not applicable |
| retrint | The retransmission interval | 1 to 3600 | Not applicable |
| trstdel | The transit delay | 1 to 3600 | Not applicable |
| cost | The cost | 1 to 65535 | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |

ED-PID

The ED-PID command edits the password of the active user.

Note The password change comes into effect after the user logs out of the system.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-PID:[TID]:<uid>:[CTAG]:<oldpid>,<newpid>;
```

Example command

```
ED-PID:BTI7000:joseph:100::*****,*;;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |
| oldpid | The password identifier to be changed | 6 to 10 case-sensitive alphanumeric characters and special characters | Not applicable |
| newpid | The new password identifier | 6 to 10 case-sensitive alphanumeric characters and special characters | Not applicable |

Note
Although the default system password contains five characters, BTI recommends using a password that contains a minimum of six characters.

Note
All special characters are supported except hyphen (-), equals sign (=), semicolon (;), colon (:), apostrophe ('), quotation mark ("), comma (,), question mark (?).

Guideline

Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface).

ED-PORT

The ED-PORT command edits the port of a passive module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-PORT:[TID]:<aid>:[CTAG]::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],
[GRID=<grid>],[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[REMOTEID=<remoteid>;
```

Example command

```
ED-PORT:BTI7000:C1ADM-1-3-1:100:::C1=Under Test;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier | See 2.36, “Port AID (aid) for passive modules”. | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the port | DSF NDSF (SMF-28) NZDSF | Not applicable |
| grid | ITU-T wavelength grid numbers | 50 GHz | Not applicable |
| | Note | 100 GHz | |
| | Applies to DWDM multiplexers only | 200 GHz | |
| chnls | The number of DWDM channels | 0 to 40 | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

ED-PWRMD

The ED-PWRMD command allows the user to set the power mode for both rails (A and B).

Note When the power mode is set to DC or NONE, the AC power unit alarms and conditions are suppressed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-PWRMD:[TID]:<aid>:[CTAG]:::[FEEDA=<feeda>],[FEEDB=<feedb>];
```

Example command

```
ED-PWRMD:BTI7000:MS-1:100:FEEDA=AC,FEEDB=NONE;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--------------------------------|----------------|
| aid | The access identifier | MS-1, ES-{11, 12, 13} | Not applicable |
| feeda | The power mode setting for power feed A | DC, AC, NONE, BOTH (AC and DC) | DC |
| feedb | The power mode setting for power feed B | DC, AC, NONE, BOTH (AC and DC) | DC |

ED-SER

The ED-SER command edits the serial port information of the network element. This can result in temporary loss of contact with the network element. As a result, operators must update the settings on their PCs or laptops accordingly.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-SER:[TID]:<aid>:[CTAG]:::[RATE=<rate>][,DATABITS=<databits>]  
[,PARITY=<parity>][,STOPBITS=<stopbits>];
```

Example command

```
ED-SER:BTI7000:SER-1:100:::RATE=9600,DATABITS=8,PARITY=NONE, STOPBITS=1;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------|------------------------------|----------------|
| aid | The access identifier | SER-1 | Not applicable |
| rate | The baud rate | See 2.3, “Baud rate (rate)”. | 9600 |
| databits | The number of data bits | 7 8 | 8 |
| parity | The serial parity value | EVEN ODD NONE | NONE |
| stopbits | The number of stop bits | 1 or 2 | 1 |

ED-SNMP-COMMUNITY

The ED-SNMP-COMMUNITY command allows the user to modify SNMP community parameters.



Syntax

```
ED-SNMP-COMMUNITY:[TID]:<community>:[CTAG]::[<access>];
```

Example command

```
ED-SNMP-COMMUNITY:BTI7000:OSPREY:100::READ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|---------------------------------|----------------|
| community | The community string | 1 to 20 alphanumeric characters | Not applicable |
| access | The access level for this community | READ WRITE | Not applicable |

ED-SNMP-TRAPRCV

The ED-SNMP-TRAPRCV command allows the user to modify SNMP trap receiver entity parameters.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-SNMP-TRAPRCV:[TID]:<rcvid>:[CTAG]::[<ipaddr>],[<community>],[<version>] :
[PORT=<port>],[NOTIFYTYPE=<notiftype>],[TTL=<t1>];
```

Example command

```
ED-SNMP-TRAPRCV:BTI7000:receiver1:100::10.1.1.1,public, V2C:PORT=162,
NOTIFYTYPE=TRAP,TTL=12-00;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| rcvid | The receiver identifier | 1 to 20 alphanumeric characters | Not applicable |
| ipaddr | The IP address to which traps are to be directed | Four integers between 0 and 255 separated by periods | Not applicable |
| community | The community string to be included in the trap PDU | 1 to 20 alphanumeric characters | Not applicable |
| version | The SNMP message version | V1 V2C V3 | Not applicable |
| port | The destination port number | Integer between 1 and 65535 | 162 |
| notiftype | The type of PDU notifications used for this receiver | TRAP INFORM | TRAP |
| | | Note INFORM applies only when VERSION = VC2. | |
| t1 | The time to live | hh-mm | 00-00 |
| | | Note When TTL is not specified or is set to 00-00, the trap receiver persists indefinitely. | |

ED-STM1

The ED-STM1 command edits provisioning information for an STM-1 port of an 8-Port or 10-Port Muxponder – SDH module.

Note All cross-connects associated with an STM-1 port must be deleted before the TOHTRANSPARENCY parameter can be modified.

The STM-1 client side port must be removed from service before the WAVELENGTH and TOHTRANSPARENCY parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-STM1:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[ C1=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmmon>],
[ SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransparency>],[PEC=<pec>],
[ AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],[REMOTEID=<remoteid>],
[ LASERCTRL=<laserctrl>]:[<pst>],[<sst>];
```

Example command

```
ED-STM1:BTI7000:MXP-1-1-C1:100::ID1=idtest;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. Fiber type (fiber, fibertype) ”. | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-----------------|---|--|------------------------------|
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) | NO |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ED-STM4

The ED-STM4 command edits provisioning information for an STM-4 port of an 8-Port or 10-Port Muxponder – SDH module.

Note All cross-connects associated with an STM-4 port must be deleted before the TOHTRANSPARENCY and DCCTRANSPARENCY parameters can be modified.

The STM-4 client side port must be removed from service before the WAVELENGTH, TOHTRANSPARENCY, and DCCTRANSPARENCY parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-STM4:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransparency>],
[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[CMDMDE=<cmdmde>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],
[<sst>];
```

Example command

```
ED-STM4:BTI7000:MXP-1-1-C1:100::ID1=idtest;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |

| Parameter | Description | Range | Default |
|---------------------|---|--|------------------------------|
| sdber | The signal degrade bit error rate threshold | 10 ⁻⁵ to 10 ⁻¹² | 10 ⁻⁶ |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) | NO |
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated. | YES (handled transparently) NO (terminated and regenerated) | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 4 | 1 |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-STM16

The ED-STM16 command edits provisioning information for an STM-16 line side port of an SDH Muxponder module.

Note All cross-connects associated with an STM-16 port must be deleted before the LINEMAPPING, TOHTRANSPARENCY, and DCCTRANSPARENCY parameters can be modified.

The STM-16 port must be removed from service before the WAVELENGTH, TOHTRANSPARENCY, and DCCTRANSPARENCY parameters can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Note The LINEMAPPING parameter cannot be changed when line protection is enabled.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-STM16:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransparency>],[PEC=<pec>],
[AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],[LINEMAPPING=<linemapping>],
[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ED-STM16:BTI7000:MXP-1-6-L1:100:::ID1=idtest;
```


Parameters

| Parameter | Description | Range | Default |
|-----------------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10^{-5} to 10^{-8} MXP10: 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | YES (transported transparently) NO (terminated and regenerated) | NO |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| linemapping | The OTN configuration of the line port Note Applies only to 8-Port Multiprotocol Muxponder. | NONE (no OTN digital wrapper is added to the port) OTU1 (SONET/SDH into and OTU1 frame) SUBODU1-OTU1 (no SONET/SDH framing; four ODU1s into an OTU1 frame) Note Although LINEMAPPING is associated with each line, the value will always be the same | NONE |

| Parameter | Description | Range | Default |
|---------------------|--|---|------------------------------------|
| | | for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port. | |
| dcctransparency | Specifies whether the Section DCC (SDCC), specifically the D1, D2, and D3 bytes, for the synchronous client is transparently transported. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | YES NO | YES NO |
| transparencychannel | The channel on which DCC transparency is transported Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | 1 to 16 | 1 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-STM64

The ED-STM64 command edits provisioning information for an STM-64 port on a 10-Port Multiprotocol Muxponder – SDH module.

Note All cross-connections associated with an STM-64 line side port must be deleted before the LINEMAPPING parameter can be modified.

The STM-64 line side port must be removed from service before the LINEMAPPING parameter can be modified. Otherwise, the CMDMDE=FRCD parameter must be used.

Note The LINEMAPPING parameter cannot be changed when line protection is enabled.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-STM64:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],[WAVELENGTH=<wavelength>],[PHYPMON=<phypmon>],
[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[PEC=<pec>],[AINSTMR=<ainstmr>],[CMDMDE=<cmdmde>],
[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>];
```

Example command

```
ED-STM64:BTI7000:MXP-11-3-L1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | Nontunable XFPs: 850 to 1650 Tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| phypmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|---|------------------------------|
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode | NORM FRCD | NORM |
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an OC-192 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ED-SYS

The ED-SYS command edits system-wide provisioning information for the network element (NE), including NE identifier, NE name, gateway IP address, site identifier, site name, time zone, automatic daylight savings time, and auto provisioning.

Note The NENAME parameter can also be changed using the SET-SID command.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-SYS:[TID]::[CTAG]:::[NEID=<neid>],[NENAME=<neiname>],[GATEWAY=<gateway>],
[SECGATEWAY=<secgateway>],[SITEID=<siteid>],[SITENAME=<sitename>],[TZ=<tz>],
[AUTODST=<autodst>],[AUTOP=<autop>],[AINSTMR=<ainstmr>],[STP=<stp>],
[FPDETECT=<fpdetect>],[CONTACT=<contact>],[HTAS=<htas>];
```

Example command

```
ED-SYS:BTI7000::100::NEID=34,NENAME=Trenton02,
GATEWAY=156.12.4.12,SITEID=572,SITENAME=Trenton,TZ=USAEASTERN,AUTODST=Y;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| neid | The network element identifier | 0 to 65535 | Not applicable |
| nename | The network element name. Note Embedded blank spaces are not supported, but a hyphen is an acceptable substitution character for a space. | 1 to 20 alphanumeric characters | Not applicable |
| gateway | The gateway IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| secgateway | The secondary gateway IP address Note SECGATEWAY is used for OSC functionality only. | Four integers between 0 and 255 separated by periods | Not applicable |
| siteid | The site identifier | 0 to 65535 | Not applicable |
| sitename | The site name | 1 to 20 alphanumeric characters | Not applicable |
| tz | The time zone name | See Appendix B, "Time zones" . | Not applicable |
| autodst | The auto daylight savings time parameter | Y N | Not applicable |
| autop | The auto provisioning flag | AINS IS | AINS |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| | | OOS OFF | |
| ainstmr | The automatic in-service timer in the format hours-minutes | 00-00 to 96-00 | 08-00 |
| stp | The spanning tree protocol indicator | ON OFF | OFF |
| fpdetect | Filler pack detection | ON OFF | OFF |
| contact | The contact information for the NE | A text string containing up to 256 characters | Not applicable |
| htas | Specifies whether or not to shutdown a module when it exceeds the high temperature automatic shutdown threshold. | ON OFF | ON |

ED-USER-SECU

The ED-USER-SECU command edits the security parameters associated with a user.

Note The system prevents the editing and disabling of the last Superuser profile to ensure that there is always an account with full system access available. The only parameter of the last Superuser profile that can be modified is the password identifier (PID) parameter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-USER-SECU:[TID]:<uid>:[CTAG]:[<nuid>],[<pid>],[<uap>]:
[TIMEOUT=<timeout>];
```

Example command

```
ED-USER-SECU:BTI7000:beatrice:100:<nuid>,* * * * *,,<uap>:TIMEOUT=16;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters Note This value must not match the value of the parameter PID. | Not applicable |
| nuid | Not supported in this release | Not applicable | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| pid | <p>The password identifier, which is a confidential code to qualify the authorized system user to access the account specified by the user ID</p> <p>Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface).</p> | <p>6 to 10 case-sensitive alphanumeric characters and special characters</p> <p>Note Although the default system password contains five characters, if the default is modified, the new password must contain a minimum of six characters.</p> <p>Note All special characters are supported except hyphen (-), equals sign (=), semicolon (;), colon (:), apostrophe ('), quotation mark ("), comma (,), question mark (?) .</p> | Not applicable |
| uap | The user access privilege | See 2.45, " User access privilege (uap) ". | SURVEILLANCE |
| timeout | The user inactivity timeout in minutes | 0 (disabled) 5 to 60 | Not applicable |

ED-VCG

The ED-VCG command edits VCG provisioning information for a line side port of a Muxponder module. A VCG is editable only if it is not connected.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-VCG:[TID]:AID:[CTAG]::VCGTYPE=<vcgtype>,TSINDEX=<tsindex>;
```

Example command

```
ED-VCG:BTI7000:VCG-11-3-L1-1:100::VCGTYPE=STS1C22V,TSINDEX=1&&22
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the line side port | VCG-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-10) | Not applicable |
| VCGTYPE | The VCG type | See 2.46, “VCG Type (vcgtype)”. | Not applicable |
| TSINDEX | The range of time-slot indices | Comma separated set of ranges or individual STS1/STS3c/VC4 indices, where a comma is indicated by & and a range is indicated by &&. For example, 89&&110 specifies the time-slot 89 to 100. | Not applicable |

ED-WCH

The ED-WCH command is used to edit provisioning information for wavelength channel facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-WCH:[TID]:<aid>:[CTAG]:::[ID=<id>], [C1=<custom1>], [C2=<custom2>],  
[C3=<custom3>], [BITRATE=<bitrate>], [GRID=<grid>], [AINSTMR=<ainstmr>]:  
[<pst>],[<sst>;
```

Example command

```
ED-WCH:BTI7000:ROB-1-7-C1-590:100:::ID=NORTHWEST;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|--|
| aid | The access identifier of the wavelength channel that is an endpoint to a cross-connection | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| id | The user-defined textual identifier of the wavelength channel object. | 0 to 32 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| bitrate | The bitrate of the carried signal. | 10 Gbps (gigabits per second) | 10 Gbps |
| grid | The minimum grid spacing, with which the channel is compatible. | 100 GHz (gigahertz) | 100 GHz |
| ainstmr | The automatic in-service timer for the wavelength channel, in the format of HH-MM | 00 to 96 | 8 hours, only if automatic in-service (AINS) is provisioned. |
| pst | The primary administrative state of the equipment | IS: In-service OOS: Out-of-service | Not applicable |
| sst | The secondary state of the equipment | AINS: Auto-in-service | Not applicable |

ED-WDM

The ED-WDM command is used to edit provisioning information for WDM entities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-WDM:[TID]:<aid>:[CTAG]::[ID=<id>],[C1=<custom1>],[C2=<custom2>],
[C3=<custom3>],[FIBER=<fiber>],[SPANLOSSRX-HT=<spanlossrxHt>],
[AINSTMTR=<ainstmtr>,[CMDMDE=<cmdmde>]:[<pst>],[<sst>];
```

Example command

```
ED-WDM:BTI7000:ROB-1-7-L1:100:::ID=ROADM NODE;
```

Parameters

| Parameter | Description | Range | Default |
|---------------|--|--|--|
| aid | The access identifier of the WDM facility | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| id | The identifier that describes the equipment | 1 to 20 alphanumeric characters | Not applicable |
| Cn | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| fiber | The fiber type of the line span | SMF: Single Mode Fiber | Not applicable |
| spanlossrx-ht | The user-defined span loss high threshold, in dB, for the receive fiber It is recommended to set the Span Loss Alarm Threshold value to be between the Measured and the Max Supported Span Loss value. | 0.0 to 35.0 db | Not applicable |
| | Note The provisionable Span Loss Alarm Threshold maximum value is 35dB. For spans involving DLA2s the maximum value is 30dB. In this case, it is recommended to provision the threshold under 30dB . | | |
| ainstmtr | The automatic in-service (AINS) timer, in the format HH-MM | 00-00 to 96-00 | 8 hours, only if AINS is provisioned. Otherwise, not applicable. |
| cmdmde | The command mode type | NORM FRCD | Not applicable |
| pst | The primary state of the equipment | IS: In-service | Not applicable |

| Parameter | Description | Range | Default |
|---------------------|--------------------------------------|-------------------------------|----------------|
| OOS: Out-of-service | | | |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ED-XCVR

The ED-XCVR command edits a port on a Transponder module.

Note You cannot edit the **PROTOCOL** parameter if a cross-connect entity is associated with the transceiver.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ED-XCVR:[TID]:<aid>:[CTAG]::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],[GRID=<grid>],[C1=<custom1>],
[C2=<custom2>],[C3=<custom3>],[PROTOCOL=<protocol>],[WAVELENGTH=<wavelength>],
[PHYPMON=<phypmon>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[PEC=<pec>],[SDBER=<sdber>],[AINSTM=<ainstm>],
[CMDMDE=<cmdmde>],[EXPECTEDTRC=<expectedtrc>],[OUTGOINGTRC=<outgoingtrc>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>];
```

Example command

```
ED-XCVR:BTI7000:WR-1-1-1:100:::WAVELENGTH=1530,CMDMDE=FRCD;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the port | DSF NDSF (SMF-28) NZDSF MULTIMODE | Not applicable |
| grid | The ITU-T wavelength grid number | 20 nm | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| protocol | The protocol | See 2.40, "Protocol (Protocol) for Transponder modules". Note When port is not in the OOS-MA state, CMDMDE=FRCD is required to change the PROTOCOL value. | Not applicable |
| wavelength | The channel wavelength in nm | 0 (copper SFPs only) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|---------|
| | | <p>Nontunable XFPs and noncopper SFPs: 850 to 1650</p> <p>Tunable XFPs: 1529.55 to 1560.61</p> <p>Note</p> <p>This parameter cannot be set to 0 when PHYPMON or FPSD = ON.</p> <p>Note</p> <p>When port is not in the OOS-MA state, CMDMDE=FRCD is required to change the WAVELENGTH value.</p> | |
| phypmmon | The threshold crossing alarm monitoring flag | <p>OFF</p> <p>ON</p> <p>Note</p> <p>When WAVELENGTH = 0, PHYPMON cannot be set to ON.</p> | OFF |
| fpsd | The on/off state of fault propagation shutdown | <p>OFF</p> <p>ON</p> <p>Note</p> <p>For information about FPSD and laser status, see the <i>Transponder Solutions Guide</i>.</p> <p>Note</p> <p>When WAVELENGTH = 0, FPSD cannot be set to ON.</p> <p>Note</p> <p>When PROTOCOL= 10GELAN, FPSD=ON by default.</p> | OFF |

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters Note When port is not in the OOS-MA state, CMDMDE=FRCD is required to change any VENDORPN value. | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code | 1 to 11 alphanumeric characters | Not applicable |
| sdber | The signal degrade BER threshold | 10GELAN, 10GFC: 10MINUS4 (10 ⁻⁴) 10GELAN, 10GFC: 10MINUS4 (10 ⁻⁴) OC192FEC, STM64FEC, 10GELANFEC, OC192EFEC, STM64EFEC, 10GELANEFEC, OTU2FEC: 10MINUS6 (10 ⁻⁶) to 10MINUS10 (10 ⁻¹⁰) | Not applicable |
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | 08-00 |
| expectedtrc | The label for the expected section trace. | 1 to 15 alphanumeric characters | Not applicable |
| outgoingtrc | The label for the section trace. | 1 to 15 alphanumeric characters | Not applicable |
| cmdmde | The command mode | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

11.0 ENT commands

This section describes enter (ENT) commands for the BTI 7000 Series.

- “ENT-AUTH-SERV”
- “ENT-BRI”
- “ENT-CRS-ODU1”
- “ENT-CRS-STSn/STSnC”
- “ENT-CRS-SUBODU1”
- “ENT-CRS-VCn/VCnC”
- “ENT-CRS-VCG”
- “ENT-CRS-WCH”
- “ENT-CRS-XCVR”
- “ENT-EQPT”
- “ENT-FC”
- “ENT-FE”
- “ENT-FFP-OCn”
- “ENT-FFP-STMn”
- “ENT-FFP-XCVR”
- “ENT-GCC0”
- “ENT-GE”
- “ENT-IP”
- “ENT-NGBR”

- “ENT-NTPASSOC”
- “ENT-OA”
- “ENT-OC3”
- “ENT-OC12”
- “ENT-OC48”
- “ENT-OC192”
- “ENT-ODCC”
- “ENT-OL-GROUP”
- “ENT-OL-EQPT”
- “ENT-OL-PORT”
- “ENT-OSPF”
- “ENT-OSPF-IF”
- “ENT-ROUTE-STATIC”
- “ENT-SNMP-COMMUNITY”
- “ENT-SNMP-TRAPRCV”
- “ENT-STM1”
- “ENT-STM4”
- “ENT-STM16”
- “ENT-STM64”
- “ENT-USER-SECU”
- “ENT-VCG”
- “ENT-XCVR”

ENT-AUTH-SERV

This command provisions an authentication server.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-AUTH-SERV:[TID]:<aid>:[CTAG]::[ROLE=<role>], [PORT=<port>], [KEY=<key>],
[TIMEOUT=<timeout>], [RETRY=<retry>]
```

Example command

```
ENT-AUTH-SERV:BTI7000:10.64.6.28:100::ROLE=secondary,PORT=3000,KEY=michigan123,TIMEOUT=10,RETRY=3;
```

Parameters

| Parameter | Description | Range | Default |
|---|--|--|----------------|
| aid | IP address of the authentication server. | A valid IPv4 address. | Not applicable |
| role | The role of the authentication server. | Disabled: No role assigned. Primary: The first server contacted to check user authentication. Secondary: The second server contacted if the primary cannot be reached. Tertiary: The third server contacted if the primary and secondary cannot be reached. | Disabled |
| port | Optional. IP port of the authentication server. | Integer between 1 and 65535. | 1812 |
| key | Authentication key (shared secret) used to encrypt user credentials. The shared keys on the RADIUS and client servers must match. | Must be 6-256 case-sensitive alphanumeric characters. The following special characters are supported: ! @ # \$ % ^ & * () _ + - = { } [] ' < > / ~ ` | testing123 |
| Note The following characters are not supported: <ul style="list-style-type: none"> TL1: ; , ? CLI: \ ! " ? | | | |
| timeout | The amount of time, in seconds, the client server waits for a response from | 1 to 10 seconds. | 5 seconds |

| Parameter | Description | Range | Default |
|-----------|--|--------|---------|
| | the authentication server, before sending another request. | | |
| retry | The number of attempts to contact a server. | 1 to 5 | 1 |

Guideline

Following are provisioning guidelines to consider:

- Provisioning a secondary and tertiary authentication server is optional.
- You can provision the authentication servers independent from each other, so that a server can be taken off-line without a change to the other servers' configurations.
- The authentication key must be set on the primary, secondary and tertiary servers. Following is how the key is displayed for this command:
 - If the default value is used, the word "default" is displayed.
 - If a character string is used, the display includes a "*" for each character; for example, if the key is 123&83hhcz71 it appears as *****.

ENT-BRI

The ENT-BRI command enters provisioning information for a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-BRI:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[PEC=<pec>],BRIPROTOCOL=<briprotocol>,[AINSTMR=<ainstmr>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-BRI:BTI7000:MXP-1-1-C1:100::WAVELENGTH=1559.79,BRIPROTOCOL=100FX;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The source access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | Fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|------------------------------|
| briprotocol | The BRI protocol | 100FX SD-SDI HD-SDI HD-SDI-1001 DVB-ASI Note 100FX and DVB-ASI supported for First Office Application only. | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-CRS-ODU1

ODU1 cross connect provisioning is available on all 10-Port Multiprotocol Muxponders when the module is provisioned with ODU1-OTU2 line mapping on both Line ports and type 2WAY.

The table below shows the supported ODU1 cross connections for BT7A48AA-I02 and BT7A48BA-I02 modules.

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---|-----------------------|
| Line 1 SONET/SDH ODU1 | Source and Destination quadrant must be the same. One pass-through cross connect of this type can be provisioned. | Line 2 SONET/SDH ODU1 |
| Line 1 SONET /SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |
| Line 2 SONET/ SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |

Note On NE shelves running release 13.1 and lower, ODU1 pass-through connections are not supported on BT7A48AA-I02 and BT7A48BA-I02 modules. ODU1 add / drop cross connections are supported on Line 1 only.

The table below shows the supported ODU1 cross connections for BT7A48AA, BT7A48BA and BT7A48DA modules

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---------------------------|-------------|
| Line 1 SONET/ SDH ODU1 | ODU1#1 | Client 1 |
| Line 1 SONET/ SDH ODU1 | ODU1#2 | Client 2 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 3 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 4 |

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-CRS-ODU1:[TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>;
```

Example command

The following shows an example of an ODU1 pass-through command

```
ENT-CRS-ODU1:BTI7000:MXP-1-1-L1-1,MXP-1-1-L2-1:100::2WAY;
```

The following shows an example of an ODU1 add/drop command

```
ENT-CRS-ODU1:BTI7000:MXP-1-1-L1-1,MXP-1-1-C1:160::2WAY;
```

Parameters

| Parameter | Description | | Range | Default |
|-----------|-----------------------------------|--|---|----------------|
| src_aid | The source access identifier | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.2 and greater | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| | | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(L1)-(1-4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| dst_aid | The destination access identifier | BT7A48AA-I02 BT7A48BA-I02 Rel 13.2 and greater | MXP-(1,11,21,31)-(1....20)-(L1, L2, C1, C2, C3, C4)-(1-4) | Not applicable |
| | | BT7A48AA-I02 BT7A48BA-I02 Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| cct | The cross-connection type | | 2WAY | 2WAY |

ENT-CRS-STSn/STSnC

The ENT-CRS-STSn/STSnC commands create a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------|--|
| ENT-CRS-STSn: | [TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>: |
| ENT-CRS-STSnC: | [SWMATE=<swmate>]; |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |
| ENT-CRS-STSnC: | |

Example command

```
ENT-CRS-STSnC:BTI7000:MXP-1-1-L1-1,MXP-1-1-C1-1:100::2WAY:SWMATE=;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| src_aid | The source access identifier | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". Note When CCT = 2WAYPR, SRC_AID can be on L1 only. | Not applicable |
| dst_aid | The destination access identifier | See 2.9, "Destination AID (dst_aid)". | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |
| swmate | The protection AID for the path-protected connection Note Applies only when CCT = 2WAYPR. | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". Note SWMATE can be on L2 only. | Not applicable |

ENT-CRS-SUBODU1

The ENT-CRS-SUBODU1 command creates an asynchronous connection between a line port on an 8-Port Multiprotocol Muxponder and an OC-3/STM-1 or OC-12/STM4 client.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-CRS-SUBODU1:[TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>;
```

Example command

```
ENT-CRS-SUBODU1:BTI7000:MXP-1-1-L1-1,MXP-1-1-C1:100::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| src_aid | The source access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| dst_aid | The destination access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| cct | The cross-connection type | 2WAY | 2WAY |

ENT-CRS-VCn/VCnC

The ENT-CRS-STSn/STSnC commands create a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Multiprotocol Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------|--|
| ENT-CRS-VC4: | [TID]:<src_aid>,<dst_aid>:[CTAG]::<cct>: [SWMATE=<swmate>]; |
| ENT-CRS-VC2C: | |
| ENT-CRS-VC3C: | |
| ENT-CRS-VC4C: | |
| ENT-CRS-VC5C: | |
| ENT-CRS-VC6C: | |
| ENT-CRS-VC7C: | |
| ENT-CRS-VC8C: | |
| ENT-CRS-VC10C: | |
| ENT-CRS-VC12C: | |
| ENT-CRS-VC16C: | |
| ENT-CRS-VC24C: | |

Example command

ENT-CRS-VC2C:BTI7000:MXP-1-1-L1-1,MXP-1-1-C1-1:100::2WAY:SWMATE=;

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| src_aid | The source access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. Note When CCT = 2WAYPR, SRC_AID can be on L1 only. | Not applicable |
| dst_aid | The destination access identifier | See 2.9, “Destination AID (dst_aid)”. | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |
| SWMATE | The protection AID for the path-protected connection Note Applies only when CCT = 2WAYPR. | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. Note SWMATE can be on L2 only. | Not applicable |

ENT-CRS-VCG

The ENT-CRS-VCG command creates a VCAT (VCG) cross-connection between a line port and a client or another line on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-CRS-VCG:[TID]:<src_aid>,<dst_aid>:[CTAG]:<cct>:[SWMATE=<swmate>];
```

Example command

```
ENT-CRS-VCG:BTI7000:VCG-1-6-L1-4,MXP-1-6-C4:100::2WAY:SWMATE=;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| src_aid | The source access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) Note When CCT = 2WAYPR, SRC_AID can be on L1 only. | Not applicable |
| dst_aid | The destination access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) MXP-(1,11,21,31)-(1-20)-(C1-C10) Note Use a client port AID for an add/drop cross-connection, or a line side VCG AID for a pass-through cross-connection. Note DST_AID must be of the same type and must contain the same timeslot indexes as SRC_AID. | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |
| SWMATE | The protection AID for the path-protected connection Note Applies only when CCT = 2WAYPR. | VCG-(1,11,21,31)-(1-20)-(L2)-(1-10) Note SWMATE can be on L2 only. | Not applicable |

ENT-CRS-WCH

The ENT-CRS-WCH command is used to provision a wavelength channel cross-connection.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-CRS-WCH:[TID]:[<fromAid>,<toAid>]:[CTAG]::[SERVICENAME=<serviceName>];
```

Example command

```
ENT-CRS-WCH:BTI7000:ROB-1-7-L1-600, D40MD-0-1-CH590:100:::SERVICENAME=Channel600;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|--|---|----------------|
| fromAid | The access identifier of the wavelength channel source end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.2, “ AID type (aidtype) (for DOL)”. | Not applicable |
| toAid | The access identifier of the wavelength channel destination end-point, which is connected to establish an add/drop or pass-through channel path. | See 2.44, “ Type (type) ”. | Not applicable |
| serviceName | User-defined textual display name of the end-to-end wavelength service, of which this cross-connection is a part . Note Refer to the caution note, following, regarding editing this parameter. | 0 to 32 alphanumeric characters | Not applicable |



Caution

If the BTI PSM network management system is being used to manage the BTI nodes, BTI recommends that the SERVICENAME parameter should not be modified, to avoid node connection issues that could occur. If the service name must be changed, contact your BTI technical representative for assistance.

ENT-CRS-XCVR

The ENT-CRS-XCVR command enters a cross-connect on a port on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-CRS-XCVR:[TID]:<src_aid>,<dst_aid>:[CTAG]::<ctype>;
```

Example command

```
ENT-CRS-XCVR:BTI7000:WR-1-1-1,WR-1-1-2:100::2WAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| src_aid | The source access identifier | See 2.49, “XCVR Source AID (src_aid)”. (src_aid) . | Not applicable |
| dst_aid | The destination access identifier | See 2.48, “XCVR Destination AID (dst_aid)”. (dst_aid) . | Not applicable |
| ctype | The cross-connect type | 1WAY 2WAY | Not applicable |

ENT-EQPT

The ENT-EQPT command enters provisioning information for a piece of equipment. Certain parameters are applicable only to certain equipment types.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-EQPT:[TID]:<aid>:CTAG::<type>[:[ID=<id>]][,C1=<custom1>] [,C2=<custom2>]
[,C3=<custom3>][:[<pst>]][,<sst>]]];
```

Example command

```
ENT-EQPT:BTI7000:OPA-1-2:100::BP1A01DA;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The access identifier | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)” | Not applicable |
| type | The product equipment code (PEC) of the equipment Note The specified connector type or channel number can be included. | See 2.44, “Type (type)”. | Not applicable |
| id | The identifier that describes the equipment | 1 to 20 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ENT-FC

The ENT-FC command enters provisioning information for a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-FC:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[FPSD=<fpsd>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[PEC=<pec>],[AINSTM=<ainstm>],[FCRATE=<fcrate>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-FC:BTI7000:MXP-1-1-C1:100::WAVELENGTH=1559.79;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| fpsd | The fault propagation shutdown enabled flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| ainstm | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| fcrate | The Fibre Channel speed and duplex rate | 1G 2G 4G | 1G |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | not applicable |

ENT-FE

The ENT-FE command enters provisioning information for a Fast Ethernet (FE) client side port of a 2-Port GbE Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-FE:[TID]:<aid>:[CTAG]::[ID1=<id>],[C1=<custom1>],[REMOTEID=<remoteid>;
```

Example command

```
ENT-FE:BTI7000:MXP-1-6-C3:100::ID1=idtest,C1=cltest;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C3,C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

ENT-FFP-OCn

The ENT-FFP-OCn commands enter provisioning information for a SONET protection group on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|---|
| ENT-FFP-OC48 | [<TID>] : <work> , <protect> : [CTAG] : : : [PROTID = <protid>] ; |
| ENT-FFP-OC192 | |

Example command

```
ENT-FFP-OC48:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |

ENT-FFP-STMn

The ENT-FFP-STMn commands enter provisioning information for an SDH protection group on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|---|
| ENT-FFP-STM16 | [<TID>] : <work> , <protect> : [CTAG] : : : [PROTID = <protid>] ; |
| ENT-FFP-STM64 | |

Example command

```
ENT-FFP-STM16:BTI7000:MXP-1-3-L1,MXP-1-3-L2:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters. | Not applicable |

ENT-FFP-XCVR

The ENT-FFP-XCVR command enters the provisioning information for a protection group on a Transponder module.

Note On a 2.5G Wavelength Regenerator, ensure that both the working and protecting transceivers are provisioned with the same Fault Propagation Shutdown setting; that is, the FPSD parameter on *both* ports is either enabled or disabled.

Note This command does not apply to the Single 10G Transponder.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-FFP-XCVR:[ <TID> ]:<work>,<protect>:[ CTAG ]:::[ PROTID=<protid> ]
[ PSDIRN=<psdirn> ];
```

Example command

```
ENT-FFP-XCVR:BTI7000:WM-1-2-2,WM-1-2-4:100:::PROTID=2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|---|
| work | The access identifier of the working transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protect | The access identifier of the protecting transceiver | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |
| psdirn | The protection switch direction | UNI or BI The BI option is available for line protection groups on BT7A49AA-IO2 modules, and for client protection groups on all transponder modules that support client Y-cable protection. The UNI option is available for line protection groups on BT7A49AA-IO2 modules, but is mandatory for line protection groups on all other | UNI for line protection groups BI for client protection groups |

| Parameter | Description | Range | Default |
|-----------|-------------|--|---------|
| | | transponders. This option is not available for client protection groups. | |

ENT-GCC0

The ENT-GCC0 command creates a GCC0 service on a port.

Note The packetVX 80 does not support GCC.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-GCC0:[TID]:<aid>:[CTAG]::[<mode>],<stacktype>:[<pst>][,<sst>];
```

Example command

```
ENT-GCC0:BTI7000:TPR-1-3-3:100:::FRATE,IP;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| | | Note Performing a software upgrade is not possible over a Low Rate connection. A Low Rate connection is only useful for supervisory or monitoring functions. | |
| mode | The framing and speed mode of the GCC connection | FRATE (full bandwidth) LRATE (192Kb/s) (This parameter is not supported.) | FRATE |
| stacktype | Specifies the GCC0 stacktype. | IP | Not applicable |
| pst | The primary state of the equipment. | IS OOS | IS |
| sst | The secondary state of the equipment. | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ENT-GE

The ENT-GE command enters provisioning information for a gigabit Ethernet (GE) client side port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-GE:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[MEDIARATE=<mediarate>],[C1=<custom>],WAVELENGTH=<wavelength>,
[PHYPMON=<phypmon>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[PEC=<pec>],
[AINSTR=<ainstr>],[FLOWCTRL=<flowctrl>],[GFPMODE=<gfpmode>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-GE:BTI7000:MXP-1-1-C1:100::WAVELENGTH=1559.79;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| mediarate | The Ethernet speed and duplex rate in Mbps | 1000FD AUTO Note AUTO is supported only when GFPMODE=GFP-F. Note When Media Rate = Auto, WAVELENGTH cannot be set to 0. | 1000FD |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| wavelength | The channel wavelength in nm | 0 (copper SFPs only) 850 to 1650 Note This parameter cannot be set to 0 when Media Rate = Auto or when Physical PM Monitoring = ON. | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON Note When WAVELENGTH = 0, PHYPMMON cannot be set to ON. | OFF |
| fpsd | The fault propagation shutdown enabled flag | OFF ON | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| flowctrl | The flow control setting | TRANSPARENT LOCAL Note LOCAL is supported only when GFPMODE=GFP-F. | Not applicable |
| gfpmode | The GFP type | GFP-F GFP-T Note GFPMODE cannot be changed when the port is connected. Note GFP-T is supported only when FLOWCTRL=TRANSPARENT and MEDIARATE=1000FD. | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service | IS |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|------------------------|
| | | OOS: Out-of-service | As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

ENT-IP

The ENT-IP command enters IP address information for the Optical Supervisory Channel (OSC) capabilities that are part of the SCP.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-IP:[TID]:<aid>:[CTAG]::[IPADDR=<ipaddr>],[IPMASK=<ipmask>],
[Cl=<custom>],[GATEWAY=<gateway>]:[<pst>],[<sst>];
```

Example command

```
ENT-IP:NE117:IP-1-5-2:100:::IPADDR=50.1.1.1, IPMASK=255.255.255.0,
GATEWAY=10.1.1.1:,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | ENET-(1,2) (management LAN) IP-NMS (management LAN) IP-CRAFT (craft LAN) IP-1-1-(1,2) (OSC ports on SCP) IP-1-5-(1,2) (OSC ports on SCP) | Not applicable |
| ipaddr | The IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| ipmask | The IP mask | four integers between 0 and 255 separated by periods. | Not applicable |
| mediarate | The Ethernet speed and duplex rate in Mbps Note The MEDIARATE parameter does not apply to the AIDs IP-1-1-(1,2), IP-1-5-(1,2) and IP-(1,11,21,31)-(1-20)-(0-3). | See 2.22, “Media rate (Mediarate)”. | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| gateway | The gateway IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| pst | The primary state of the equipment Note: The PST parameter does not apply to AID IP-CRAFT. | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ENT-NGBR

The ENT-NGBR command enters the IP address of a Network Element's neighbor, which the EMS can use to draw a connected network.

Note A maximum of 30 neighbors can be added for each Network Element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-NGBR:[TID]:<aid>:[CTAG]::<ipaddr>;
```

Example command

```
ENT-NGBR:BTI7000:IPADDR:100::10.1.1.2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|---|----------------|
| aid | The unique keyword for the neighbor | 1 to 32 alphanumeric characters, including the hyphen (-) | Not applicable |
| ipaddr | The neighbor's IP address | Four integers between 0 and 255 separated by periods | Not applicable |

ENT-NTPASSOC

The ENT-NTPASSOC command associates the IP address of the NTP time server with the NTP client (BTI 7000 Series). A maximum of five NTP servers can be associated with the NTP client.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-NTPASSOC:[TID]::[CTAG]::ASSOCIPADDR=<associpaddr>;
```

Example command

```
ENT-NTPASSOC:BTI7000::100::associpaddr=156.284.124.629;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| associpaddr | The IP address of the NTP server to associate with the NTP client | Four integers between 0 and 255 separated by periods | Not applicable |

ENT-OA

The ENT-OA command creates an optical amplifier object and the parameters of an optical amplifier.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OA:[TID]:<aid>:[CTAG]::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],
[GRID=<grid>],[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[OAMDE=<oamde>],[GAIN=<gain>],[PWR=<pwr>],[CHANNEL=<channel>],
[TLTCOM=<tltcom>],[CTEMP-HT=<ctempht>],[OPR-LT=<oprlt>],[OPR-HT=<oprht>],
[OPT-LT=<optlt>],[OPT-HT=<opht>],[SSIOPR-HT=<ssioprht>],[MSLOSS-
HT=<mslossht>],[SSIOPR-LT=<ssioprlt>],[FSOOPT-HT=<fsoopht>],[FSOOPT-
LT=<fsoplt>],[AINSTMR=<ainstmr>],[REMOTEID=<remoteid>]:[<pst>],[<sst>;
```

Example command

```
ENT-OA:BTI7000:OPA-1-2-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| id1 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the amplifier | DSF NDSF (SMF-28) NZDSF | Not applicable |
| grid | ITU-T wavelength grid numbers | 50 GHz | Not applicable |
| | Note | 100 GHz | |
| | Applies to DWDM amplifiers only | 200 GHz | |
| chnls | The number of DWDM channels carried | OBA, OLA, OLAM, OPA: 0 to 40 | Not applicable |

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| | Note Applies to DWDM amplifiers only | LGA, MGA, MGM: 0 to 96 | Not applicable |
| C1, C2, C3 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| oamde | The optical amplifier mode | COGAIN (constant gain) COPWR (constant power) | Not applicable |
| gain | The gain level | See 2.14, "Gain level (gain)". | |
| pwr | The power level | See 2.38, "Power level (pwr) - output". | |
| channel | The channel wavelength | 1530.33 to 1561.42 | Not applicable |
| | Note Applies to SBA and SPA amplifiers only | | |
| tlcom | The tilt compensation | OLA, OLAM, LGA, MGA, MGM: -3.0 to 3.0 | 0.0 |
| ctempht | The case temperature high threshold | 45°C to 75°C | 60°C |
| oprlt | The optical power received low threshold | See 2.30, "Optical power received low threshold (oprlt)". | |
| oprht | The optical power received high threshold | See 2.29, "Optical power received high threshold (oprht)". | |
| optlt | The optical power transmitted low threshold | See 2.32, "Optical power transmitted low threshold (optlt)". | |
| optht | The optical power transmitted high threshold | See 2.31, "Optical power transmitted high threshold (optht)". | |
| ssioprht | The second stage input optical power received high threshold | OLAM: -16 to 7 MGM: -27 to 20 | 5.5 20 |
| mslossht | The mid-stage loss high threshold | OLAM: 5 to 15 MGM: 5 to 18 | 15 16 |
| ssioprlt | The second stage input optical power received low threshold | MGM: -30 to 17 | -30 |
| fsooptht | The first stage output optical power transmitted high threshold | MGM: -7 to 20 | 20 |
| fsooptlt | The first stage output optical power transmitted low threshold | MGM: -10 to 15 | 15 |
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode (applies to ED-OA command) | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|-------------------------------|----------------|
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

| | |
|-------------|--|
| Note | Gain, power, and threshold parameters can be set to one decimal of accuracy. |
|-------------|--|

ENT-OC3

The ENT-OC3 command enters provisioning information for an OC-3 port on an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OC3:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],[C1=<custom>],WA
VELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],[VENDORPN1=<vendorpn 1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtranspa rency>],
[PEC=<pec>],[AINSTMR=<ainstmr>],[REMOTEID=<remoteid>],[LOWPASSFILTER=<lo wpassfilter>],
[LASERCTRL=<laserctrl>]:[<pst>],[<sst>];
```

Example command

```
ENT-OC3:BTI7000:MXP-1-1-C1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |

| Parameter | Description | Range | Default |
|---------------|---|---|------------------------------|
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| lowpassfilter | An input signal filter used to support interoperability with only the Juniper equipment model ERX-1440. Note Low-pass filtering is supported only on OC3, and configured only on ports C1, C2, and C3. | ON OFF Note LOWPASSFILTER cannot be changed when the client is connected, in loopback, and when the client is not in a maintenance state (OOS-MA). The CMDMDE=FRCD option cannot be used. | OFF |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-OC12

The ENT-OC12 command enters provisioning information for an OC-12 port on an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OC12:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],[C1=<custom>],W
AVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[TOHTRANSPARENCY=<tohtransp arency>],
[DCCTransparency=<dcctransparency>],[TRANSPARENCYCHANNEL=<transparencyc hannel>],
[PEC=<pec>],[AINSTMR=<ainstmr>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>];
```

Example command

```
ENT-OC12:BTI7000:MXP-1-1-C1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |

| Parameter | Description | Range | Default |
|---------------------|---|---|------------------------------|
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated. | YES (handled transparently) NO (terminated and regenerated) Note DCCTRANSARENCY cannot be changed when the client is connected. | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 12 | 1 |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-OC48

The ENT-OC48 command enters provisioning information for an OC-48 port on a Muxponder module.

Important When the provisioning information for an OC-48 line side port is entered, the associated virtual concatenation groups (VCGs) are automatically created. VCGs are not created on OC-48 client ports.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OC48:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[PEC=<pec>],[AINSTM=<ainstm>],
[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>];
```

Example command

```
ENT-OC48:BTI7000:MXP-1-1-L1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|--|------------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10 ⁻⁵ to 10 ⁻⁸ MXP10: 10 ⁻⁵ to 10 ⁻¹² | 10 ⁻⁶ |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported | YES (transported transparently) NO (terminated and regenerated) | NO |

| Parameter | Description | Range | Default |
|---------------------|--|--|----------------|
| | transparently or terminated and regenerated. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | Note TOHTRANSPARENCY cannot be changed when the client is connected or when the client is not in a maintenance state (OOS-MA). | |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| linemapping | The OTN configuration of the line port Note Applies only to 8-Port Multiprotocol Muxponders. | NONE (no OTN digital wrapper is added to the port) OTU1 (SONET/SDH into and OTU1 frame) SUBODU1-OTU1 (no SONET/SDH framing; four ODU1s into an OTU1 frame) Note Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port. Note LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS). | NONE |
| dcctransparency | Specifies whether the Section DCC (SDCC), specifically the D1, D2, and D3 bytes, for the synchronous client is transparently transported. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. Note This parameter cannot be changed when the client port is connected. Note This parameter can be changed only when the client port is in the OOS-MA state. | YES NO | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 48 | 1 |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| | Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

ENT-OC192

The ENT-OC192 command enters provisioning information for an OC-192 port on a 10-Port Multiprotocol Muxponder – SONET module.

Note When the provisioning information for an OC-192 line side port is entered, the associated virtual concatenation groups (VCGs) are automatically created.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OC192:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[PEC=<pec>],[AINSTMR=<ainstmr>],[LINEMAPPING=<linemapping>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-OC192:BTI7000:MXP-11-3-L1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | For nontunable XFPs: 850 to 1650 For tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|---|
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an OC-192 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> <p>Note</p> <p>LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS).</p> | NONE |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS: In-service</p> <p>OOS: Out-of-service</p> | <p>IS</p> <p>As per AUTOP parameter</p> |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-ODCC

The ENT-ODCC command is used to provision the OSC Data Communications Channel on DOL modules.



Syntax

```
ENT-ODCC:[TID]:<aid>:[CTAG]:::<stacktype>:[<pst>];
```

Example command

```
ENT-ODCC:BTI7000:ROB-1-7-L1:100::IP:IS;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the ODCC object. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| stacktype | The protocol stack running on the ODCC. | IP (for DOL modules) | Not applicable |
| pst | The primary state of the ODCC. | IS: In service OOS: Out of service | Not applicable |

ENT-OL-GROUP

The ENT-OL-GROUP command is used to provision a DOL group.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OL-GROUP:[TID]:<aid>:[CTAG]:<type>:[ID=<id>],[C1=<custom1>],  
[C2=<custom2>],[C3=<custom3>];
```

Example command

```
ENT-OL-GROUP:BTI7000:11:100::EQLZTERM;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| aid | The access identifier of the DOL group | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| type | Non-equalizing Terminal | NOEQLZTERM | Not applicable |
| | Channel Equalizing Terminal | EQLZTERM | |
| | Line Amplifier Node | NOEQLZLINE | |
| | Channel Equalizing Line Node | EQLZLINE | |
| | Reconfigurable Add/Drop Node | ROADM | |
| id | The identifier that describes the equipment | 1 to 32 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |

ENT-OL-EQPT

The ENT-OL-EQPT command is used to assign an equipment module to a DOL nodal group.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OL-EQPT:[TID]:<aid>:[CTAG]::<degree>;
```

Example command

```
ENT-OL-EQPT:BTI7000:DLA-1-3:100::1-1;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the DOL equipment | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| degree | The DOL degree to which the DOL equipment is assigned. | The DOL degree AID type. | Not applicable |

ENT-OL-PORT

The ENT-OL-PORT command is used to provision a port on a DOL module.

Note Only client port 2 on a ROB can be provisioned and de-provisioned.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OL-PORT:[TID]:<aid>:[CTAG]::[ID=<id>],[C1=<c1>],[C2=<c2>],[C3=<c3>],
[DWDMTYPE=<dwdmtype>],[GRID=<grid>],[REMOTEID=<remoteid>];
```

Example command

```
ENT-OL-PORT:BTI7000:ROB-1-7-C2:100:::ID=ROB INSERVICE PORT,DWDMTYPE=ALIEN;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the DOL port | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| id | The user-defined textual identifier that describes the DOL port | 0 to 32 alphanumeric characters | Not applicable |
| C1, C2, C3 | Custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| dwdmtype | The type of line port connection | <ul style="list-style-type: none"> NATIVE: Inter-node connections between DLA and ROB modules. ALIEN: Inter-node connections to other DOL modules within a DOL group, or to connect to non-DOL equipment at the same site. | Not applicable |
| grid | The DWDM grid spacing | 100 GHz | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

ENT-OSPF

The ENT-OSPF command creates an Open Shortest-Path First (OSPF) routing process.

Important If the router identifier (RTRID) is not provisioned, the BTI 7000 Series automatically selects the IP-NMS port address. BTI strongly recommends that the RTRID be provisioned at this time. This prevents the RTRID from changing when an IP interface address is changed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OSPF:[TID]:<aid>:[CTAG]:::[RTRID=<rtrid>],[REDIST=<redist>],  
[AREAAID=<areaid>],[STUB=<stub>]:[<pst>],[<sst>;
```

Example command

```
ENT-OSPF:BTI7000:OSPF-1-5:100:::RTRID=10.11.12.1,  
REDIST=ALL,AREAAID=0,STUB=Y;
```


Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier | OSPF-1-3 OSPF-1-5 | Not applicable |
| rtrid | The router identifier IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| redist | The route redistribution indicator Note The routes are redistributed as external to the autonomous system. | See 2.35, “OSPF redistribution type (OSPFRedist)” . | NONE |
| areaid | The OSPF Area to which the system belongs | Four integers between 0 and 255 separated by periods | 0.0.20.208 |
| stub | The OSPF stub area indicator | Y N | N |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | See 2.41, “Secondary state (sst)” . | Not applicable |

ENT-OSPF-IF

The ENT-OSPF-IF command provisions an Open Shortest-Path First (OSPF) interface.

Note The related IP interface must have an IP address assigned to it.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-OSPF-IF:[TID]:<aid>:[CTAG]::  
[PRIORITY=<priority>][,HELLOINT=<helloint>]  
[,DEADINT=<deadint>][,RETRINT=<retrint>]  
[,TRSTDEL=<trstdel>][,COST=<cost>]  
[:<pst>][,<sst>]];
```

Example command

```
ENT-OSPF-IF:BTI7000:OSPF-1-3-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--------------------------------|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| priority | The priority of this interface | 0 to 255 | Not applicable |
| helloint | The hello interval | 1 to 65535 | Not applicable |
| deadint | The dead interval | 1 to 65535 | Not applicable |
| retrint | The retransmission interval | 1 to 3600 | Not applicable |
| trstdel | The transit delay | 1 to 3600 | Not applicable |
| cost | The cost | 1 to 65535 | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

ENT-ROUTE-STATIC

The ENT-ROUTE-STATIC command provisions static entries in the routing table.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-ROUTE-STATIC:[TID]::[CTAG]::<ipaddr>,<mask>,<nexthop>:
[ADMINDIST=<admindist>];
```

Example command

```
ENT-ROUTE-STATIC:BTI7000::100::1.1.1.0,255.255.255.0,2.2.2.1:ADMINDIST=2
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| ipaddr | The IP address of the destination host or network for the static route | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask that applies to the value of IPADDR, indicating the range of addresses applicable to the route | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | <p>The next hop router to which packets are routed</p> <p>Note NEXTHOP can also be specified as a local IP interface that causes the destination IP to be ARPed on the specified interface network.</p> | <p>Four integers between 0 and 255 separated by periods</p> <p>IP-1-1-(1,2) IP-1-5-(1,2)</p> | Not applicable |
| admindist | <p>The administration distance of the route</p> <p>Note ADMINDIST is used as a metric when the router uses the route information to select a route.</p> | 1 to 254 | Not applicable |

ENT-SNMP-COMMUNITY

The ENT-SNMP-COMMUNITY command provisions an SNMP community string that can be used by SNMP management applications to gain read-only or read-write access to the BTI 7000 Series SNMP agent.



Syntax

```
ENT-SNMP-COMMUNITY:[TID]:<community>:[CTAG]:<access>;
```

Example command

```
ENT-SNMP-COMMUNITY:BTI7000:OSPNEY:100::WRITE;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|---------------------------------|----------------|
| community | The community string | 1 to 20 alphanumeric characters | Not applicable |
| access | The access level for this community | READ WRITE | Not applicable |

ENT-SNMP-TRAPRCV

The ENT-SNMP-TRAPRCV command creates an SNMP trap receiver entity that allows SNMP traps to be sent to the external receiver or SNMP management software.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-SNMP-TRAPRCV:[TID]:<rcvid>:[CTAG]:<ipaddr>,<community>,<version> :
[PORT=<port>],[NOTIFYTYPE=<notiftype>],[TTL=<ttl>];
```

Example command

```
ENT-SNMP-
TRAPRCV:BTI7000:receiver1:100::10.1.1.1,public,V2C:PORT=162,NOTIFYTYPE=TRAP,TTL=12-00;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| rcvid | The receiver identifier | 1 to 20 alphanumeric characters | Not applicable |
| ipaddr | The IP address to which traps are to be directed | Four integers between 0 and 255 separated by periods | Not applicable |
| community | The community string to be included in the trap PDU | 1 to 20 alphanumeric characters | Not applicable |
| version | The SNMP message version | V1 V2C V3 | Not applicable |
| port | The destination port number | Integer between 1 and 65535 | 162 |
| notiftype | The type of PDU notifications used for this receiver | TRAP INFORM Note INFORM applies only when VERSION = V2C. | TRAP |
| ttl | The time to live expressed as hours-minutes | hh-mm Note If TTL is not specified or = 00-00, the trap receiver will persist indefinitely. | 00-00 |

ENT-STM1

The ENT-STM1 command enters provisioning information an STM-1 port on an 8-Port or 10-Port Multiprotocol Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-STM1:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-STM1:BTI7000:MXP-1-1-C1:100::WAVELENGTH=1559.79;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-----------------|---|---|------------------------------|
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

ENT-STM4

The ENT-STM4 command enters provisioning information for an STM-4 port on an 8-Port or 10-Port Multiprotocol Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-STM4:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-STM4:BTI7000:MXP-1-1-C1:100::WAVELENGTH=1559.79;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |

| Parameter | Description | Range | Default |
|---------------------|---|--|------------------------------|
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated. | YES (handled transparently) NO (terminated and regenerated) Note DCCTRANSparency cannot be changed when the client is connected. | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 4 | 1 |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS OOS | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-STM16

The ENT-STM16 command enters provisioning information for an STM-16 port on a Muxponder module.

Important When the provisioning information for an STM-16 line side port is entered, the associated virtual concatenation groups (VCGs) are automatically created. VCGs are not created on STM-16 client ports.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-STM16:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[Cl=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[PEC=<pec>],[AINSTMR=<ainstmr>],
[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>];
```

Example command

```
ENT-STM16:BTI7000:MXP-1-6-11:100:::WAVELENGTH=1559.79;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|--|------------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10 ⁻⁵ to 10 ⁻⁸ MXP10: 10 ⁻⁵ to 10 ⁻¹² | 10 ⁻⁶ |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported | YES (transported transparently) NO (terminated and regenerated) | NO |

| Parameter | Description | Range | Default |
|---------------------|--|--|----------------|
| | transparently or terminated and regenerated. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | Note TOHTRANSPARENCY cannot be changed when the client is connected or when the client is not in a maintenance state (OOS-MA). | |
| dcctransparency | Specifies whether the Section DCC (SDCC), specifically the D1, D2, and D3 bytes, for the synchronous client is transparently transported. Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. Note This parameter cannot be changed when the client port is connected. Note This parameter can be changed only when the client port is in the OOS-MA state. | YES NO | NO |
| transparencychannel | The channel on which DCC transparency is transported Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | 1 to 16 | 1 |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |

| Parameter | Description | Range | Default |
|-------------|---|---|---|
| linemapping | <p>The OTN configuration of the line port</p> <p>Note Applies only to 8-Port Multiprotocol Muxponders.</p> | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>OTU1 (SONET into and OTU1 frame)</p> <p>SUBODU1-OTU1 (no SDH framing; four ODU1s into an OTU1 frame)</p> <p>Note Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> <p>Note LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS).</p> | NONE |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS</p> <p>OOS</p> | <p>IS</p> <p>As per AUTOP parameter</p> |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-STM64

The ENT-STM64 command enters provisioning information an STM-64 line side port of a 10-Port Multiprotocol Muxponder – SDH module.

Note When the provisioning information for an STM-64 line side port is entered, the associated virtual concatenation groups (VCGs) are automatically created (contiguous concatenation groups are not created automatically).

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-STM64:[TID]:<aid>:[CTAG]::[ID1=<id>],[FIBERTYPE=<fibertype>],
[C1=<custom>],WAVELENGTH=<wavelength>,[PHYPMON=<phypmmon>],[SDBER=<sdber>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[PEC=<pec>],[AINSTMR=<ainstmr>],[LINEMAPPING=<linemapping>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>;
```

Example command

```
ENT-STM64:BTI7000:MXP-11-3-L1:100:::WAVELENGTH=1310;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | For nontunable XFPs: 850 to 1650 For tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|---|
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an STM-64 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> <p>Note</p> <p>LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS).</p> | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS: In-service</p> <p>OOS: Out-of-service</p> | <p>IS</p> <p>As per AUTOP parameter</p> |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

ENT-USER-SECU

The ENT-USER-SECU command enters the security parameters associated with a user.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-USER-SECU:[TID]:<uid>:[CTAG]::<pid>,,<uap>:[TIMEOUT=<timeout>];
```

Example command

```
ENT-USER-SECU:BTI7000:tester:100:*****,,surveillance:TIMEOUT=16;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters Note This value must not match the value of the parameter PID. | Not applicable |
| pid | The password identifier, which is a confidential code to qualify the authorized system user to access the account specified by the user ID Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). | 6 to 10 case-sensitive alphanumeric characters and special characters Note All special characters are supported except hyphen (-), equals sign (=), semicolon (;), colon (:), apostrophe ('), quotation mark ("), comma (,), question mark (?) . | Not applicable |
| uap | The user access privilege | See 2.45, “User access privilege (uap)”. | SURVEILLANCE |
| timeout | The user inactivity timeout in minutes | 0 (disabled) 5 to 60 | Not applicable |

ENT-VCG

The ENT-VCG command enters VCG provisioning information for a line side port of a 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
ENT-VCG:[TID]:<aid>:[CTAG]::VCGTYPE=<vcgtype>,TSINDEX=<tsindex>;
```

Example command

```
ENT-VCG:BTI7000:VCG-11-3-L1-1:100::VCGTYPE=STS1C22V,TSINDEX=1&&22
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the line side port | VCG-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-10) | Not applicable |
| VCGTYPE | The VCG type | See 2.46, "VCG Type (vcgtype)" . | Not applicable |
| TSINDEX | The range of time-slot indices | Comma separated set of ranges or individual STS1/STS3c/VC4 indices, where a comma is indicated by & and a range is indicated by &&. For example, 89&&110 specifies the time-slot 89 to 100. | Not applicable |

ENT-XCVR

The ENT-XCVR command enters provisioning information for a port on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Note The PROTOCOL parameter is a mandatory field.

Syntax

```
ENT-XCVR:[TID]:<aid>:[CTAG]:::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],[GRID=<grid>],
[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],PROTOCOL=<protocol>,[WAVELENGTH=<wavelength>],
[PHYPMON=<phypmon>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],
[VENDORPN3=<vendorpn3>],[PEC=<pec>],[SDBER=<sdber>],[AINSTM=<ainstm>],
[EXPECTEDTRC=<expectedtrc>],[OUTGOINGTRC=<outgoingtrc>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]: [<pst>],[<sst>];
```

Example command

```
ENT-XCVR:BTI7000:WR-1-1-1:100:::PROTOCOL=OC48,WAVELENGTH=1550;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the port | DSF NDSF (SMF-28) NZDSF MULTIMODE | Not applicable |
| grid | The ITU-T wavelength grid number | 20 nm | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| protocol | The protocol | See 2.40, “ Protocol (Protocol) for Transponder modules ”. | Not applicable |
| wavelength | The channel wavelength in nm | 0 (copper SFPs only) Nontunable XFPS and noncopper SFPs: 850 to 1650 Tunable XFPs: 1529.55 to 1560.61 | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| | | Note This parameter cannot be set to 0 when PHYPMON or FPSD = ON. | |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| | | Note When WAVELENGTH = 0, PHYPMON cannot be set to ON. | |
| fpsd | The on/off state of fault propagation shutdown | OFF ON | OFF |
| | | Note For information about FPSD and laser status, see the <i>Transponder Solutions Guide</i> . | |
| | | Note When PROTOCOL = 10GELAN, FPSD = ON by default. | |
| | | Note When WAVELENGTH = 0, FPSD cannot be set to ON. | |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code | 1 to 11 alphanumeric characters | Not applicable |
| sdber | The signal degrade BER threshold | 0 (disabled) 10GELAN, 10GFC: 10MINUS4 (10 ⁻⁴) OC192FEC, STM64FEC, 10GELANFEC, 10GELANFEC EPCMF, OC192EFEC, STM64EFEC, 10GELANEFEC, 10GELANEFEC EPCMF, OTU2FEC: 10MINUS6 (10 ⁻⁶) to 10MINUS10 (10 ⁻¹⁰) | Not applicable |
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | 08-00 |
| expectedtrc | The label for the expected section trace. | 1 to 15 alphanumeric characters | Not applicable |
| outgoingtrc | The label for the section trace. | 1 to 15 alphanumeric characters | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON | AUTO |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--|----------------|
| | | MANUAL_OFF | |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | Not applicable |
| sst | The secondary state of the equipment | See 2.41, " Secondary state (sst) ". | Not applicable |

12.0 INH commands

This section describes inhibit (INH) commands for the BTI 7000 Series.

- “INH-MSG-ALL”
- “INH-USER-SECU”

INH-MSG-ALL

The INH-MSG-ALL command disables the reporting of all autonomous messages for that user's current TL1 session.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INH-MSG-ALL:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<tmper>;
```

Example command

```
INH-MSG-ALL:BTI7000::100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------------------------------|----------------|
| aid | The access identifier. | Not supported in this release | Not applicable |
| ntfcncde | The notification code of the event that caused the condition to be reported | Not supported in this release | Not applicable |
| condtype | The condition type code for an alarm or a reported event. | Not supported in this release | Not applicable |
| tmper | The performance monitoring time period | Not supported in this release | Not applicable |

INH-USER-SECU

The INH-USER-SECU command inhibits a local user from logging into the network element. This command avoids having to delete the user account.



Syntax

```
INH-USER-SECU:[TID]:<uid>:[CTAG];
```

Example command

```
INH-USER-SECU:BTI7000:joseph:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters. | Not applicable |

13.0 INIT commands

This section describes initialize (INIT) commands for the BTI 7000 Series.

- “INIT-LOG”
- “INIT-REG-FC”
- “INIT-REG-GE”
- “INIT-REG-OA”
- “INIT-REG-OCn”
- “INIT-REG-OSC”
- “INIT-REG-PORT”
- “INIT-REG-STMn”
- “INIT-REG-STS_n/STS_nC”
- “INIT-REG-VC_n/VC_nC”
- “INIT-REG-WCH”
- “INIT-REG-XCVR”
- “INIT-SYS”

INIT-LOG

The INIT-LOG command instructs a network element to initialize a specified message log category immediately. When this command is executed, it does not change the current log attributes, but rather clears the contents of the existing log category identifier.



Syntax

```
INIT-LOG:[TID]:[<aid>]:[CTAG]::<lognm>;
```

Example command

```
INIT-LOG:BTI7000::100::ALM;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--|----------------|
| aid | The access identifier | Not specified | Not applicable |
| lognm | The log category name | ALM CMD DBCHG EVT ALL ¹ | Not applicable |

¹Security logs cannot be initialized, therefore the keyword "SECU" is not included in this list. Similarly, the keyword "ALL" does not include security logs.

INIT-OIF

The INIT-OIF command activates the provisioning changes made by the ED-NLP command, and the addition or removal of OSI links by the ENT-GCC0 and DLT-GCC0 commands.

- CPY-FILE specifying NSAP
- ED-SYS
- INIT-OIF (another one)
- OPR-TEF
- RTRV-NLP-CKT
- RTRV-NLP-NBR
- RTRV-TARP-CACHE
- SET-SID

Although it is visible to the user, this command is not supported by this version of the product.



INIT-REG-BRI

The INIT-REG-BRI command initializes to zero one or more monitored parameters associated with a Bit-Rate Independent (BRI) client side port on an 8-Port Multiprotocol Muxponder module. These registers contain PM information accumulated in previous intervals.



Syntax

```
INIT-REG-BRI:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],  
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-BRI:BTI7000:MXP-1-1-C1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C8) | Not applicable |
| montype | The monitoring type of the performance monitoring data | See 2.23, "Monitored type (montype) for Muxponder modules " | Not applicable |
| monval | The value to which the register identified by MONTYPE is to be initialized, or the measured value of a monitored parameter | 0 | 0 |
| | Note The value is a numeric count or a rate. | | |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA RCV TRMT | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (returns bins 1 to 96 only) | 0 |

INIT-REG-FC

The INIT-REG-FC command initializes to 0 one or more monitored parameters associated with a Fibre Channel (FC) client side port on an 8-Port or 10-Port Multiprotocol Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-FC:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],  
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-FC:BTI7000:MXP-1-6-C1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3.5)-(C1-C10) | Not applicable |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules". | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-GE

The INIT-REG-GE command initializes to 0 one or more monitored parameters associated with a gigabit Ethernet (GE) port on a Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-GE:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],
[<tper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-GE:BTI7000:MXP-1-6-C1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| montype | The type of monitored parameter | See 2.23, “ Monitored type (montype) for Muxponder modules ”. | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-OA

The INIT-REG-OA command initializes to 0 one or more monitored parameters associated with a port on an amplifier module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-OA:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-OA:BTI7000:LGA-1-10-1:1000::OPR-MIN,0,,,1-DAY,,,1;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| montype | The type of monitored parameter | ALL (clears all applicable montypes listed in 2.24, "Monitored type (montype) for Optical Amplifiers") OPR-MIN OPR-MAX OPR-AVG OPT-MIN OPT-MAX OPT-AVG | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-OCn

The INIT-REG-OCn commands initialize to 0 one or more monitored parameters associated with a SONET port on a Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---|
| INIT-REG-OC3: | <aid>:[CTAG]::<montype>,[<monval>],[<locn>],[<dirn>],[<tper>],[<mondatt>],[<montm>],[<index>; |
| INIT-REG-OC12: | |
| INIT-REG-OC48: | |
| INIT-REG-OC192: | |

Example command

```
INIT-REG-OC3:BTI7000:MXP-1-1-C1:100::ALL;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|---|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules". | | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | | 0 |
| locn | The monitoring location identifier | NEND (near end) | | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV | |
| tper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-OSC

The INIT-REG-OSC command initializes performance monitoring data collected for the OSC on DOL equipment.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-OSC:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-OSC:BTI7000:ROB-1-3-L1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier for wavelength channels on ROB module line and client ports | DLA-{1,11,21,31}-{1-20}-L1 ROB-{1,11,21,31}-{1,3,5,7,9,11,13,15,17,19}-L1 | Not applicable |
| montype | The type of monitored parameter | ALL | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-PORT

The INIT-REG-PORT command is used to initialize performance monitoring data collected for ports on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-PORT:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-PORT:BTI7000:ROB-1-3-L1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | DLA-{1,11,21,31}-{1-20}-L1 ROB-{1,11,21,31}-{1,3,5,7,9,11,13,15,17,19}-L1 | Not applicable |
| montype | The type of monitored parameter | OPR OPR-MIN OPR-MAX OPR-AVG OPR-STDDEV OPT OPT-MIN OPT-MAX OPT-AVG OPT-STDDEV LOSS-RX LOSS-TX | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| mondat | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-STMn

The INIT-REG-STMn commands initialize to 0 one or more monitored parameters associated with an SDH port on a Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---|
| INIT-REG-STM1: | <aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],[<montm>],[<index>; |
| INIT-REG-STM4: | |
| INIT-REG-STM16: | |
| INIT-REG-STM64: | |

Example command

```
INIT-REG-STM1:BTI7000:MXP-1-1-C2:100::RS-SES,,NEND,NA,15-MIN,07-28;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|---|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules". | | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | | 0 |
| locn | The monitoring location identifier | NEND (near end) | | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-STSn/STSnC

The INIT-REG-STSn/STSnC commands initialize to 0 one or more monitored parameters associated with an STS path facility object of a SONET Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-------------------|--|
| INIT-REG-STSn: | [TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],[<tper>],[<mondatt>],[<montm>],[<index>; |
| INIT-REG-STSnC: | |
| INIT-REG-STSn6C: | |
| INIT-REG-STSn9C: | |
| INIT-REG-STSn12C: | |
| INIT-REG-STSn15C: | |
| INIT-REG-STSn18C: | |
| INIT-REG-STSn21C: | |
| INIT-REG-STSn24C: | |
| INIT-REG-STSn30C: | |
| INIT-REG-STSn36C: | |
| INIT-REG-STSn48C: | |
| INIT-REG-STSn72C: | |

Example command

```
INIT-REG-STSn1:BTI7000:MXP-1-6-L1-1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the STS path facility object | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules". | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| | | 1-UNT (untimed) | |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-VCn/VCnC

The INIT-REG-VCn/VCnC commands initialize to 0 one or more monitored parameters associated with a VC4 path facility object of an SDH Muxponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---|
| INIT-REG-VC4: | [TID]:<aid>:[CTAG]::<montype>,[<monval>],[<locn>],[<dirn>],[<timper>],[<mondatt>],[<montm>],[<index>; |
| INIT-REG-VC2C: | |
| INIT-REG-VC3C: | |
| INIT-REG-VC4C: | |
| INIT-REG-VC5C: | |
| INIT-REG-VC6C: | |
| INIT-REG-VC7C: | |
| INIT-REG-VC8C: | |
| INIT-REG-VC10C: | |
| INIT-REG-VC12C: | |
| INIT-REG-VC16C: | |
| INIT-REG-VC24C: | |

Example command

```
INIT-REG-VC4:BTI7000:MXP-1-6-L1-ALL:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the VCG path facility object | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| montype | The type of monitored parameter | See 2.23, “Monitored type (montype) for Muxponder modules ”. | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-WCH

The INIT-REG-WCH command is used to initialize performance monitoring data collected for wavelength channel facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-WCH:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],[<tper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-WCH:BTI7000:ROB-1-3-L1:100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | DLA-{1,11,21,31}-{1-20}-L1 ROB-{1,11,21,31}-{1,3,5,7,9,11,13,15,17,19}-L1 | Not applicable |
| montype | The type of monitored parameter | OPR OPR-MIN OPR-MAX OPT OPT-MIN OPT-MAX | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-REG-XCVR

The INIT-REG-XCVR command initializes to 0 one or more monitored parameters associated with a port on a Transponder module. These registers contain PM information accumulated in previous intervals.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-REG-XCVR:[TID]:<aid>:[CTAG]:<montype>,[<monval>],[<locn>],[<dirn>],  
[<tper>],[<mondatt>],[<montm>],[<index>];
```

Example command

```
INIT-REG-XCVR:BTI7000:TPR-1-2-2:1000::CV,0,,1-DAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-2) | Not applicable |
| montype | The type of monitored parameter | See 2.26, “Monitored type (montype) values and threshold crossing alerts (TCA) for Transponder modules”. | Not applicable |
| monval | The value to which the identified montype is to be initialized | 0 | 0 |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | RCV (receive) | RCV |
| tper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (targets all historical bins for initialization) | 0 |

INIT-SYS

The INIT-SYS command restarts a module.

For the INIT-SYS command to be issued as a cold restart, the children of the module must be in the OOS-MA state, or else the CMDMDE=FRCD parameter must be used.

The INIT-SYS command can also be used to activate a software upgrade on the system, or perform a database restore operation. When used in this capacity, the command performs similar actions to the INVK-SYS-UPGRD and INVK-DB-RST commands respectively.

Note For expansion shelves, the INIT-SYS command is applied to the expansion shelf interface (that is, SI-(11,21,31)) that is stateless.

Caution Performing a cold restart can result in the loss of traffic through the optical amplifiers and loss of connections to the BTI 7000 Series. Performing a warm restart can result in the loss of connections to the BTI 7000 Series.

When a System Control Processor (SCP) is restarted by the INIT-SYS command, the following events occur:

- Provisioning information is maintained.
- State information is re-synchronized at start-up.
- Logs are maintained.
- Historical performance measurement (PM) bins are cleared.
- Clock time is kept up to date.
- Uptime is reset.
- Traffic is maintained.

XFP cold reboot considerations

- You can perform a cold reboot on XFPs only if the associated port is manually put out-of-service (OOS-MA) or there is not a provisioned port against it.
- Following an XFP cold reboot, an XFP unplug followed by an XFP plugin event is generated.
- XFP cold reboot is not supported on optical or copper SFPs.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INIT-SYS:[TID]:[<aid>]:[CTAG]:[<ph>]:[GISSUE=<gissue>],[ACTDAT=<actdat>],
[ACTTIM=<acttim>],[VALTM=<valtm>],[DBSRST=<dbsrst>],[CMDMDE=<cmdmde>;
```

Example command

```
INIT-SYS:BTI7000:SCP-1-5:100::1;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | <p>The access identifier</p> <p>Note Not required when performing a software upgrade or database restore operation</p> | <p>2.1, “AID type (aidtype)”</p> <p>2.2, “ AID type (aidtype) (for DOL)”</p> <p>LGA-(1,11,21,31)-(1-20)</p> <p>MGA-(1,11,21,31)-(1-20)</p> <p>MGM-(1,11,21,31)-(1-20)</p> <p>MXP-(1,11,21,31)-(1-20)</p> <p>OBA-(1,11,21,31)-(1-20)</p> <p>OLA-(1,11,21,31)-(1-20)</p> <p>OLAM-(1,11,21,31)-(1-20)</p> <p>OPA-(1,11,21,31)-(1-20)</p> <p>OSC-(1,11,21,31)-(1-20)</p> <p>SBA-(1,11,21,31)-(1-20)</p> <p>SCP-1-(1,3,5)</p> <p>SI-(11,21,31)</p> <p>SPA-(1,11,21,31)-(1-20)</p> <p>TPR-(1,11,21,31)-(1-20)</p> <p>WM-(1,11,21,31)-(1-20)</p> <p>WR-(1,11,21,31)-(1-20)</p> <p>WT-(1,11,21,31)-(1-20)</p> <p>XFP-(1,11,21,31)-(1-20)-(1-4)</p> <p>XFP-(1,11,21,31)-(1,3,5...19)-(L1,L2)</p> <p>XFP-(1,11,21,31)-(1,3,5...19)-(X1-X8)</p> | Not applicable |
| ph | <p>The phase of the test, routine or function being performed. Values indicate the degree of system initialization. For a cold start, a reply to this message is sent before the cold start begins.</p> <p>Note: For expansion shelves, phase does not apply to the shelf but it does apply to the expansion shelf interface (that is, SI-(11,21,31)) module.</p> <p>Note: If performing a software upgrade or database restore, do not specify the ph parameter.</p> | <p>0: warm restart</p> <p>1: cold restart</p> <p>2: power-on, used to restart a module after a temperature shutdown</p> | Not applicable |
| gissue | The generic issue | A string in the format xx-yy-z, where xx, yy, and z are integers | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|-----------------------|----------------|
| | Note Use when performing a system upgrade to confirm the upgrade software issue | | |
| actdat | The activation date | 00-00-00 if specified | Not applicable |
| acttim | The activation time | 00-00-00 if specified | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|---------|
| valtm | The validation timer expressed as HH=hours, MM=minutes, and SS=seconds. Note Use only when performing a software upgrade or a database restore operation. It specifies the value of a timeout timer that will be used once the operation is complete. If the timer expires before the operation is committed, the system will automatically cancel the operation. | HH-MM-SS Note The minimum value is 15 minutes (001500). | 001500 |
| dbsrst | The database restore operation | Y N | N |
| cmdmde | The command mode | NORM FRCD | NORM |

14.0 INVK commands

This section describes invoke (INVK) commands for the BTI 7000 Series.

- “INVK-DB-BKUP”
- “INVK-DB-DLT”
- “INVK-DB-RST”
- “INVK-SCP-RELNUM”
- “INVK-SYS-UPGRD”

INVK-DB-BKUP

The INVK-DB-BKUP command performs a database backup. This action takes the database that is currently in use and stores it either locally (TYPE=SCP) on the SCP or remotely (TYPE=FTP or SFTP) on an external FTP server.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INVK-DB-BKUP:[TID]::CTAG::TYPE=<type>[ ,IPADDR=<ipaddr>][ ,PATH=<path>]
[ ,USERID=<userid>][ ,PWD=<pwd>][ ,CHKALM=<chkalm>];
```

Example command

```
INVK-DB-BKUP:TID100::100::TYPE=FTP,IPADDR=192.168.172.59,
PATH=DIRECTORY_NAME/;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| type | The type of backup | FTP SFTP SCP | Not applicable |
| ipaddr | The IP address that stores the backup image Note Used only when TYPE=FTP | Four integers between 0 and 255 separated by periods | Not applicable |
| path | The path to the directory where the backup file is to be stored. | Backup path in alphanumeric characters (at least one character and an underscore must precede TID) Note The maximum path length is 54 characters when TYPE=FTP and 48 characters when TYPE=SCP. Note If TYPE=FTP, the path to the directory must end with a slash (/); for example, PATH=directory_name/. Note Some UNIX systems require that the entire directory path and backup file name be entered for the path field. If no path is entered, the system responds with a default backup file | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| | | name in the format <product_name>_<TID>_<Month><DD>_<YYYY>, where <product_name> is the name of the product <TID> is the target identifier <Month> is the month's name <DD> is the date of the month <YYYY> is the date of the year . | |
| userid | The user ID, which is a unique name that identifies each authorized system user on the external FTP server | 1 to 10 case-sensitive alphanumeric characters | Not applicable |
| pwd | The password identifier, which is a confidential code to qualify the authorized user to access their userid on the external FTP server Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). For details on what characters are forbidden, see Appendix E, "Special characters" . | 6 to 10 case-sensitive alphanumeric characters | Not applicable |
| chkalm | The enabled/disabled state of check alarm parameter | Y (will not execute when there are active alarms on the system) N (will execute when there are active alarms on the system) | Y |

INVK-DB-DLT

The INVK-DB-DLT command deletes the database on the SCP and replaces it with an empty database. This is a traffic-affecting command.

Note This command affects proNX 900 users. There is no notification to the users that the database has been deleted. All proNX 900 users other than "admin" who are logged in to the NE when this command is invoked are disconnected, because those userids are deleted by the command. They cannot login to the NE again until their userids have been reprovisioned. A proNX 900 user that is logged in to the NE as "admin" when this command is invoked is not disconnected. After this command is invoked, the "admin" user should refresh the proNX 900 and then change the NE's IP address from the default value to the operational value.

Note If the INVK-DB-DLT command fails, it is necessary to enter the CANC-DB-DLT command to regain full access to the system.

Note This command may take 15 minutes or longer to execute, depending on the size and configuration of the system.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INVK-DB-DLT:[TID]::[CTAG]::[CHKALM=<chkalm>];
```

Example command

```
INVK-DB-DLT:BTI7000::100::CHKALM=N;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|---------|
| chkalm | The enabled/disabled state of check alarm parameter | Y (the command will not execute when there are active alarms on the system) N (the command will execute when there are active alarms on the system) | Y |

INVK-DB-RST

The INVK-DB-RST command takes a previously loaded database (loaded via the LOAD-DB-RST command) and sets up the provisioning information on the SCP without propagating that information to the module. This means that the RTRV commands return information from the newly invoked database, but the modules are still running on the old provisioning information.

Note If the INVK-DB-RST command fails, it is necessary to enter the CANC-DB-RST command to regain full access to the system.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INVK-DB-RST:[TID]::[CTAG]:::FILENAME=<filename>,[CHKALM=<chkalm>];
```

Example command

```
INVK-DB-RST:BTI7000::100:::FILENAME=BTI70000_January28_2003,CHKALM=N;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| filename | is the name of the backup file that is to be restored. | Backup file name in alphanumeric characters. Note The maximum path length is 54 alphanumeric characters Note Some UNIX systems may require that the entire directory path and backup file name be entered for the path field. If no backup file name is designated, the system defaults to the format: BTI7000_<NENName>_<MONTH> <DAY>_<YEAR> for the backup file name. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|---------|
| chkalm | The enabled/disabled state of check alarm parameter | Y (the command will not execute when there are active alarms on the system) N (the command will execute when there are active alarms on the system) | Y |

INVK-SCP-RELNUM

The INVK-SCP-RELNUM command invokes the SCP upgrade process.

Note The INVK-SCP-RELNUM command can be executed only when a Release Number Mismatch (RELNUMMEA) alarm exists on the system. This command allows the SCP to upgrade or downgrade to the system software release. If you choose to use this command, you must ensure that the software release load that you want to upgrade or downgrade the SCP to has already been installed on the SCP through the LOAD-SYS-UPGRD command. Before using this command, ensure that you perform a local (SCP) database backup. For added protection, a remote database backup can also be performed. This is not service affecting.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INVK-SCP-RELNUM:[TID]::[CTAG]:::[RELNUM=<relnum>],[CHKALM=<chkalm>];
```

Example command

```
INVK-SCP-RELNUM:BTI7000::100::RELNUM=1.0.0,CHKALM=n
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| relnum | The release number of the system upgrade file in the format "a.b.c", where a is the major release designation, b is the release update designation, and c is the maintenance release designation | 0 to 9 integers | Not applicable |
| chkalm | The enabled/disabled state of check alarm parameter | Y (the command will not execute when there are active alarms on the system) N (the command will execute when there are active alarms on the system) | Y |

INVK-SYS-UPGRD

The INVK-SYS-UPGRD command takes a previously loaded software version file (loaded via the LOAD-SYS-UPGRD command) and propagates the software to all installed modules. The new software version is copied to the modules, which then restart to the new software version.

After the software is upgraded, the system reboots and the operator must log in to the system again.

Note Before using this command, ensure that you perform a local database backup. For added protection, a remote database backup can also be performed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
INVK-SYS-UPGRD:[TID]::[CTAG]:::[RELNUM=<relnum>],[CHKALM=<chkalm>];
```

Example command

```
INVK-SYS-UPGRD:BTI7000::100:::RELNUM=1.1,CHKALM=N
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| relnum | The release number of the system upgrade file in the format "a.b.c", where a is the major release designation, b is the release update designation, and c is the maintenance release designation | 0 to 9 integers | Not applicable |
| chkalm | The enabled/disabled state of check alarm parameter | Y (the command will not execute when there are active alarms on the system) N (the command will execute when there are active alarms on the system) | Y |

15.0 LOAD commands

This section describes load (LOAD) commands for the BTI 7000 Series.

- “LOAD-DB-RST”
- “LOAD-SYS-UPGRD”

LOAD-DB-RST

The LOAD-DB-RST command takes the specified database file from the specified (S)FTP server and puts the database file on the SCP storage disk.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
LOAD-DB-RST:[TID]::[CTAG]:::TYPE=<type>,[IPADDR=<ipaddr>],[PATH=<path>],[USERID=<userid>],[PWD=<pwd>],[TIDCHK=<tidchk>;
```

Example command

```
LOAD-DB-RST:TID100::100:::TYPE=FTP,IPADDR=192.168.172.59,
PATH=BTI7000_TID100_Jan15_2006,USERID=FTP,PWD=*****,TIDCHK=N;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| type | The type of backup or restore transfer | FTP SFTP SCP | Not applicable |
| ipaddr | The IP address of FTP server where the backup file is stored | IP address | Not applicable |
| | Note Applies when TYPE=FTP | | |
| path | The name of the backup file | Backup file name or the relative path name in alphanumeric characters | Not applicable |
| | Note The maximum path length is 54 alphanumeric characters when TYPE=FTP; 48 alphanumeric characters when TYPE=SCP. | | |
| | Note When the path specified includes the TID, the TID in the backup file name must match the TID of the system. | | |
| | Note Some UNIX systems may require that the entire directory path and backup file name be entered for the path field. | | |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| userid | The user ID, which is a unique name that identifies each authorized system user on the external FTP server | 1 to 10 case-sensitive alphanumeric characters. | Not applicable |
| pwd | <p>The password identifier that qualifies the authorized user to access their user ID on the external FTP server</p> <p>Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). For details on what characters are forbidden, see Appendix E, "Special characters".</p> | 6 to 10 case-sensitive alphanumeric characters. | Not applicable |
| tidchk | The target identifier (TID) check indicator that validates the TID of the database file with the TID of the network element | <p>Y N</p> <p>Note If the default file name has changed, use TIDCHK=N.</p> | Y |

LOAD-SYS-UPGRD

The LOAD-SYS-UPGRD command takes the specified software version file from a specified (S)FTP server and puts the software file in the inactive memory bank of the SCP.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
LOAD-SYS-UPGRD:[TID]::[CTAG]:::TYPE=<type>,IPADDR=<ipaddr>,[PATH=<path>],
[USERID=<userid>],[PWD=<pwd>];
```

Example command

```
LOAD-SYS-UPGRD:BTI7000::100:::TYPE=FTP,IPADDR=192.168.172.110,PATH=/tmp/
images/BTI7000_image_1.0.0_build_13.bin
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| type | The type of backup or restore transfer | FTP SFTP SCP | Not applicable |
| ipaddr | The IP address of the server where the upgrade file is stored | IP address | Not applicable |
| path | The name of the system upgrade file | System upgrade file name or the relative path name in alphanumeric characters Note The maximum path length is 63 characters. Note Some UNIX systems may require that the entire directory path and backup file name be entered for the path field. | Not applicable |
| userid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters. | Not applicable |
| pwd | The password identifier that qualifies the authorized system user to access the account specified by the user ID Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI | 6 to 10 case-sensitive alphanumeric characters. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|-------|---------|
| | (command-line interface). For details on what characters are forbidden, see Appendix E , “Special characters”. | | |

16.0 OPR commands

This section describes operate (OPR) commands for the BTI 7000 Series.

- “OPR-LPBK-BRI”
- “OPR-LPBK-FC”
- “OPR-LPBK-GE”
- “OPR-LPBK-OCn”
- “OPR-LPBK-STMn”
- “OPR-LPBK-XCVR”
- “OPR-OBR-HTSO”
- “OPR-PROTNSW-OCn”
- “OPR-PROTNSW-STMn”
- “OPR-PROTNSW-STSn/STSnC”
- “OPR-PROTNSW-VCn/VCnC”
- “OPR-PROTNSW-XCVR”

OPR-LPBK-BRI

The OPR-LPBK-BRI command operates a loopback test on a Bit Rate Independent (BRI) client side port on an 8-Port Multiprotocol Muxponder module.

Note For this command to execute successfully, the port must be in the OOS-MA state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-LPBK-BRI:[TID]:<aid>:[CTAG]:[<locn>],,,<lpbktype>;
```

Example command

```
OPR-LPBK-BRI:BTI7000:MXP-1-1-C1:100:,,,FACILITY;
```

Parameters

| Parameter | Description | Range | Default |
|---|-----------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C8) | Not applicable |
| locn | The location identifier | NEND (near end) | Not applicable |
| lpbktype | The loopback type | FACILITY TERMINAL | Not applicable |
| Note For a terminal loopback, the port must be connected. | | | |

OPR-LPBK-FC

The OPR-LPBK-FC command operates a loopback test on a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Note For this command to execute successfully, the port must be in the OOS-MA state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-LPBK-FC:[TID]:<aid>:[CTAG]::[<locn>],,,<lpbktype>;
```

Example command

```
OPR-LPBK-FC:BTI7000:MXP-1-1-C1:100:,,,FACILITY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(C1-C10) | Not applicable |
| locn | The location identifier | NEND (near end) | Not applicable |
| lpbktype | The loopback type | FACILITY TERMINAL | Not applicable |
| | | Note For a terminal loopback, the port must be connected. | |

OPR-LPBK-GE

The OPR-LPBK-GE command operates a loopback test on a gigabit Ethernet (GE) client side port of a Muxponder module.

Note For this command to execute successfully, the port must be in the OOS-MA state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-LPBK-GE:[TID]:<aid>:[CTAG]::[<locn>],,,<lpbktype>;
```

Example command

```
OPR-LPBK-GE:BTI7000:MXP-1-6-C1:100::,, ,FACILITY;
```

Parameters

| Parameter | Description | Range | Default |
|---|-----------------------------------|-----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1-20)-(C1-C10) | Not applicable |
| locn | The location identifier | NEND (near end) | Not applicable |
| lpbktype | The loopback type | FACILITY TERMINAL | Not applicable |
| Note For a terminal loopback, the port must be connected. | | | |

OPR-LPBK-OCn

The OPR-LPBK-OCn commands operate a loopback test on a SONET port of a Muxponder module.

Note For this command to execute successfully, the port must be in the OOS-MA state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|--|
| OPR-LPBK-OC3: | [TID]:<aid>:[CTAG]::[<locn>],,,<lpbktype>; |
| OPR-LPBK-OC12: | |
| OPR-LPBK-OC48: | |
| OPR-LPBK-OC192: | |

Example command

```
OPR-LPBK-OC3:BTI7000:MXP-1-1-C1:100::,, ,FACILITY;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| locn | The location identifier | NEND (near end) | | Not applicable |
| lpbktype | The loopback type | FACILITY | | Not applicable |
| | | TERMINAL | | |
| | | Note For a terminal loopback, the port must be connected. | | |
| | | Note Only client ports support terminal loopback. | | |

OPR-LPBK-STMn

The OPR-LPBK-STMn commands operate a loopback test on an SDH port of a Muxponder module.

Note For this command to execute successfully, the port must be in the OOS-MA state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---|
| OPR-LPBK-STM1: | [TID]:<aid>:[CTAG]:[<locn>],,,<lpbktype>; |
| OPR-LPBK-STM4: | |
| OPR-LPBK-STM16: | |
| OPR-LPBK-STM64: | |

Example command

```
OPR-LPBK-STM1:BTI7000:MXP-1-1-C1:100:,,,FACILITY;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/STM4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| locn | The location identifier | NEND (near end) | | Not applicable |
| lpbktype | The loopback type | FACILITY | | Not applicable |
| | | TERMINAL | | |
| | | Note For a terminal loopback, the port must be connected. | | |
| | | Note Only client ports support terminal loopback. | | |

OPR-LPBK-XCVR

The OPR-LPBK-XCVR command operates a loopback test on an SFP transceiver port on a Transponder module.

Note To use the OPR-LPBK-XCVR command, the transceiver port must first be removed from service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-LPBK-XCVR:[TID]:<aid>:CTAG::[<locn>],,,[<lpbktype>];
```

Example command

```
OPR-LPBK-XCVR:BTI7000:WR-1-1-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| locn | The location identifier | NEND (near end) | Not applicable |
| lpbktype | The loopback type. Options are: FACILITY: <ul style="list-style-type: none"> The port must be provisioned and out-of-service (OOS). If a two-way cross-connect exists, neither port can have a terminal loopback. TERMINAL: <ul style="list-style-type: none"> The port must be provisioned and out-of-service (OOS). A two-way cross-connect must exist. Neither port in the cross-connect may have any type of loopback. If the port is in a protection pair, the port must be in the working (WRK) state. If the port in a protection pair is in standby (STDBY) state, it must be | FACILITY TERMINAL | FACILITY |

| Parameter | Description | Range | Default |
|-----------|------------------------------------|-------|---------|
| | in OOS-MA or lockout (LKDO) state. | | |

OPR-OBR-HTSO

The OPR-OBR-HTSO command overrides the optical back reflection (OBR) high threshold safety alarm. This command operates an override timer that activates the lasers of the amplifier for the specified number of seconds. When the timer expires, the OBR-HTSO alarm clears.

Important The OBR-HTSO alarm indicates that the first-stage amplifier has shut down and the input signal is terminated, but the second-stage amplifier remains active. This results in the output power being automatically reduced to a maximum of 0 dBm when the threshold is crossed.

Note If the amplifier restarts, the OBR-HTSO condition ends automatically.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-OBR-HTSO:[TID]:<aid>:[CTAG]:::[TIME=<time>];
```

Example command

```
OPR-OBR-HTSO:BTI7000:OBA-1-2-1:100:::TIME=30;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| time | is an override timer that indicates how long the OBR-HTSO alarm is active. | OBA, OLA, OLAM, OPA, SBA, SPA: 20 to 600 seconds LGA, MGA, MGM: 1 to 120 seconds | 20 seconds |

OPR-PROTNSW-OCn

The OPR-PROTNSW-OCn commands instruct a SONET line facility object of a Muxponder module to initiate a line protection switch request:

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------------|---------------------------|
| OPR-PROTNSW-OC48: | [TID]:<aid>:[CTAG]::<sc>; |
| OPR-PROTNSW-OC192: | |

Example command

```
OPR-PROTNSW-OC48:BTI7000:MXP-1-3-L1:100::MAN;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|--|---------------------------------------|----------------|
| aid | The access identifier of the line facility object | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| sc | The switch command | FRCD (Forced) LOCKOUT (Lockout) MAN (Manual) | | Not applicable |

OPR-PROTNSW-STMn

The OPR-PROTNSW-STMn commands instruct an SDH line facility object of a Muxponder module to initiate a line protection switch request.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------------|---------------------------|
| OPR-PROTNSW-STM16: | [TID]:<aid>:[CTAG]::<sc>; |
| OPR-PROTNSW-STM64: | |

Example command

```
OPR-PROTNSW-STM16:BTI7000:MXP-1-3-L1:100::MAN;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|--|---------------------------------------|----------------|
| aid | The access identifier of the line facility object | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| sc | The switch command | FRCD (Forced) LOCKOUT (Lockout) MAN (Manual) | | Not applicable |

OPR-PROTNSW-STSn/STSnC

The OPR-PROTNSW-STSn/STSnC commands instruct an STS path facility object of a Muxponder module to initiate a SONET path protection switch request.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------------|---------------------------|
| OPR-PROTNSW-STSn: | [TID]:<aid>:[CTAG]::<sc>; |
| OPR-PROTNSW-STSnC: | |
| OPR-PROTNSW-STSn6C: | |
| OPR-PROTNSW-STSn9C: | |
| OPR-PROTNSW-STSn12C: | |
| OPR-PROTNSW-STSn15C: | |
| OPR-PROTNSW-STSn18C: | |
| OPR-PROTNSW-STSn21C: | |
| OPR-PROTNSW-STSn24C: | |
| OPR-PROTNSW-STSn30C: | |
| OPR-PROTNSW-STSn36C: | |
| OPR-PROTNSW-STSn48C: | |
| OPR-PROTNSW-STSn72C: | |
| | |

Example command

```
OPR-PROTNSW-STSn1:BTI7000:MXP-1-6-L1-1:100::MAN;
```


Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the STS path facility object | See 2.42 , “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| sc | The switch command | FRCD (Forced) LOCKOUT (Lockout) MAN (Manual) | Not applicable |

OPR-PROTNSW-VCn/VCnC

The OPR-PROTNSW-VCn/VCnC commands instruct a VC4 path facility object of a Muxponder module to initiate a SDH path protection switch request.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-------------------|---------------------------|
| OPR-PROTNSWVC4: | [TID]:<aid>:[CTAG]::<sc>; |
| OPR-PROTNSWVC2C: | |
| OPR-PROTNSWVC3C: | |
| OPR-PROTNSWVC4C: | |
| OPR-PROTNSWVC5C: | |
| OPR-PROTNSWVC6C: | |
| OPR-PROTNSWVC7C: | |
| OPR-PROTNSWVC8C: | |
| OPR-PROTNSWVC10C: | |
| OPR-PROTNSWVC12C: | |
| OPR-PROTNSWVC16C: | |
| OPR-PROTNSWVC24C: | |

Example command

```
OPR-PROTNSW-VC4:BTI7000:MXP-1-6-L1-1:100::MAN;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the path facility object | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| sc | The switch command | FRCD (Forced) LOCKOUT (Lockout) MAN (Manual) | Not applicable |

OPR-PROTNSW-XCVR

The OPR-PROTNSW-XCVR command initiates a protection switch request on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
OPR-PROTNSW-XCVR:[<tid>]:<aid>:[CTAG]::<sc>;
```

Example command

```
OPR-PROTNSW-XCVR:BTI7000:WM-1-1-2:100::MAN;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | not applicable |
| sc | The switch command | FRCD (Forced) LOCKOUT (Lockout) MAN (Manual) | Not applicable |

17.0 REPT messages

This section describes report (REPT) messages for the BTI 7000 Series.

- “REPT^ALM^BRI”
- “REPT^ALM^EQPT”
- “REPT^ALM^FC”
- “REPT^ALM^GE”
- “REPT^ALM^IP”
- “REPT^ALM^OA”
- “REPT^ALM^OC_n”
- “REPT^ALM^OSC”
- “REPT^ALM^PORT”
- “REPT^ALM^SECU”
- “REPT^ALM^STM_n”
- “REPT^ALM^STS_n/STS_nC”
- “REPT^ALM^VC_n/VC_nC”
- “REPT^ALM^WCH”
- “REPT^ALM^WDM”
- “REPT^ALM^XCVR”
- “REPT^DBCHG”
- “REPT^EVT^EQPT”
- “REPT^EVT^FC”

- “REPT^EVT^GE”
- “REPT^EVT^OCn”
- “REPT^EVT^STMn”
- “REPT^EVT^STS_n/STS_nC”
- “REPT^EVT^USER”
- “REPT^EVT^VCn/VCnC”
- “REPT^EVT^XCVR”
- “REPT^RMV^BRI”
- “REPT^RMV^EQPT”
- “REPT^RMV^FC”
- “REPT^RMV^GE”
- “REPT^RMV^IP”
- “REPT^RMV^OA”
- “REPT^RMV^OCn”
- “REPT^RMV^OSC”
- “REPT^RMV^OSPF”
- “REPT^RMV^PORT”
- “REPT^RMV^STMn”
- “REPT^RMV^WCH”
- “REPT^RMV^XCVR”
- “REPT^RST^BRI”
- “REPT^RST^EQPT”
- “REPT^RST^FC”
- “REPT^RST^GE”
- “REPT^RST^IP”
- “REPT^RST^OA”
- “REPT^RST^OCn”
- “REPT^RST^OSC”
- “REPT^RST^OSPF”
- “REPT^RST^PORT”
- “REPT^RST^STMn”
- “REPT^RST^WCH”
- “REPT^RST^WDM”

- “REPT^RST^XCVR”

REPT^ALM^BRI

The REPT^ALM^BRI message reports the onset or clearing of a condition that may require immediate attention to a Bit Rate Independent (BRI) client side port of a 8-Port Multiprotocol Muxponder module. This message does not report environmental alarms and it does not report non-alarmed conditions, which are reported with the REPT^EVT^BRI message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
** ATAG REPT ALM BRI cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
[<dirn>], [<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" ;
```

Example message

```
BTI7000 07-07-28 11:38:16
*C 118 REPT ALM BRI
    "MXP-1-3-C2:CR,LOS,SA,07-28,10-59-52,,,,,:\"Loss Of Signal.\",,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3.5)-(C1-C4) | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|---|----------------|
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^ENV

The REPT^ALM^ENV command reports a message when an environmental input is enabled:

- on a MSI module that supports environmental inputs (BT7A53BB/CB)
- on a MSI module that does not support environmental inputs (BT7A53BA/CA)

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
<cr> <lf> <lf>
^^^<sid>^<date>^<time> <cr> <lf>
<almcde>^<atag>^REPT^ALM^ENV <cr> <lf>
^^^"<aid>:<ntfcncde>,<almtpe>,<ocrdat>,<ocrtm>,<almmsg>" <cr> <lf>
;
```

Example messages

```
BTI7000 10-01-05 15:00:04
** 6 REPT ALM ENV
   "HKI-1:MN,AIRCOMPR,02-08,17-41-21,\"Air Compressor Failure\"";
BTI7000 10-01-05 15:00:04
** 6 REPT ALM ENV
   "HKI-1:MJ,UNSUPPORTED,02-08,17-41-21,\"Housekeeping Input Not Supported\"";
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier for the environmental alarm input | HKI-1 to HKI-6 | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| almtpe | The environmental alarm type code | See 2.7, "Environmental condition type (condtype)". | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| almmsg | The alarm message | String of 0 to 40 characters | Not applicable |

REPT^ALM^EQPT

The REPT^ALM^EQPT message reports the onset or clearing of a standing equipment condition that may require immediate attention. This message does not report environmental alarms and it does not report non-alarmed conditions, which are reported with the REPT^EVT^EQPT message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde> ATAG REPT ALM EQPT cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
  [<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblislt>]" cr lf
;
```

Example message

```
BTI7000 05-02-17 08:12:36
A 251615 REPT ALM EQPT
"OLAM-1-1:CL,REPLUNITMEA,NSA,02-17,08-10-57,,,,,:\"Clear equipment
mismatch.\" , , , , , \"
;
```

Example of a RELNUMMEA alarm message

The RELNUMMEA (Release Number Mismatch) alarm occurs when an SCP module is inserted into a shelf and the software versions of the two pieces of equipment conflict.

As shown in the example below, a RELNUMMEA alarm occurs when an SCP with a software release of 7.3.0 is inserted into a shelf that is running the optical modules on software release 7.2.1. The two software release numbers conflict and are a mismatch.

```
BTI7000 05-02-22 14:50:02
** 274 REPT ALM EQPT
"SCP-1-5:MJ,RELPARAM,NSA,02-22,14-50-02,,,,,:\"Release Number Mismatch.
\", , , \"Build 7.3.0\", \"Build 7.2.1\": , \"
;
```

Note In this example, the REPT^ALM^EQPT message shows the OBSDBHVR value for the SCP as Build 7.3.0 and the EXPTDBHVR value for the optical modules as Build 7.2.1.

Parameters

| Parameter | Description | Range | Default |
|-------------|---|---|----------------|
| aid | is the entity in the network element to which the message pertains | See 2.11, "Equipment AID (aid)" or 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)" or 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblislt | The trouble isolated | String | Not used |

REPT^ALM^FC

The REPT^ALM^FC message reports the onset or clearing of a condition that may require immediate attention to a Fibre Channel (FC) client side port of a 8-Port or 10-Port Multiprotocol Muxponder module. This message does not report environmental alarms and it does not report non-alarmed conditions, which are reported with the REPT^EVT^FC message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
** ATAG REPT-ALM-FC cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
[<dirn>], [<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" ;
```

Example message

```
BTI7000 07-07-28 11:38:16
*C 118 REPT ALM FC
      "MXP-1-3-C2:CR,LOS,SA,07-28,10-59-52,,,,,:\"Loss Of Signal.\",,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^GE

The REPT^ALM^GE message reports the onset or clearing of a condition that may require immediate attention to a gigabit Ethernet (GE) client side port of a Muxponder module. This message does not report environmental alarms and it does not report non-alarmed conditions, which are reported with the REPT^EVT^GE message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
** ATAG REPT ALM GE cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
[<dirn>], [<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" ;
```

Example message

```
BTI7000 07-07-28 11:38:16
*C 118 REPT ALM GE
      "MXP-1-6-C2:CR,LOS,SA,07-28,10-59-52,,,,,:\"Loss Of Signal.\",,,,,\"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblslt | The trouble isolated | String | Not used |

REPT^ALM^IP

The REPT^ALM^IP message reports the onset or clearing of a standing IP condition that may require immediate attention. This message does not report environmental alarms and it does not report non-alarmed conditions which are reported with the REPT^EVT^IP message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde> ATAG REPT ALM IP cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
  [<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" cr lf
;
```

Example message

```
NE-117 04-02-02 12:31:58
** 21 REPT ALM IP
  "IP-1-6-1:MJ,OSCLOS,NSA,02-02,12-31-56,,,,,:\"OSC Loss Of Signal.\",,,,:",
;
NE-117 04-02-02 12:32:28
A 24 REPT ALM IP
  "IP-1-6-1:CL,OSCLOS,NSA,02-02,12-32-27,,,,,:\"Clear OSC Loss Of Signal.
\",,,,:",
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| aid | The access identifier of the port | IP-1-1-(1,2) IP-1-5-(1-2) | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblisl | The trouble isolated | String | Not used |

REPT^ALM^OA

The REPT^ALM^OA message reports the onset or clearing of a standing optical amplifier condition that may require immediate attention. This message does not report environmental alarms and it does not report non-alarmed conditions which are reported with the REPT^EVT^OA message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde> ATAG REPT ALM OA cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
  [<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
  [<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblislt>]" cr lf
;
```

Example message

```
BTI7000 03-01-30 14:38:45
** 197 REPT ALM OA
  "OLAM-1-6-1:MJ,T-OPR-LT,NSA,01-30,14-38-44,,,-36.1,-29.0,:\\"Optical power
received minimum threshold exceeded.\",,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | OBA-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^OCn

The REPT^ALM^OCn messages report the onset or clearing of a condition that may require immediate attention to a SONET port of a Muxponder module. These messages do not report environmental alarms and non-alarmed conditions, which are reported with the REPT^EVT^OCn messages.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|--|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT ALM OC3: | <aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<timper>]:[<conddescr>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" cr lf ; |
| | REPT ALM OC12: | |
| | REPT ALM OC48: | |
| | REPT ALM OC192: | |

Example message

BTI7000 07-08-13 15:18:54

*C 214 REPT ALM OC3

"MXP-1-1-C1:CR,LOS,SA,08-13,15-18-13,,,,,:\"Loss Of Signal.\",,,,:,";

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|---|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | | Time |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^OSC

The REPT^ALM^OSC message reports alarms that are raised and cleared against an OSC on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
** ATAG REPT ALM OSC cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtm>,,,,,:
[<conddescr>],,,,,:,"
```

Example message

```
BTI7000 11-11-01 09:48:45 *a 452 REPT ALM OSC "ROB-11-1-L1:CL,LOLIGHT-RX,SA,
11-01,09-48-30,,,,,\\"Cleared: Receive loss of light\\",,,:";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the OSC facility | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

REPT^ALM^PORT

The REPT^ALM^PORT message reports alarms that are raised and cleared against a port on DOL.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
** ATAG REPT ALM PORT cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtm>,,,,,:
[<conddescr>],,,,,:,"
```

Example message

```
BTI7000 11-11-01 09:34:40
*C 214 REPT ALM PORT
      "DLA-1-3-C1:CR,LOLIGHT-RX,SA,11-01,09-34-37,,,,,:\"Receive loss of light
\\",,,,,:,";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.2, “AID type (aidtype) (for DOL)”. See 2.2, “AID type (aidtype) (for DOL)” . | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. See 2.28, “Notification code (ntfcncde)” . | Not applicable |
| condtype | The condition type code | See 2.6, “Condition type (condtype) (for DOL)”. See 2.6, “Condition type (condtype) (for DOL)” . | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtm | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |

REPT^ALM^SECU

The REPT^ALM^SECU message reports the onset or clearing of one of the following security standing conditions that may require immediate attention:

- After three unsuccessful logins from an existing user, the system raises the USRLCKOUT alarm and locks the user out of the system for about 60 seconds.
- After three unsuccessful logins from an IP address, the system raises the IPLCKOUT alarm and locks the IP address out of the system for about 60 seconds.
- In both cases, the number of failed attempts goes back to zero in about 60 seconds. This allows the user to try again after an elapsed period of time. Existing sessions connected to the locked-out IP address are not affected.
- The user identifier has expired and the system raises a UIDAGE alarm.
- To squelch the alarm, a superuser must enter the INH-USER-SECU command. However, the INH-USER-SECU command does not reset the timers. To clear the alarm, a superuser must enter the ED-USER-SECU command specifying the UAGE parameter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde> ATAG REPT ALM SECU cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
    [<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" cr lf
;
```

Example of user lockout message

```
BTI7000 05-05-06 04:28:14
* 13 REPT ALM SECU
  "USER:MN,USRLCKOUT,NSA,05-06,04-28-13,,,\"admin\",,:\"User locked out.
\",,,,:,\"
;
```

Example of IP lockout message

```
BTI70001 05-05-06 04:28:26
* 15 REPT ALM SECU
  "USER:MN,IPLCKOUT,NSA,05-06,04-28-26,,,\"192.168.172.1\",,:\"IP Address
locked out.\",,,,:,\"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The user identifier in the network element to which the message pertains, or the IP address from which a user attempts to log in to the network element. | USER | Not applicable |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | USRLCKOUT (IP address locked out) IPLCKOUT (User locked out) | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| oortim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |

| Parameter | Description | Range | Default |
|-------------|----------------------|--------|----------|
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^STMn

The REPT^ALM^STMn messages report the onset or clearing of a condition that may require immediate attention to an SDH port of a Muxponder module. These messages do not report environmental alarms and non-alarmed conditions, which are reported with the REPT^EVT^STMn messages.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|--|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT ALM STM1: | <aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,<locn>,<dirn>,<monval>,<thlev>,<tmper>:<conddescr>,<aiddet>,<obsdbhvr>,<exptdbhvr>:<termination>,<tblisltd>]" cr lf ; |
| | REPT ALM STM4: | |
| | REPT ALM STM16: | |
| | REPT ALM STM16: | |

Example message

BTI7000 07-09-14 11:59:36

*C 113 REPT ALM STM1

"MXP-1-1-C1:CR,LOS,SA,09-14,11-59-34,,,,,:\"Loss Of Signal.\",,,,,\"

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | STM1/4 | Not applicable |
| | | STM16 | |
| | | STM64 | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^STS_n/STS_nC

The REPT^ALM^STS_n/STS_nC messages report the onset or clearing of a condition that may require immediate attention to an STS path facility object of a SONET Muxponder module. These messages do not report environmental alarms and non-alarmed conditions, which are reported with the REPT^EVT^STS_n/STS_nC messages.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|------------------|--|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT ALM STS1: | <pre><aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" cr lf ;</pre> |
| | REPT ALM STS3C: | |
| | REPT ALM STS6C: | |
| | REPT ALM STS9C: | |
| | REPT ALM STS12C: | |
| | REPT ALM STS15C: | |
| | REPT ALM STS18C: | |
| | REPT ALM STS21C: | |
| | REPT ALM STS24C: | |
| | REPT ALM STS30C: | |
| | REPT ALM STS36C: | |
| | REPT ALM STS48C: | |
| | REPT ALM STS72C: | |

Example message

```
BTI7000 07-09-14 11:50:12
*C 65 REPT ALM STS1
    "MXP-1-1-L1-1:CR,UNEQ-P,SA,09-14,11-50-10,,,,,:\"Rx Unequipped.\",,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| aid | The access identifier of the path facility | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^VCn/VCnC

The REPT^ALM^VCn/VCnC messages report the onset or clearing of a condition that may require immediate attention to a VC4 path facility object of an SDH Muxponder module. These messages do not report environmental alarms and non-alarmed conditions, which are reported with the REPT^EVT^VCn/VCnC messages.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|--|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT ALM VC4: | <pre><aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltd>]" cr lf ;</pre> |
| | REPT ALM VC2C: | |
| | REPT ALM VC3C: | |
| | REPT ALM VC4C: | |
| | REPT ALM VC5C: | |
| | REPT ALM VC6C: | |
| | REPT ALM VC7C: | |
| | REPT ALM VC8C: | |
| | REPT ALM VC10C: | |
| | REPT ALM VC12C: | |
| | REPT ALM VC16C: | |
| | REPT ALM VC24C: | |

Example message

```
BTI7000 07-09-14 11:50:12
*C 65 REPT ALM VC4
    "MXP-1-1-L1-1:CR,UNEQ-P,SA,09-14,11-50-10,,,,,:\"Rx Unequipped.\",,,,:,"
;
```


Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| aid | The access identifier of the path facility | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^ALM^WCH

The REPT^ALM^WCH message reports alarms that are raised and cleared against a wavelength channel facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
** ATAG REPT ALM WCH cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtm>,,,,,:
[<conddescr>],,,,,:,"
```

Example message

```
BTI7000 11-11-02 10:25:53
*C 336 REPT ALM WCH
      "ROB-1-7-L1-210:CR,UNEQ-O,SA,11-02,09-40-52,,,,,:\"Channel unequipped
\\",,,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | See 2.2, “AID type (aidtype) (for DOL)”. DOL ”. | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. ntfcncde ”. | Not applicable |
| condtype | The condition type code | See 2.6, “Condition type (condtype) (for DOL)”. condtype ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtm | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

REPT^ALM^WDM

The REPT^ALM^WDM message reports alarms that are raised and cleared against a WDM entity.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
** ATAG REPT ALM WDM cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtm>,,,,,:"
[<conddescr>],,,,,:"
```

Example message

```
BTI7000 11-11-02 10:25:53
*C 3294 REPT ALM WDM
    "ROB-1-1-L1:MN,IAOCM,NSA,11-02,10-25-51,,,,,:"Invalid mid-amplifier
operating configuration\","",,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the WDM object | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type that is targeted by the message | WDM | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtm | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

REPT^ALM^XCVR

The REPT^ALM^XCVR message reports the onset or clearing of a standing transceiver condition on a Transponder module that may require immediate attention. This message does not report environmental alarms and non-alarmed conditions, which are reported with the REPT^EVT^EQPT message.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
<almcde>^ATAG^REPT^ALM^XCVR cr lf
"<aid>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,[<locn>],
  [<dirn>],[<monval>],[<thlev>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>],[<exptdbhvr>]:[<termination>],[<tblisltid>]" cr lf
;
```

Example message

```
BTI7000 05-02-03 07:51:17
** 511 REPT ALM XCVR
   "WR-1-2-1:MJ,REPLUNITMISS,SA,02-03,07-51-15,,,,,:\"SFP missing.\",,,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| srveff | The service effect value | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| termination | The termination | String | Not used |
| tblislt | The trouble isolated | String | Not used |

REPT^DBCHG

The REPT^DBCHG message reports network element database changes that have occurred as a result of commands entered to change equipment provisioning or configuration. This also includes changes to the value of the TID or SID, the values of the keywords defined in the common block and specific block, as well as the transition into and out of the OOS-MA state. Examples of events and commands that trigger this event include RMV, RST, ENT, ED, DLT, and REPT^EVT^EQPT.

Note The REPT^DBCHG messages are reported to all users, except for security-related commands that are reported to superusers only.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^DBCHG cr lf
    "update_mgnt_blk:cmd_cde_blk:aids([:data_blks]*") cr lf
;
```

Example message

```
BTI7000 02-04-14 05:55:16
A 2241 REPT DBCHG
    "TIME=05-55-16,DATE=02-04-14,SOURCE=100,LINKID=2-17,USERID=admin,
DBCHGSEQ=1254:ENT-EQPT:OLAM-1-1::BP1A04BA::IS"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|---|---|----------------|
| update_mgnt_blk | <p>The keyword-defined block that contains information about the management of the external update represented by the output response line.</p> <p>Information items include TIME DATE, SOURCE, LINKID, USERID, and DBCHGSEQ (database change report sequence) can reside in this block.</p> | <p>TIME=HH-MM-SS</p> <p>DATE=YY-MM-DD</p> <p>SOURCE=<alpha-numeric string of up to 20 characters></p> <p>Note</p> <p>If the REPT^DBCHG message is generated because of an input command, SOURCE contains the CTAG of that command.</p> <p>LINKID=<alpha-numeric string of up to 20 characters></p> <p>USERID=<alpha-numeric string of up to 20 characters></p> <p>Note</p> <p>LINKID and USERID provide additional identification information of the source that initiates the database changes. If this information is not available, then these fields are not included.</p> <p>DBCHGSEQ= <integer from 0 to 9999></p> <p>Note</p> <p>The DBCHGSEQ value is autonomously generated by the NE and assigned to each REPT^DBCHG message to indicate the order of the message in the sequence of REPT^DBCHG messages generated by the NE. The value is used by MA OS to check for any missing REPT^DBCHG messages.</p> | Not applicable |
| cmd_cde_blk | <p>The parameter block that indicates the command code information of the action that created the external update</p> <p>If a source other than a message created this update (for example, a hardware trigger), the equivalent command code that results in the same effect on the database is specified. The command code parameter can have up to three components: <verb or trigger type>-<modifier>[-<modifier>].</p> <p>Valid trigger type values include PLUGIN and UNPLUG that are reported in REPT^EVT^EQPT messages.</p> <p>Each modifier indicates the administrative view that is affected by</p> | The specified command code block | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| | the external update. Where verbs do not apply to an update, the type of update can be indicated. The multi-component parameter allows only one administrative view to be specified. | | |
| aid | The AID of each object entity that the external update affects | The AID of each affected entity Note Multiple AIDs are separated by '&' or '&&'. When no AID is associated with an object entity, this block can be left null. | Not applicable |
| data_blks | The blocks that describe the details of the change For the BTI 7000 Series, there can be up to three blocks: Common, Specific, and State. Most external updates readily translate the effect to these blocks because the update is affected by a similar action message. Where the update is not affected by such messages (for example, internal hardware triggered), these blocks contain information that explicitly indicate the keyword values that have changed. | 0 to 128 data blocks | Not applicable |

Guideline

The report for an ENT and ED database change event displays the RADIUS authentication key (shared key) as follows:

- If the default value is used, the word "default" is displayed.
- If a character string is used, the display includes a fixed-length string of only seven asterisks; for example, if the key is 123&83hhcz71 (12 characters) it appears as *****. (This limitation is a result of the whole DBCHG message character limit.)

REPT^EVT^EQPT

The REPT^EVT^EQPT message reports the occurrence of non-alarmed events. An example event is a database load failure.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG^REPT^EVT^EQPT cr lf  "<aid>:<condtype>,[<condeff>],<ocrdat>,<ocrtim> ,
[<locn>],[<dirn>],
    [<monval>],[<thlev>],[<tmper>]:<conddescr>,<aiddet>,<obsdbhvr> ,
[<exptdbhvr>]:[<dgntype>],[<tblisltd>]" cr lf
;
```

Example message

```
BTI7000 02-04-08 09:20:55
A 91 REPT EVT EQPT
    "SCP-1-5:DBKUPFAIL,,04-08,09-20-54,,,,:\"Database Backup Failed.\",,,:,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The entity in the network element to which the message pertains | See 2.11, "Equipment AID (aid)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------|
| | | Note Appears as \" conddescr \" | |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String | Not used |
| | | Note Appears as \" obsdbhvr \" | |
| exptdbhvr | The expected behavior | String | Not used |
| | | Note Appears as \" exptdbhvr \" | |
| dgntype | The diagnostic type | String | Not used |
| tblslt | The trouble isolated | String | Not used |

REPT^EVT^FC

The REPT^EVT^FC message reports the occurrence of non-alarmed events on a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT EVT FC cr lf "<aid>:<condtype>,[<condeff>],<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<tmper>]:<conddescr>,<aiddet>,<obsdbhvr>,<exptdbhvr>:<dgntype>,<tblislt>" ;
```

Example message

```
BTI7000 07-09-14 11:58:28
A 104 REPT EVT FC
    "MXP-1-1-C1:T-SES,,09-14,11-45-00,,,4,4,15-MIN:\"Severely errored seconds
threshold exceeded.\" , , , : , "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---------------------------|--|----------------|
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^EVT^GE

The REPT^EVT^GE message reports the occurrence of non-alarmed events on a gigabit Ethernet (GE) client side port of a Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT EVT GE cr lf "<aid>:<condtype>,[<condeff>],<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<timper>]:<conddescr>,<aiddet>,<obsdbhvr>,<exptdbhvr>:<dgntype>,<tblislt>" ;
```

Example message

```
BTI7000 07-09-14 11:58:28
A 104 REPT EVT GE
"MXP-1-1-C1:T-SES,,09-14,11-45-00,,,4,4,15-MIN:\"Severely errored seconds
threshold exceeded.\" , , , : , "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1,C10) | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| timper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------|
| | | Note Appears as \" conddescr \" | |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String | Not used |
| | | Note Appears as \" obsdbhvr \" | |
| exptdbhvr | The expected behavior | String | Not used |
| | | Note Appears as \" exptdbhvr \" | |
| dgntype | The diagnostic type | String | Not used |
| tblslt | The trouble isolated | String | Not used |

REPT^EVT^OCn

The REPT^EVT^OCn messages report the occurrence of non-alarmed events on a SONET port of a Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|---|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT EVT OC3: | <pre>"<aid>:<condtype>, [<condeff>],<ocrdat>,<ocrtim>, [<locn>],[<dirn>], [<monval>], [<thlev>], [<tmper>]:<conddescr>,<aiddet>,<ob sdbhvr>, <exptdbhvr>:<dgntype>,<tblislt>" ;</pre> |
| | REPT EVT OC12: | |
| | REPT EVT OC48: | |
| | REPT EVT OC192: | |

Example message

```
BTI7000 02-04-08 09:20:55
A 91 REPT EVT OC3 "MXP-1-1-C1:T-SEFS,,04-08,09-20-54,,,,,:"Section Severely
Errored Framing Seconds Threshold Exceeded.\",,,,:",
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|---------------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | | Time |
| locn | The monitoring location identifier | NEND (near end) | | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblslt | The trouble isolated | String | Not used |

REPT^EVT^STMn

The REPT^EVT^STMn messages report the occurrence of non-alarmed events on an SDH port of a Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|---|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT EVT STM1: | <pre>"<aid>:<condtype>, [<condeff>],<ocrdat>,<ocrtim>, [<locn>],[<dirn>], [<monval>], [<thlev>], [<tmper>]:<conddescr>,<aiddet>,<ob sdbhvr>, <exptdbhvr>:<dgntype>,<tblislt>" ;</pre> |
| | REPT EVT STM4: | |
| | REPT EVT STM16: | |
| | REPT EVT STM64: | |

Example message

```
BTI7000 07-09-14 11:59:34
A 110 REPT EVT STM1
"MXP-1-1-C1:T-RS-OFS,,09-14,11-45-00,,,2,2,15-MIN:"Regenerator Section
Out of Frames Seconds threshold exceeded.\
,,:, " ;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|---------------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | | Time |
| locn | The monitoring location identifier | NEND (near end) | | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^EVT^STS_n/STS_nC

The REPT^EVT^STS_n/STS_nC messages report the occurrence of non-alarmed events on a STS path facility object of a SONET Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|------------------|--|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf** ATAG</pre> | REPT EVT STS1: | <pre>"<aid>:<condtype>, [<condeff>],<ocrdat>,<ocrtim>, [<locn>],[<dirn>], [<monval>], [<thlev>], [<tmper>]:<conddescr>,<aiddet>,<ob sdbhvr>, <exptdbhvr>:<dgntype>,<tblislt>";</pre> |
| | REPT EVT ST3C: | |
| | REPT EVT ST6C: | |
| | REPT EVT ST9C: | |
| | REPT EVT STS12C: | |
| | REPT EVT STS15C: | |
| | REPT EVT STS18C: | |
| | REPT EVT STS21C: | |
| | REPT EVT STS24C: | |
| | REPT EVT STS30C: | |
| | REPT EVT STS36C: | |
| | REPT EVT STS48C: | |
| | REPT EVT STS72C: | |

Example message

BTI7000 07-08-17 15:54:47

A 1512 REPT EVT STS1

```
"MXP-1-6-L2-1:MANWKSUPR,TC,08-17,15-54-47,,,,,:\"Active facility manually
switched to protection.\"\\\",,,:\"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the path facility | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^EVT^USER

The REPT^EVT^USER message reports the need for a user to change his or her password.

Note To clear the situation, a user must perform an ED-PID and a superuser must perform an ED-USER-SECU. In both cases, the password must be changed to a different password than the previous one.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A  ATAG^REP^EVT^USER cr lf
   "<aid>:<evt_user_type>:\ "<description>\ " cr lf
;
```

Example message

```
BTI7000 05-09-27 17:35:26
A  12 REPT EVT USER
   "USER:SESSION:\ " - WARNING - Only authorized personnel may access this
equipment
.\ " "
;
BTI7000 05-09-27 17:35:26
M  100 COMPLD
;
```

Parameters

| Parameter | Description | Range | Default |
|---------------|------------------------|-----------------------------------|----------------|
| aid | The access identifier. | USER | Not applicable |
| evt_user_type | The event user type. | SESSION | Not applicable |
| description | The type of event. | 1 to 512 alphanumeric characters. | Not applicable |

Guideline

Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface).

REPT^EVT^VCn/VCnC

The REPT^EVT^VCn/VCnC messages report the occurrence of non-alarmed events on a VC4 path facility object of an SDH Muxponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|---|
| cr lf lf ^^^<sid>^<date>^<time> cr lf** ATAG | REPT-EVT-VC4: | "<aid>:<condtype>, [<condeff>],<ocrdat>,<ocrtim>, [<locn>],[<dirn>], [<monval>], [<thlev>], [<timper>]:<conddescr>,<aiddet>,<ob sdbhvr>, <exptdbhvr>:<dgntype>,<tblislt>" ; |
| | REPT-EVT-VC2C: | |
| | REPT-EVT-VC3C: | |
| | REPT-EVT-VC4C: | |
| | REPT-EVT-VC5C: | |
| | REPT-EVT-VC6C: | |
| | REPT-EVT-VC7C: | |
| | REPT-EVT-VC8C: | |
| | REPT-EVT-VC10C: | |
| | REPT-EVT-VC12C: | |
| | REPT-EVT-VC16C: | |
| | REPT-EVT-VC24C: | |

Example message

```
BTI7000 07-09-14 11:59:42
A 116 REPT EVT VC4
    "MXP-1-1-L1-1:T-HP-UAS,,09-14,11-45-00,,,10,10,15-MIN:\"High Order Path
    Unavailable seconds threshold exceeded.\" ,
    , "
    ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the path facility | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| monval | The monitored value | A decimal number made up of an integer and a fractional component | Not applicable |
| thlev | The threshold level | A decimal number made up of an integer and a fractional component | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblist | The trouble isolated | String | Not used |

REPT^EVT^XCVR

The REPT^EVT^XCVR message reports the occurrence of non-alarmed events on a transceiver port on a Transponder module. An example event is a threshold crossing.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG^REPT^EVT^XCVR cr lf  "<aid>:<condtype>,[<condeff>],<ocrdat>,<ocrtim>,[<locn>],[<dirn>],[<monval>],[<thlev>],[<tmper>]:<conddescr>,<aiddet>,<obsdbhvr>,[<exptdbhvr>]:[<dgntype>],[<tblisltd>]" cr lf
;
```

Example message

```
BTI7000 02-04-08 09:20:55
A 91 REPT EVT XCVR  "WM-1-2-1:T-SEFS,,04-08,09-20-54,,,,,:\"Severely Errored Framing Seconds Threshold Exceeded.\" , , , , , "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| condeff | The effect of the event on the condition of the network element | Not available in this release | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The monitoring location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| monval | The monitored value | Not available in this release | Not applicable |
| thlev | The threshold level | Not available in this release | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters. Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not used |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not used |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not used |
| dgntype | The diagnostic type | String | Not used |
| tblslt | The trouble isolated | String | Not used |

REPT^RMV^BRI

The REPT^RMV^BRI message is generated by the system after a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module has been removed from service autonomously.



Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT RMV BRI cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 11:58:26
A 103 REPT RMV BRI
  "MXP-1-1-C1:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^EQPT

The REPT^RMV^EQPT message is generated by the system after an equipment entity in the network element has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RMV^EQPT cr lf
    "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 02-11-22 08:06:40
A 12 REPT RMV EQPT
    "OLAM-1-1:OOS-MA,MT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The entity in the network element to which the message pertains | See 2.11 , “Equipment AID (aid)” or 2.2 , “AID type (aidtype) (for DOL)”. | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^FC

The REPT^RMV^FC message is generated by the system after a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT RMV FC cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 11:58:26
A 103 REPT RMV FC
  "MXP-1-1-C1:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^GE

The REPT^RMV^GE message is generated by the system after a gigabit Ethernet (GE) client side port of a Muxponder module has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT RMV GE cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 11:58:26
A 103 REPT RMV GE
  "MXP-1-1-C1:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1,C10) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^IP

The REPT^RMV^IP message is generated by the system after an IP interface in the network element has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RMV^IP cr lf
    "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 04-01-05 13:59:57
A 65 REPT RMV IP
    "IP-1-3-0:OOS-AU,UEQ&SGEO"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------|----------------|
| aid | The entity in the network element to which the message pertains | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^OA

The REPT^RMV^OA message is generated by the system after an optical amplifier has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RMV^OA cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 02-11-22 09:09:21
A 36 REPT RMV OA
  "OLAM-1-1-1:OOS-MAANR,MT&FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^OCn

The REPT^RMV^OCn messages are generated by the system after a SONET port of a Muxponder module has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|---|--|-----------------------------|
| cr lf lf ^^^<sid>^<date> >^<time> cr lf A ATAG | REPT-RMV-OC3: REPT-RMV-OC12: REPT-RMV-OC48: REPT-RMV-OC192: | cr lf "<aid>:<state>" cr lf |
|---|--|-----------------------------|

Example command and response

```
BTI7000 07-09-14 11:59:36
A 114 REPT RMV OC3
    "MXP-1-1-C1:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | | Not applicable |

REPT^RMV^OSC

The REPT^RMV^OSC message reports the removal from service of an OSC on a DOL.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RMV OSC cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example command and response

```
BTI7000 11-11-01 09:48:31
A 114 REPT RMV OSC
  "ROB-11-1-L1:OOS-AU,FLT";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| aid | The access identifier | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | IS IS-ANR IS-NR OOS OOS-AU OOS-AUMA OOS-MA OOS-MAANR Note IS and OOS support only input values, and specify the administrative status. All other values support only output, and report the operational status. | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

REPT^RMV^OSPF

The REPT^RMV^OSPF message is generated by the system after an Open Shortest-Protocol First (OSPF) routing protocol in the network element has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RMV^OSPF cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 04-01-05 13:58:20
A 60 REPT RMV OSPF
  "OSPF-1-3:OOS-AU,AINS&UEQ&SGEO"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The entity in the network element to which the message pertains | OSPF-(1,11,21,31)-(1-20) OSPF-(1,11, 21,31)- (1-20)-(0-3) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RMV^PORT

The REPT^RMV^PORT message reports the removal from service of a port on a DOL module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RMV PORT cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example command and response

```
BTI7000 11-11-01 09:34:35
A 954 REPT RMV PORT
  "DLA-1-1-L1:OOS-MA," ;
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--|----------------|
| aid | The access identifier of the port | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | Not applicable |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

REPT^RMV^STMn

The REPT^RMV^STMn messages are generated by the system after an SDH port of a Muxponder module has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|-----------------------------|
| <pre>cr lf lf ^^^<sid>^<date> >^<time> cr lf A ATAG</pre> | REPT-RMV-STM1: | cr lf "<aid>:<state>" cr lf |
| | REPT-RMV-STM4: | |
| | REPT-RMV-STM16: | |
| | REPT-RMV-STM64: | |

Example command and response

```
BTI7000 07-09-14 11:59:36
A 114 REPT RMV STM1
    "MXP-1-1-C1:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | | Not applicable |

REPT^RMV^WCH

The REPT^RMV^WCH message reports the removal from service of a wavelength channel facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RMV WCH cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example message

Parameters

```
BTI7000 11-11-01 09:34:35
A 954 REPT RMV WCH
  "ROB-1-3-L1-380:OOS-AU,FLT"
;
```

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the wavelength channel that is an endpoint to a cross-connection. | Wavelength Channel AID type See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| | Targets all wavelength channels on a ROB module line or client port. | <Module>-<Shelf>-<Slot>-<Port>-ALL | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | IS |
| sst | The secondary state of the equipment | AINS FLT MT SGEO Only the value AINS may be specified for input. | Not applicable |

REPT^RMV^WDM

The REPT^RMV^WDM message reports the removal from service of a WDM facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RMV WDM cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example message

```
BTI7000 11-11-01 09:34:35
A 954 REPT RMV WDM
  "DLA-1-1-L1:OOS-MA," ;
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--|----------------|
| aid | The access identifier of the WDM | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | Not applicable |
| sst | The secondary state of the equipment | AINS FLT MT SGEO | Not applicable |

REPT^RMV^XCVR

The REPT^RMV^XCVR message is generated by the system after a port on a Transponder module has been removed from service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RMV^XCVR cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 05-02-03 07:51:18
A 514 REPT RMV XCVR
  "WM-1-2-1:OOS-AU,UEQ"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^BRI

The REPT^RST^BRI message is generated by the system after a Bit Rate Independent (BRI) client side port of a 8-Port Multiprotocol Muxponder module has been restored to service autonomously.



Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT RST BRI cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 12:06:52
A 211 REPT RST BRI
  "MXP-1-1-C1:IS-NR, "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^EQPT

The REPT^RST^EQPT message is sent by the system after an equipment entity has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RST^EQPT cr lf
    "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 02-11-22 08:13:06
A 15 REPT RST EQPT
    "OLAM-1-1:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | See 2.11, "Equipment AID (aid)" . | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^FC

The REPT^RST^FC message is generated by the system after a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module is restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT-RST-FC cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 12:06:52
A 211 REPT RST FC
  "MXP-1-1-C1:IS-NR, "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^GE

The REPT^RST^GE message is generated by the system after a gigabit Ethernet (GE) client side port of a Muxponder module has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A ATAG REPT-RST-GE cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 07-09-14 12:06:52
A 211 REPT RST GE
  "MXP-1-1-C1:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1,C10) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^IP

The REPT^RST^IP message is generated by the system after an IP interface in the network element has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RST^IP cr lf
    "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 04-01-05 13:57:23
M 100 COMPLD
;
BTI7000>
BTI7000 04-01-05 13:57:25
A 57 REPT DBCHG
    "TIME=13-57-25,DATE=04-01-05,SOURCE=0000,DBCHGSEQ=38:ED-IP:
IP-1-3-0:::OOS-AU,UEQ&SGEO"
;
BTI7000 04-01-05 13:57:25
A 58 REPT DBCHG
    "TIME=13-57-25,DATE=04-01-05,SOURCE=100,LINKID=2-15,USERID=admin,
DBCHGSEQ=39:RST-IP:IP-1-3-0"
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------|----------------|
| aid | The entity in the network element to which the message pertains | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^OA

The REPT^RST^OA message is sent by the system after an optical amplifier has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RST^OA cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 02-11-22 09:17:55
A 39 REPT RST OA
  "OLAM-1-1-1:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^OCn

The REPT^RST^OCn messages are generated by the system after a SONET port of a Muxponder module has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|---|-----------------|-----------------------------|
| cr lf lf ^^^<sid>^<date> >^<time> cr lf A ATAG | REPT-RST-OC3: | cr lf "<aid>:<state>" cr lf |
| | REPT-RSt-OC12: | |
| | REPT-RST-OC48: | |
| | REPT-RST-OC192: | |

Example command and response

```
BTI7000 07-09-14 12:00:30
A 169 REPT RST OC3
    "MXP-1-1-C1:IS-NR, "
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | | Not applicable |

REPT^RST^OSC

The REPT^RST^OSC message reports the restoration to service the DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RST OSC cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example command and response

```
BTI7000 11-11-01 09:48:45
A 454 REPT RST OSC
  "ROB-11-1-L1:IS-NR,";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the OSC on a ROB or DLA pack. | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | IS IS-ANR IS-NR OOS OOS-AU OOS-AUMA OOS-MA OOS-MAANR Note IS and OOS support only input values, and specify the administrative status. All other values support only output, and report the operational status. | Not applicable |
| sst | The secondary state of the equipment | AINS FLT MT SGEO | Not applicable |

REPT^RST^OSPF

The REPT^RST^OSPF message is generated by the system after an Open Shortest-Path First (OSPF) routing protocol in the network element has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A 170 REPT RST OSPF
    "OSPF-1-5:IS-NR,"
;
```

Example message

```
BTI7000 04-01-05 13:58:20
A 60 REPT RST OSPF
    "OSPF-1-3:OOS-AU,AINS&UEQ&SGEO"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--------------------------|----------------|
| aid | The entity in the network element to which the message pertains | OSPF-(1,11,21,31)-(1-20) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

REPT^RST^PORT

The REPT^RST^PORT message reports the restoration to service of al port on a DOL module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RST PORT cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example command and response

```
BTI7000 11-11-01 09:37:40
A 964 REPT RST PORT
  "DLA-1-1-C1:IS-NR," ;
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--|----------------|
| aid | The access identifier of the port | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | Not applicable |
| sst | The secondary state of the equipment | AINS FLT MT SGEO | Not applicable |

REPT^RST^STMn

The REPT^RST^STMn messages are generated by the system after an SDH port of a Muxponder module has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | | |
|--|-----------------|-----------------------------|
| cr lf lf ^^^<sid>^<date>^<time> cr lf A ATAG | REPT-RST-STM1: | cr lf "<aid>:<state>" cr lf |
| | REPT-RST-STM4: | |
| | REPT-RST-STM16: | |
| | REPT-RST-STM64: | |

Example command and response

```
BTI7000 07-09-14 12:00:30
A 169 REPT RST STM1
    "MXP-1-1-C1:IS-NR, "
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | | Not applicable |

REPT^RST^WCH

The REPT^RST^WCH message reports the restoration to service of a wavelength channel of a wavelength channel facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RST WCH cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example message

```
BTI7000 11-11-01 09:37:40
A 971 REPT RST WCH
  "ROB-1-3-L1-380:IS-NR," ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the wavelength channel that is an endpoint to a cross-connection. | Wavelength Channel AID type See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| | Targets all wavelength channels on a ROB module line or client port. | <Module>-<Shelf>-<Slot>-<Port>-ALL | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | Not applicable |
| sst | The secondary state of the equipment | AINS FLT MT SGEO | Not applicable |

REPT^RST^WDM

The REPT^RST^WDM message reports the restoration to service of a WDM entity.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<aid>^<date>^<time> cr lf
A ATAG REPT RST WDM cr lf
  "<aid>:<pst>,<sst>" cr lf
;
```

Example message

```
BTI7000 11-11-01 09:37:40
A 169 REPT RST WDM
  "DLA-1-1-L1:IS-NR,";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|--|----------------|
| aid | The access identifier of the WDM | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | Not applicable |
| sst | The secondary state of the equipment | AINS FLT MT SGEO | Not applicable |

REPT^RST^XCVR

The REPT^RST^XCVR message is generated by the system after a port on a Transponder module has been restored to service autonomously.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
A^^ATAG^REPT^RST^XCVR cr lf
  "<aid>:<state>" cr lf
;
```

Example message

```
BTI7000 05-02-03 07:51:18
A 514 REPT RST XCVR
  "WR-1-2-1:IS,NR"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| state | The full state (that is, primary state plus secondary state) into which the entity is placed | String | Not applicable |

18.0 RLS commands

This section describes release (RLS) commands for the BTI 7000 Series.

- “RLS-LPBK-BRI”
- “RLS-LPBK-FC”
- “RLS-LPBK-GE”
- “RLS-LPBK-OC_n”
- “RLS-LPBK-STM_n”
- “RLS-LPBK-XCVR”
- “RLS-PROTNSW-OC_n”
- “RLS-PROTNSW-STM_n”
- “RLS-PROTNSW-STSn/STSnC”
- “RLS-PROTNSW-VC_n/VC_nC”
- “RLS-PROTNSW-XCVR”

RLS-LPBK-BRI

The RLS-LPBK-BRI command releases a loopback on a Bit Rate Independent (BRI) client side port on an 8-Port Multiprotocol Muxponder module.



Syntax

```
RLS-LPBK-BRI:[TID]:<aid>:[CTAG]::;
```

Example command

```
RLS-LPBK-BRI:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |

RLS-LPBK-FC

The RLS-LPBK-FC command releases a loopback Fibre Channel client (FC) side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RLS-LPBK-FC:[TID]:<aid>:[CTAG]::;
```

Example command

```
RLS-LPBK-FC:BTI7000:MXP-1-3-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(C1-C10) | Not applicable |

RLS-LPBK-GE

The RLS-LPBK-GE command releases a loopback gigabit Ethernet client (GE) side port of a Muxponder module.



Syntax

```
RLS-LPBK-GE:[TID]:<aid>:[CTAG]::;
```

Example command

```
RLS-LPBK-GE:BTI7000:MXP-1-6-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|-----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1-20)-(C1-C10) | Not applicable |

RLS-LPBK-OCn

The RLS-LPBK-OCn commands release a loopback SONET line or client port on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---------------------------|
| RLS-LPBK-OC3: | BTI7000:MXP-1-1-L1:100::; |
| RLS-LPBK-OC12: | |
| RLS-LPBK-OC48: | |
| RLS-LPBK-OC192: | |

Example command

```
RLS-LPBK-OC3:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RLS-LPBK-STMn

The RLS-LPBK-OCn commands release a loopback SDH line or client port on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|------------------|-----------------------|
| RLS-LPBK-STM1 : | [TID]:<aid>:[CTAG]::; |
| RLS-LPBK-STM4 : | |
| RLS-LPBK-STM16 : | |
| RLS-LPBK-STM64 : | |

Example command

```
RLS-LPBK-STM1:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|-----------|--|----------------|
| aid | The access identifier of the port | STM1/STM4 | MXP-(1,11,21,31)-(1,3,5...19)-(,C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RLS-LPBK-XCVR

The RLS-LPBK-XCVR command releases a loopback transceiver on a Transponder module.

Note After a loopback is released, the port must be placed in the In Service-Normal (IS-NR) state using the RST-XCVR command.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RLS-LPBK-XCVR:[TID]:<aid>:CTAG::[<locn>],,,[<lpbktype>];
```

Example command

```
RLS-LPBK-XCVR:BTI7000:WR-1-1-1;;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| locn | The location | NEND (near end) | NEND |
| lpbktype | The loopback type | FACILITY | FACILITY |

RLS-PROTNSW-OCn

Each RLS-PROTNSW-OCn command instructs a SONET line facility object of a Muxponder module to release (clear) the SONET line protection switch request established with the corresponding OPR-PROTNSW-OCn command.

Note Only protection switches operated with the SWITCH COMMAND (<sc>) parameter set to FRCD or LOCKOUT can be released.

Note Each command assumes that only one user-initiated switch request is active per entity (AID).

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------------|---------------------|
| RLS-PROTNSW-OC48: | [TID]:<aid>:[CTAG]; |
| RLS-PROTNSW-OC192: | |

Example command

```
RLS-PROTNSW-OC48:BTI7000:MXP-1-1-L1-1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|-------|---------------------------------------|----------------|
| aid | The access identifier of the line facility object | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2) | Not applicable |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RLS-PROTNSW-STMn

Each RLS-PROTNSW-STMn command instructs an STM line facility object of a Muxponder module to release (clear) an SDH line protection switch request established with the corresponding OPR-PROTNSW-STMn command.

Note Only protection switches operated with the SWITCH COMMAND (<sc>) parameter set to FRCD or LOCKOUT can be released.

Note Each command assumes that only one user-initiated switch request is active per entity (AID).

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------------|---------------------|
| RLS-PROTNSW-STM16: | [TID]:<aid>:[CTAG]; |
| RLS-PROTNSW-STM64: | |

Example command

```
RLS-PROTNSW-STM16:BTI7000:MXP-1-1-L1-1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|-------|---------------------------------------|----------------|
| aid | The access identifier of the line facility object | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2) | Not applicable |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RLS-PROTNSW-STSn/STSnC

Each RLS-PROTNSW-STSn/STSnC command instructs an STS path facility object of a Muxponder module to release (clear) a SONET path protection switch request that was established with the corresponding OPR-PROTNSW-STSn/STSnC command. This command assumes that only one user-initiated switch request is active per entity (that is, per AID).

Note Only protection switches operated with the SWITCH COMMAND (<sc>) parameter set to FRCD or LOCKOUT can be released.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------------|---------------------|
| RLS-PROTNSW-STSn: | [TID]:<aid>:[CTAG]; |
| RLS-PROTNSW-STSnC: | |
| RLS-PROTNSW-STSn6C: | |
| RLS-PROTNSW-STSn9C: | |
| RLS-PROTNSW-STSn12C: | |
| RLS-PROTNSW-STSn15C: | |
| RLS-PROTNSW-STSn18C: | |
| RLS-PROTNSW-STSn21C: | |
| RLS-PROTNSW-STSn24C: | |
| RLS-PROTNSW-STSn30C: | |
| RLS-PROTNSW-STSn36C: | |
| RLS-PROTNSW-STSn48C: | |
| RLS-PROTNSW-STSn72C: | |

Example command

```
RLS-PROTNSW-STSn1:BTI7000:MXP-1-6-L1-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the STS path facility object | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |

RLS-PROTNSW-VCn/VCnC

Each RLS-PROTNSW-VCn/VCnC command instructs a VC4 path facility object of a Muxponder module to release (clear) an SDH path protection switch request that was established with the corresponding OPR-PROTNSW-VCn/VCnC command. This command assumes that only one user-initiated switch request is active per entity (that is, per AID).

Note Only protection switches operated with the SWITCH COMMAND (<sc>) parameter set to FRCD or LOCKOUT can be released.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

History

| Release | Modification |
|---------|---|
| 7.3.1 | Introduced the commands RLS-PROTNSW-VC3C/VC5C/VC10. |

Syntax

| | |
|--------------------|---------------------|
| RLS-PROTNSW-VC4: | [TID]:<aid>:[CTAG]; |
| RLS-PROTNSW-VC2C: | |
| RLS-PROTNSW-VC3C: | |
| RLS-PROTNSW-VC4C: | |
| RLS-PROTNSW-VC5C: | |
| RLS-PROTNSW-VC6C: | |
| RLS-PROTNSW-VC7C: | |
| RLS-PROTNSW-VC8C: | |
| RLS-PROTNSW-VC10C: | |
| RLS-PROTNSW-VC12C: | |
| RLS-PROTNSW-VC16C: | |
| RLS-PROTNSW-VC24C: | |

Example command

```
RLS-PROTNSW-VC4:BTI7000:MXP-1-6-L1-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the path facility object | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |

RLS-PROTNSW-XCVR

The RLS-PROTNSW-XCVR command releases a protection switch, established with the OPR-PROTNSW-XCVR command.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RLS-PROTNSW-XCVR:[<tid>]:<aid>:[CTAG]::;
```

Example command

```
RLS-PROTNSW-XCVR:BTI7000:WM-1-1-2:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

19.0 RMV commands

This section describes remove (RMV) commands for the BTI 7000 Series.

- “RMV-BRI”
- “RMV-EQPT”
- “RMV-FC”
- “RMV-GCC0”
- “RMV-GE”
- “RMV-IP”
- “RMV-OA”
- “RMV-OC_n”
- “RMV-ODCC”
- “RMV-OL-OSC”
- “RMV-OSPF”
- “RMV-OSPF-IF”
- “RMV-STM_n”
- “RMV-WCH”
- “RMV-WDM”
- “RMV-XCVR”

RMV-BRI

The RMV-BRI command removes a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module from service and puts the port in the out-of-service (OOS) state.



Syntax

```
RMV-BRI:[TID]:<src>:[CTAG]::;
```

Example command

```
RMV-BRI:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--------------------------------------|----------------|
| src | The source access identifier of the port | MP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |

RMV-EQPT

The RMV-EQPT command removes the specified equipment from service and puts the equipment in the out-of-service (OOS) maintenance state.

Before executing this command on either optical amplifier modules or the Optical Supervisory Channel (OSC), all supported children must be put out of service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-EQPT:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-EQPT:BTI7000:OLAM-1-1:100;
```

Parameters

| Parameter | Description | Range | Default Value |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | See 2.11, "Equipment AID (aid)", or 2.2, "AID type (aidtype) (for DOL)" | Not applicable |

RMV-FC

The RMV-FC command removes a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module from service and puts the port in the out-of-service (OOS) state.



Syntax

```
RMV-FC:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-FC:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |

RMV-GCC0

The RMV-GCC0 command puts a GCC0 service in the out-of-service (OOS) maintenance state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-GCC0:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-GCC0:BTI7000:MXP-1-3-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |

RMV-GE

The RMV-GE command removes a gigabit Ethernet (GE) client side port of a Muxponder module from service and puts the port in the out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-GE:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-GE:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---------------------------------|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1-20)-(C1-10) | Not applicable |

RMV-IP

The RMV-IP command removes an IP interface from service and puts the IP interface in the out-of-service (OOS) maintenance state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-IP:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-IP:BTI7000:IP-1-5-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|------------------------------|----------------|
| aid | The access identifier | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |

RMV-OA

The RMV-OA command removes an optical amplifier from service and puts the optical amplifier in the out-of-service (OOS) maintenance state. Removing an amplifier from service has an effect on traffic because it turns the lasers off and suppresses the amplifier alarms.

Caution Removing an optical amplifier from service can result in the loss of traffic through the optical amplifiers and loss of connections to the BTI 7000 Series.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-OA:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-OA:BTI7000:OLAM-1-1-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |

RMV-OCn

The RMV-OCn commands remove a SONET line or client port of Muxponder module from service and puts the port in the out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|------------|-----------------------|
| RMV-OC3: | [TID]:<aid>:[CTAG]::; |
| RMV-OC12: | |
| RMV-OC48: | |
| RMV-OC192: | |

Example command

```
RMV-OC3:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RMV-ODCC

The RMV-ODCC command removes from service an OSC Data Communication Channel (ODCC) facility on a DOL module.



Syntax

```
RMV-ODCC:[TID]:<aid>:[CTAG];
```

Example command

```
RMV-ODCC:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the ODCC object on the DOL OSC. | 2.2, “ AID type (aidtype) (for DOL) ” | Not applicable |

RMV-OL-OSC

The RMV-OL-OSC command removes from service an OSC facility on a DOL module.

Before executing this command, the WDM entity and ODCC facility on the same module must be removed from service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-OL-OSC:[TID]:<aid>:[CTAG];
```

Example command

```
RMV-OL-OSC:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| aid | The access identifier of the DOL OSC | See 2.2, “ AID type (aidtype) (for DOL) ” | Not applicable |

RMV-OSPF

The RMV-OSPF command removes an Open Shortest-Path First (OSPF) process from service and puts the OSPF in the out-of-service (OOS) maintenance state.

Note OSPF neighbors may not be re-initialized after a cold restart of the circuit pack. Perform a remove/restore OSPF (RMV-OSPF and RST-OSPF) on the module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-OSPF:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-OSPF:BTI7000:OSPF-1-5:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|----------------------|----------------|
| aid | The access identifier | OSPF-1-3 OSPF-1-5 | Not applicable |

RMV-OSPF-IF

The RMV-OSPF-IF command removes an Open Shortest-Path First (OSPF) interface from service and puts the OSPF interface out-of-service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-OSPF-IF:[TID]:[<aid>]:[CTAG]::;
```

Example command

```
RMV-OSPF-IF:BTI7000:OSPF-1-1-1:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--------------------------------|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(0-3) | Not applicable |

RMV-STMn

The RMV-STMn commands remove an SDH line or client port of Muxponder module from service and puts the port in the out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-------------|-----------------------|
| RMV-STM1 : | [TID]:<aid>:[CTAG]::; |
| RMV-STM4 : | |
| RMV-STM16 : | |
| RMV-STM64 : | |

Example command

```
RMV-STM1:BTI7000:MXP-1-1-C1:100::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RMV-WCH

The RMV-WCH command removes from service a wavelength channel facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-WCH:[TID]:<aid>:[CTAG];
```

Example command

```
RMV-WCH:BTI7000:ROB-1-3-L1-580:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the wavelength channel that is an endpoint to a cross-connection | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

RMV-WDM

The RMV-WDM command removes from service a WDM entity.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-WDM:[TID]:<aid>:[CTAG];
```

Example command

```
RMV-WDM:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the WDM facility on DLA and ROB packs. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

RMV-XCVR

The RMV-XCVR command removes a port on a Transponder module from service and puts the port in the out-of-service (OOS) maintenance state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RMV-XCVR:[TID]:<aid>:[CTAG]::;
```

Example command

```
RMV-XCVR:BTI7000:WR-1-1-1::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

20.0 RST commands

This section describes restore (RST) commands for the BTI 7000 Series.

- “RST-BRI”
- “RST-EQPT”
- “RST-FC”
- “RST-GCC0”
- “RST-GE”
- “RST-IP”
- “RST-OA”
- “RST-OC_n”
- “RST-ODCC”
- “RST-OL-OSC”
- “RST-OSPF”
- “RST-OSPF-IF”
- “RST-STM_n”
- “RST-WCH”
- “RST-WDM”
- “RST-XCVR”

RST-BRI

The RST-BRI command restores a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module to an in-service (IS) state from an out-of-service (OOS) state.



Syntax

```
RST-BRI:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-BRI:BTI7000:MXP-1-1-C2:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---------------------------------------|----------------|
| aid | The source access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |

RST-EQPT

The RST-EQPT command restores a specified piece of equipment back to an in-service state (IS) from an out-of-service maintenance (OOS-MA) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-EQPT:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-EQPT:BTI7000:OLAM-1-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the equipment | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)” | Not applicable |

RST-FC

The RST-FC command restores a Fibre Channel (FC) client side port of a 8-Port or 10-Port Multiprotocol Muxponder module to an in-service (IS) state from an out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-FC:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-FC:BTI7000:MXP-1-3-C2:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |

RST-GCC0

The RST-GCC0 command restores a GCC0 service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-GCC0:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-GCC0:BTI7000:TPR-1-3-3:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |

RST-GE

The RST-GE command restores a gigabit Ethernet (GE) client side port of a Muxponder module to an in-service (IS) state from an out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-GE:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-GE:BTI7000:MXP-1-6-C2:100::;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|----------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |

RST-IP

The RST-IP command restores an IP interface to service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-IP:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-IP:BTI7000:IP-1-3-0:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|------------------------------|----------------|
| aid | The access identifier | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |

RST-OA

The RST-OA command restores an optical amplifier back to an in-service (IS) state by turning the lasers on.

Note The supporting amplifier equipment must be in service for this command to function.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-OA:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-OA:BTI7000:OLAM-1-1-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the optical amplifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |

RST-OCn

The RST-OCn commands restore a SONET port of a Muxponder module to an in-service (IS) state from an out-of-service (OOS) state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|------------|-----------------------|
| RST-OC3: | [TID]:<aid>:[CTAG]::; |
| RST-OC12: | |
| RST-OC48: | |
| RST-OC192: | |

Example command

```
RST-OC3:BTI7000:MXP-1-1-L1:100::::;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RST-ODCC

The RST-ODCC command restores to service an OSC Data Communication Channel (ODCC) facility on a DOL module.



Syntax

```
RST-ODCC:[TID]:<aid>:[CTAG];
```

Example command

```
RST-ODCC:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the ODCC object on the DOL OSC. | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

RST-OL-OSC

The RST-OL-OSC command restores to service an OSC facility on a DOL module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-OL-OSC:[TID]:[<aid>]:[CTAG];
```

Example command

```
RST-OL-OSC:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| aid | The access identifier of the DOL OSC | See 2.2, “AID type (aidtype) (for DOL)” | Not applicable |

RST-OSPF

The RST-OSPF command restores an Open Shortest-Path First (OSPF) process service.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-OSPF:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-OSPF:BTI7000:OSPF-1-3:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|----------------------|----------------|
| aid | The access identifier | OSPF-1-3 OSPF-1-5 | Not applicable |

RST-OSPF-IF

The RST-OSPF-IF command restores an Open Shortest-Path First (OSPF) interface to service.

Note OSPF neighbors may not be reinitialized after a cold restart of the module. Perform a remove/restore OSPF (RMV-OSPF and RST-OSPF) on the module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-OSPF-IF:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-OSPF-IF:BTI7000:OSPF-1-3-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--------------------------------|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(0-3) | Not applicable |

RST-STMn

The RST-STM1 command restores an SDH port of a Muxponder module back to an in-service (IS) state from an out-of-service (OOS) state:

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-------------|-----------------------|
| RST-STM1 : | [TID]:<aid>:[CTAG]::; |
| RST-STM4 : | |
| RST-STM16 : | |
| RST-STM64 : | |

Example command

```
RST-STM1:BTI7000:MXP-1-1-C1:100::,
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|-----------------------------------|--------|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |

RST-WCH

The RST-WCH command restores to service a wavelength channel facility.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-WCH:[TID]:<aid>:[CTAG];
```

Example command

```
RST-WCH:BTI7000:ROB-1-3-L1-580:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the wavelength channel that is an endpoint to a cross-connection | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |

RST-WDM

The RST-WDM command restores to service a WDM entity.



Syntax

```
RST-WDM:[TID]:<aid>:[CTAG];
```

Example command

```
RST-WDM:BTI7000:ROB-1-7-L1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the WDM facility on DLA and ROB packs. | See 2.2 , “ AID type (aidtype) (for DOL) ”. | Not applicable |

RST-XCVR

The RST-XCVR command restores a port on a Transponder module to the in-service state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RST-XCVR:[TID]:<aid>:[CTAG]::;
```

Example command

```
RST-XCVR:BTI7000:WR-1-1-1:100;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

21.0 RTRV commands

This section describes the retrieve (RTRV) commands for the BTI 7000 Series.

- “RTRV-ACT-USER”
- “RTRV-ALM-ALL”
- “RTRV-ALM-BRI”
- “RTRV-ALM-EQPT”
- “RTRV-ALM-FC”
- “RTRV-ALM-GE”
- “RTRV-ALM-IP”
- “RTRV-ALM-OA”
- “RTRV-ALM-OC_n”
- “RTRV-ALM-ODU1”
- “RTRV-ALM-OSC”
- “RTRV-ALM-PORT”
- “RTRV-ALM-SECU”
- “RTRV-ALM-STM_n”
- “RTRV-ALM-STSn/STSnC”
- “RTRV-ALM-SUBODU1”
- “RTRV-ALM-VC_n/VC_nC”
- “RTRV-ALM-WCH”
- “RTRV-ALM-WDM”

- “RTRV-ALM-XCVR”
- “RTRV-ARP”
- “RTRV-ATTR-ALL”
- “RTRV-ATTR-EVT”
- “RTRV-ATTR-LOG”
- “RTRV-ATTR-SECULOG”
- “RTRV-AUTH-PRIORITY”
- “RTRV-AUTH-SERV”
- “RTRV-BRI”
- “RTRV-COND-ALL”
- “RTRV-COND-BRI”
- “RTRV-COND-EQPT”
- “RTRV-COND-FC”
- “RTRV-COND-GE”
- “RTRV-COND-IP”
- “RTRV-COND-OA”
- “RTRV-COND-OCn”
- “ RTRV-COND-ODU1”
- “RTRV-COND-OSC”
- “RTRV-COND-PORT”
- “RTRV-COND-SECU”
- “RTRV-COND-STMn”
- “RTRV-COND-STSn/STSnC”
- “ RTRV-COND-SUBODU1”
- “RTRV-COND-VCn/VCnC”
- “RTRV-COND-WCH”
- “RTRV-COND-WDM”
- “RTRV-COND-XCVR”
- “RTRV-CONN-EQPT”
- “RTRV-CRS-ODU1”
- “RTRV-CRS-STSn/STSnC”
- “RTRV-CRS-SUBODU1”
- “RTRV-CRS-VCn/VCnC”

- “RTRV-CRS-VCG”
- “RTRV-CRS-WCH”
- “RTRV-CRS-XCVR”
- “RTRV-DB-RST”
- “RTRV-EQPT”
- “RTRV-FC”
- “RTRV-FE”
- “RTRV-FFP-OC_n”
- “RTRV-FFP-STM_n”
- “RTRV-FFP-XCVR”
- “RTRV-GCC0”
- “RTRV-GE”
- “RTRV-HDR”
- “RTRV-HLP-AID”
- “RTRV-HLP-CMD”
- “RTRV-HLP-ENUM”
- “RTRV-INV”
- “RTRV-IP”
- “RTRV-LOG”
- “RTRV-NETTYPE”
- “RTRV-NGBR”
- “RTRV-NTP”
- “RTRV-NTPASSOC”
- “RTRV-OA”
- “RTRV-OC3”
- “RTRV-OC12”
- “RTRV-OC48”
- “RTRV-OC192”
- “RTRV-ODCC”
- “RTRV-OL-EQPT”
- “RTRV-OL-GROUP”
- “RTRV-OL-PORT”
- “RTRV-OL-OSC”

- “RTRV-OSPF”
- “RTRV-OSPF-IF”
- “RTRV-OSPF-LSDB”
- “RTRV-OSPF-NGHBR”
- “RTRV-PM-BRI”
- “RTRV-PM-EQPT”
- “RTRV-PM-FC”
- “RTRV-PM-GE”
- “RTRV-PM-OA”
- “RTRV-PM-OCn”
- “RTRV-PM-OSC”
- “RTRV-PM-PORT”
- “RTRV-PM-STMn”
- “RTRV-PM-STSn/STSnC”
- “RTRV-PM-VCn/VCnC”
- “RTRV-PM-WCH”
- “RTRV-PM-XCVR”
- “RTRV-PORT”
- “RTRV-PWRMD”
- “RTRV-ROUTE-ALL”
- “RTRV-ROUTE-CONN”
- “RTRV-ROUTE-OSPF”
- “RTRV-ROUTE-STATIC”
- “RTRV-SER”
- “RTRV-SNMP-COMMUNITY”
- “RTRV-SNMP-TRAPRCV”
- “RTRV-STM1”
- “RTRV-STM4”
- “RTRV-STM16”
- “RTRV-STM64”
- “RTRV-SYS”
- “RTRV-SYS-RELNUM”
- “RTRV-TH-FC”

- “RTRV-TH-GE”
- “RTRV-TH-OCn”
- “RTRV-TH-OSC”
- “RTRV-TH-STMn”
- “RTRV-TH-STSn/STSnC”
- “RTRV-TH-VCn/VCnC”
- “RTRV-TH-XCVR”
- “RTRV-TMG-MODE”
- “RTRV-TMREF”
- “RTRV-USER”
- “RTRV-USER-SECU”
- “RTRV-VCG”
- “RTRV-VERSION”
- “RTRV-WCH”
- “RTRV-WDM”
- “RTRV-XCVR”

RTRV-ACT-USER

The RTRV-ACT-USER command retrieves a list of local and remote users that are logged in, their associated privilege level, and the source IP address of the session.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

RTRV-ACT-USER:[TID]::[CTAG]::;

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<uid>:<uap>:<ipaddr>:<port> cr lf
;
```

Example command and response

```
RTRV-ACT-USER:BTI7000::100;

      BTI7000 03-09-29 10:29:39
M 100 COMPLD
  admin:SUPERUSER:192.168.172.163:2024
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters. | Not applicable |
| uap | The user access privilege parameter | See 2.45, “User access privilege (uap)” . | Not applicable |
| ipaddr | The IPAddress from which the user ID has logged in | Four integers between 0 and 255 separated by periods | Not applicable |
| port | The port number that the user ID has logged in to | 2024 for local logins via IP mediation port | Not applicable |

RTRV-ALM-ALL

The RTRV-ALM-ALL command retrieves all active office and environmental alarms.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-ALL:[TID]:[<aid>]:[CTAG][:[:[<ntfcncde>],[<condtype>], [<srveff>],
[<locn>],[<dirn>],[<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>], [<locn>],[<dirn>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>], [<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-ALL:BTI7000::100::,,,,,;
```

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
" SLOT-1-3,EQPT:CR,REPLUNITMISS,SA,03-09,12-53-52,,,NA:\"Equipment missing.
\",,,,,,
>
BTI7000 04-03-09 15:58:26
M 100 COMPLD
"IP-1-6-2,IP:MJ,OSCLOS,NSA,03-09,13-55-22,,,:\\"OSC Loss Of Signal.\",,,,,,
"IP-1-4-1,IP:MJ,OSCLOS,NSA,03-09,13-56-08,,,:\\"OSC Loss Of Signal.\",,,,,,
"IP-1-4-2,IP:MJ,OSCLOS,NSA,03-09,13-56-08,,,:\\"OSC Loss Of Signal.\",,,,,,
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No alarms present */
;
```

Note Alarms against a BTI 7060 main shelf or expansion shelf are retrieved using the Shelf AID, SH. This does not apply to alarms retrieved against the BTI 7030.

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type | See 2.1, “AID type (aidtype)”. | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”, or 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date (month-day) | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | NULL | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblisl | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-BRI

The RTRV-ALM-BRI command generates a report on the current state of alarm conditions on a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-BRI:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<srveff>],
[<locn>],[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]"
cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-BRI:BTI7000:MXP-1-1-C1:100::,,,,,;
```

```
BTI7000 07-10-15 04:09:12
```

```
M 100 COMPLD
```

```
"MXP-1-1-C1,BRI:MJ,LOM,NSA,10-15,04-07-35,NEND,,,\"Loss of Multi-frame.
\",,,,\"
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:47:26
M 100 COMPLD
/* No alarms present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| aidtype | The entity type that is targeted by the message | BRI | BRI |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-ENV

The RTRV-ALM-ENV command retrieves all active environmental alarms.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-ENV:[TID]:[<aid>]:[CTAG][:[:[:<ntfcncde>], [<almtype>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:<ntfcncde>,<almtype>,<ocrdat>,<ocrtm>,<almmsg>"
```

Example command and response

```
RTRV-ALM-ENV:BTI7000::100;
BTI7000 10-01-05 15:00:04
M 100 COMPLD
"HKI-1:MN,AIRCOMPR,02-08,17-41-21,\"Air Compressor Failure\""
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier | HKI-1 to HKI-6 | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| almtype | The environmental alarm type code | See 2.7, "Environmental condition type (condtype)". | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| almmsg | The alarm message | String of 0 to 40 characters | Not applicable |

RTRV-ALM-EQPT

The RTRV-ALM-EQPT command retrieves all active equipment alarms. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-EQPT:[TID]:[<aid>]:[CTAG][:[<ntfcncde>],[<condtype>],[<srveff>],  
[<locn>],[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,  
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>]:[<conddescr>],[<aiddet>],  
[<obsdbhvr>],[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf  
or  
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-ALM-EQPT:BTI7000::100::,,,,,;
```

```
BTI7000 02-11-05 15:00:01  
M 100 COMPLD  
"SLOT-1-4,EQPT:MJ,REPLUNITMISS,NSA,11-05,15-00-01,NEND,,:"Equipment  
missing.\" , , , , ,"  
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type | EQPT SFP | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”, or 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date (month-day) | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \” conddescr \” | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \” obsdbhvr \” | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \” exptdbhvr \” | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblslt | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-FC

The RTRV-ALM-FC command generates a report on the current state of alarm conditions on a Fibre Channel (FC) client side port on an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-FC:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<srveff>],  
[<locn>],[<dirn>],[<tmper>;
```

where

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^  
^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],  
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],  
[<exptdbhvr>]:[<dgntype>],[<tblislt>]"  
cr lf
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-ALM-FC:BTI7000:MXP-1-1-C1:100::,,,,;
```

```
BTI7000 07-10-15 04:09:12
```

```
M 100 COMPLD
```

```
"MXP-1-1-C1,FC:MJ,LOM,NSA,10-15,04-07-35,NEND,,:\\"Loss of Multi-frame.  
\\",,,:",  
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:47:26
M 100 COMPLD
/* No alarms present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3, 5)-(C1-C10) | Not applicable |
| aidtype | The entity type that is targeted by the message | FC | FC |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-GCC

The RTRV-ALM-GCC command retrieves all active GCC alarm conditions. To distinguish between GCC faults and payload traffic faults, the alarm for GCC0 has a GCC qualifier associated with it.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-GCC:[TID]:<aid>:[CTAG]:;
```

Message syntax

```
cr lf lf
^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>], [<locn>],[<dirn>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>], [<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
or
^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-GCC:BTI7000::100::;
```

```
BTI7000 10-10-14 16:02:50
M 100 COMPLD
"TPR-1-3-1,GCC:CR,LINKDOWN,SA,10-13,17-07-11,NEND,,:\ " General Communication
Channel Failure.\",,,:,"
;
```


If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| aidtype | The entity type that is targeted by the message | GCC | GCC |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NULL | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-GE

The RTRV-ALM-GE command generates a report on the current state of alarm conditions on a gigabit Ethernet (GE) client side port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-GE:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<srveff>],  
[<locn>],[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^  
^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],  
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],  
[<exptdbhvr>]:[<dgntype>],[<tblislt>]"  
cr lf
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-ALM-GE:BTI7000:MXP-1-6-C1:100::,,,,,;
```

```
BTI7000 07-10-15 04:09:12  
M 100 COMPLD  
"MXP-1-6-C2,GE:MJ,LOM,NSA,10-15,04-07-35,NEND,,:"Loss of Multi-frame.  
\\",,,,"  
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:47:26  
M 100 COMPLD  
/* No alarms present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MPX-(1,11,21,31)- (1-20)-(C1-C10) | Not applicable |
| aidtype | The entity type that is targeted by the message | GE | GE |
| ntfncode | The notification code | See 2.28, "Notification code (ntfncode)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-IP

The RTRV-ALM-IP command retrieves all active IP interface alarm conditions. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-IP:[TID]:<aid>:[CTAG][[:<ntfcncde>,<condtype>,<srveff>,<locn>,<dirn>,<tmper>]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,<locn>,<dirn>,<tmper>]:<conddescr>,<aiddet>,<obsdbhvr>,<exptdbhvr>]:<dgntype>,<tblislt>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-IP:NE-117::100::,,,,;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD
"IP-1-6-1,IP:MJ, OSCLOS,NSA,02-02,12-00-57,NEND,,:\ " OSC Loss Of Signal.
\ "
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |
| aidtype | The entity type that is targeted by the message | IP | IP |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NULL | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-OA

The RTRV-ALM-OA command retrieves and sends the current status of all active optical amplifier alarm conditions. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-OA:[TID]:[<aid>]:[CTAG][[:[:<ntfcncde>],[<condtype>],[<srveff>],  
[<locn>],[<dirn>],[<tmper>]]];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,  
[<ocrdat>],[<ocrtim>], [<locn>],[<dirn>],[<tmper>]:[<conddescr>],[<aiddet>],  
[<obsdbhvr>], [<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf;
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-ALM-OA:BTI7000::100::,,,,;
```

```
BTI7000 02-11-05 15:00:00  
M 100 COMPLD  
"OPA-1-2-1,OA:MJ,T-OPR-LT,NSA,11-05,15-00-01,NEND,,:"Optical power  
received minimum threshold exceeded.\",,,,,"  
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26  
M 100 COMPLD  
/* No alarms present */  
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| aidtype | The entity type that is targeted by the message | OA | OA |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | NULL | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-OCn

The RTRV-ALM-OCn commands generate a report on the current state of alarm conditions on a SONET port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-----------------|--|
| RTRV-ALM-OC3: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<srveff>],[[<locn>],[<dirn>], [<tmper>]; |
| RTRV-ALM-OC12: | |
| RTRV-ALM-OC48: | |
| RTRV-ALM-OC192: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-OC3:BTI7000:MXP-1-1-C1:100::,,,,,;
```

```
BTI7000 07-08-15 20:44:39
```

```
M 100 COMPLD
```

```
"MXP-1-1-L2,OC3:CR,LOS,SA,08-15,20-43-54,NEND,,:\\"OC3 Loss Of Signal.
\\",,,,:,"
"MXP-1-1-L2,OC3:CR,REPLUNITMEA,SA,08-15,20-44-16,NEND,,:
\\"SFP mismatch.\\",,,,:,"
;
```


If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:24:06
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | OC3/12 | Not applicable |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | OC48 | |
| | | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| aidtype | The entity type that is targeted by the message | OC3 | Not applicable |
| | | OC12 | |
| | | OC48 | |
| | | OC192 | |
| ntfncode | The notification code | See 2.28, "Notification code (ntfncode)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |
| aiddet | The AID details | String | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblslt | The trouble isolated | String | Not applicable |

RTRV-ALM-ODU1

The RTRV-ALM-ODU1 command generates a report on the current state of alarm conditions on an ODU1 line side port of a 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-ODU1:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<srveff>],
[<locn>],[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-ODU1:BTI7000:MXP-21-1-L1-1:100::,,,,,;
```

```
BTI7000 07-08-15 20:44:39
```

```
M 100 COMPLD
```

```
"MXP-21-1-L1-1,ODU1:CR,OCI,SA,03-27,18-51-34,NEND,,:\\"Open connection
indicator.\",,,:,"
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:24:06
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MPX-(1,11,21,31)- (1,3,5...19)-(L1,L2)- (1-4) | Not applicable |
| aidtype | The entity type that is targeted by the message | ODU1 | ODU1 |
| ntfncode | The notification code | See 2.28, "Notification code (ntfncode)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-OSC

The RTRV-ALM-OSC command retrieves active alarms against OSC facilities on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-OSC:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],
[<condtype>],[<srveff>],[<locn>],[<dirn>],[<tmper>;
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>]:
[<conddesc>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:
[<dgntype>],[<tblislt>]"
```

Example command and response

```
RTRV-ALM-OSC::BTI7000:rob-1-3-11:100::,,,,,;
```

If no alarms exist, the system response is as follows:

```
BTI7000 11-10-19 13:01:15
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the OSC facility | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type that is targeted by the message | OSC | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| | | RCV (receive) TRMT (transmit) | |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-PORT

The RTRV-ALM-PORT command retrieves active alarms on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-PORT:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>],[<srveff>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>]:
[<conddesc>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:
[<dgntype>],[<tblislt>]"
```

Example command and response

```
RTRV-ALM-PORT::BTI7000:rob-1-3-L1:100::,,,,,;
```

If no alarms exist, the system response is as follows:

```
BTI7000 11-10-19 13:01:15
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | PORT | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblslt | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-SECU

The RTRV-ALM-SECU command retrieves and sends the current status of all active security alarm conditions. The alarm condition or severity to be retrieved is specified using the input parameters as a filter.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-SECU:[TID]:[<aid>]:[CTAG][[:[:<ntfcncde>],[<condtype>], [<srveff>],
[<locn>],[<dirn>],[<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>], [<locn>], [<dirn>],[<tmper>]:[<conddescr>],[<aiddet>],
[<obsdbhvr>], [<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-SECU:BTI7000::100::,,,,;
```

```
BTI7000 02-05-08 16:22:04
M 100 COMPLD
"USER,SECU:MN,USRLCKOUT,NSA,05-08,15-31-34,NEND,,:"\User locked out.\",,
\"admin\"\",,,\"
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------|----------------|
| aid | The access identifier of the port | USER | Not applicable |
| aidtype | The entity type that is targeted by the message | SECU | SECU |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aidet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblislt | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-STMn

The RTRV-ALM-STMn commands generate a report on the current state of alarm conditions on an SDH port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-----------------|--|
| RTRV-ALM-STM1: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<srveff>],[[<locn>],[<dirn>], [<tmper>]; |
| RTRV-ALM-STM4: | |
| RTRV-ALM-STM16: | |
| RTRV-ALM-STM64: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-STM1:BTI7000:MXP-1-1-C1:100::,,,,,;
```

```
BTI7000 07-09-21 10:24:28
```

```
M 100 COMPLD
```

```
"MXP-1-1-L1,STM1:MJ,SYNCPRI,NSA,09-19,21-10-29,NEND,,:\\"Loss of Timing
Reference Pay load indicating PRI source.\",,
,,:,
```

```
"MXP-1-1-L1,STM1:CR,LOS,SA,09-19,21-10-30,NEND,,:\\"STM1 Loss Of Signal.
\\",,,,:,
```

```
"MXP-1-1-L2,STM1:MJ,SYNCSEC,NSA,09-19,21-10-32,NEND,,:\\"Loss of Timing
Reference Pay load indicating SEC source.\",,
,,:,
```

```
"MXP-1-1-L2,STM1:CR,LOS,SA,09-19,21-10-34,NEND,,:\\"STM1 Loss Of Signal.
\\",,,,:,
```

```
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:24:06
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | STM1/4 | Not applicable |
| | | STM16 | |
| | | STM64 | |
| aidtype | The entity type that is targeted by the message | STM1 | Not applicable |
| | | STM4 | |
| | | STM16 | |
| | | STM64 | |
| ntfncode | The notification code | See 2.28, “Notification code (ntfncode)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblslt | The trouble isolated | String | Not applicable |

RTRV-ALM-STS_n/STS_nC

The RTRV-ALM-STS_n/STS_nC commands generate a report on the current state of alarm conditions on an STS path facility object of a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|------------------|--|
| RTRV-ALM-STS1: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<srveff>],[[<locn>],[<dirn>], [<tmper>]; |
| RTRV-ALM-STS3C: | |
| RTRV-ALM-STS6C: | |
| RTRV-ALM-STS9C: | |
| RTRV-ALM-STS12C: | |
| RTRV-ALM-STS15C: | |
| RTRV-ALM-STS18C: | |
| RTRV-ALM-STS21C: | |
| RTRV-ALM-STS24C: | |
| RTRV-ALM-STS30C: | |
| RTRV-ALM-STS36C: | |
| RTRV-ALM-STS48C: | |
| RTRV-ALM-STS72C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-STS1:BTI7000:MXP-1-3-L1-1:100::,,,,;
```

```
BTI7000 07-08-15 20:52:04
```

```

M 100 COMPLD
    "MXP-1-3-L1-1,STS1:MJ,LOP-P,NSA,08-15,20-51-37,NEND,,:\\"STS Rx Loss of
Pointer.\",,,:",
;

```

If no alarms exist, the system response is as follows:

```

BTI7000 07-07-29 10:24:06
M 100 COMPLD
    /* No alarms present */
;

```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | STS1 | Not applicable |
| | | STS3C | |
| | | STS6C | |
| | | STS9C | |
| | | STS12C | |
| | | STS15C | |
| | | STS18C | |
| | | STS21C | |
| | | STS24C | |
| | | STS30C | |
| | | STS36C | |
| | | STS48C | |
| | | STS72C | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblslt | The trouble isolated | String | Not applicable |

RTRV-ALM-SUBODU1

The RTRV-ALM-SUBODU1 command generates a report on the current state of alarm conditions on an SUBODU1 line side port of an 8-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-SUBODU1:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<srveff>],
[<locn>],[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-SUBODU1:BTI7000:MXP-21-1-L1-1:100::,,,,,;
```

```
BTI7000 07-08-15 20:44:39
```

```
M 100 COMPLD
```

```
"MXP-21-1-L1-1,SUBODU1:CR,OCI,SA,03-27,18-51-34,NEND,,:"Open connection
indicator.\",,,:,"
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-07-29 10:24:06
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MLP-(1,11,21,31)- (1,3,5...19)-(L1,L2)- (1-4) | Not applicable |
| aidtype | The entity type that is targeted by the message | SUBODU1 | SUBODU1 |
| ntfncde | The notification code | See 2.28, "Notification code (ntfncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-VCn/VCnC

The RTRV-ALM-VCn/VCnC commands generate a report on the current state of alarm conditions on an VC4 path facility object of an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-----------------|---|
| RTRV-ALM-VC4: | [TID]:[<aid>]:[CTAG]:[<ntfcncde>], [<condtype>],[<srveff>],[<locn>],[<dirn>], [<tmper>; |
| RTRV-ALM-VC2C: | |
| RTRV-ALM-VC3C: | |
| RTRV-ALM-VC4C: | |
| RTRV-ALM-VC5C: | |
| RTRV-ALM-VC6C: | |
| RTRV-ALM-VC7C: | |
| RTRV-ALM-VC8C: | |
| RTRV-ALM-VC10C: | |
| RTRV-ALM-VC12C: | |
| RTRV-ALM-VC16C: | |
| RTRV-ALM-VC24C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,[<ocrdat>],[<ocrtim>],
[<locn>],[<dirn>],[<tmper>]:[<conddesc>],[<aiddet>],[<obsdbhvr>],
[<exptdbhvr>]:[<dgntype>],[<tblislt>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-VC4:BTI7000:MXP-1-6-L1-1:100::,,,,,;
```

```
BTI7000 07-10-15 03:51:12
M 100 COMPLD
    "MXP-1-6-L1-1,VC4:NA,AIS-P,NSA,10-15,03-42-37,NEND,,:\\"VC Rx Alarm
Indication Signal.\",,,,:",
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 07-10-15 03:51:12
M 100 COMPLD
    /* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | VC4 | Not applicable |
| | | VC2C | |
| | | VC3C | |
| | | VC4C | |
| | | VC5C | |
| | | VC6C | |
| | | VC7C | |
| | | VC8C | |
| | | VC10C | |
| | | VC12C | |
| | | VC16C | |
| | | VC24C | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | String Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | String | Not applicable |
| tblist | The trouble isolated | String | Not applicable |

RTRV-ALM-WCH

The RTRV-ALM-WCH command retrieves active alarms against wavelength channel facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-WCH:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>],[<srveff>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>]:
[<conddesc>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:
[<dgntype>],[<tblislt>]"
```

Example command and response

```
RTRV-ALM-WDM::BTI7000::100::,,,,,;
```

If no alarms exist, the system response is as follows:

```
BTI7000 11-10-19 13:01:15
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the wavelength-channel object | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| aidtype | The entity type that is targeted by the message | WCH | |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.6, “ Condition type (condtype) (for DOL) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-WDM

The RTRV-ALM-WDM command retrieves active alarms against WDM entities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ALM-WDM:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>],[<srveff>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>]:
[<conddesc>],[<aiddet>],[<obsdbhvr>],[<exptdbhvr>]:
[<dgntype>],[<tblislt>]"
```

Example command and response

```
RTRV-ALM-WDM::BTI7000:rob-1-3-11-380:100::,,,,,;
```

If no alarms exist, the system response is as follows:

```
BTI7000 11-10-19 13:01:15
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the WDM object | See 2.2, “ AID type (aidtype) (for DOL)”. WDM | Not applicable |
| aidtype | The entity type that is targeted by the message | | |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.6, “ Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblist | The trouble isolated | Not available in this release | Not applicable |

RTRV-ALM-XCVR

The RTRV-ALM-XCVR command generates a report on the current state of alarm conditions of a transceiver port.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

RTRV-ALM-XCVR:

```
[TID]:<ConditionId>:CTAG::<ntfcncde>,<condtype>,<srveff>,<locn>,<dirn>,<tmper>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,<locn>,<dirn>,<tmper>]:<conddescr>,<aiddet>,<obsdbhvr>,<exptdbhvr>]:<dgntype>,<tblislt>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-ALM-XCVR:BTI7000:100::;
```

```
BTI7000 05-02-03 07:51:32
M 100 COMPLD
"WR-1-2-1,XCVR:MJ,REPLUNITMISS,SA,02-03,07-51-15,NEND,,:"SFP missing.
\","",,,,""
;
```

If no alarms exist, the system response is as follows:

```
BTI7000 05-02-03 07:51:32
M 100 COMPLD
/* No alarms present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| | | WT-(1,11,21,31)-(1-20)-(1-4) | |
| aidtype | The entity type that is targeted by the message | XCVR | XCVR |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. (condtype) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance monitoring time period | NULL | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |
| aiddet | The AID details | Not available in this release | Not applicable |
| obsdbhvr | The observed behavior | String Note Appears as \" obsdbhvr \" | Not applicable |
| exptdbhvr | The expected behavior | String Note Appears as \" exptdbhvr \" | Not applicable |
| dgntype | The diagnostic type | Not available in this release | Not applicable |
| tblislt | The trouble isolated | Not available in this release | Not applicable |

RTRV-ARP

The RTRV-ARP command displays the SCP ARP (Address Resolution Protocol) table entries for the learned IP-to-MAC mapping. Up to 512 entries are displayed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ARP:[TID]::[CTAG]::;
```

Message syntax

Example command and response

```
BTI7000>
rtrv-arp

      BTI7000 13-04-01 14:02:33
M  100 COMPLD
"10.0.0.1::MACADDR=0014d0301cd3,TYPE=PUBLISHED"
"10.0.0.2::MACADDR=112233443322,TYPE=PERMANENT"

      "10.1.220.10::MACADDR=,TYPE=INCOMPLETE"
      "192.168.17.1::MACADDR=0014d0301cd4,TYPE=PUBLISHED"
"192.168.17.204::MACADDR=0800273e618f,TYPE=DYNAMIC"
;
BTI7000>
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| <aid> | The Layer 3 IP address associated with the MAC address. | A valid IPv4 IP address. | Not applicable |
| <macaddr> | The Layer 2 MAC address associated with the host IP address. | A valid 48-bit MAC address. | Not applicable |
| <type> | The type of ARP entry associated with the IP-to-MAC mapping. | Published: The system responds to ARP query requests for this IP address and its associated MAC address. Permanent: An ARP entry that is added manually, and does not age out. Dynamic: A temporary ARP entry that is kept on the device for a certain period of time. Incomplete: MAC address unknown for the IP address. | Not applicable |

Guideline

Following is additional information about the ARP types:

| ARP Type | Description |
|------------|---|
| Published | Examples of Published ARP types are a local IP interface and proxy (non-local) interface. A Published ARP type cannot be deleted. |
| Permanent | A Permanent ARP type can only be deleted manually. |
| Dynamic | The Dynamic ARP type is learned from the network. After three scan periods, the entry is deleted automatically. |
| Incomplete | An attempt is made to communicate with the IP address, but a response is not returned. Incomplete entries age out after three scan periods. |

RTRV-ATTR-ALL

The RTRV-ATTR-ALL command retrieves the current attributes for all reported alarms for all condition types. If a condition type is specified, this command retrieves only the condition type specified. The command displays the condition type, followed the current and default severities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ATTR-ALL:[TID]::[CTAG]::[<condtype>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD <condtype>,<ntfcncde>,<defntfcncde>cr lf
^^^
;
```

Example command and response

```
RTRV-ATTR-ALL:BTI7000::100::LOS-XCVR;
```

```
BTI7000 10-05-26 11:42:45
M 100 COMPLD
LOS-XCVR,CR,CR
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|-------------------------------|--|----------------|
| condtype | The condition type code | See 2.5, “Condition type (condtype)” or 2.6, “Condition type (condtype) (for DOL)” | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| defntfcncde | The default notification code | | |

RTRV-ATTR-ENV

The RTRV-ATTR-ENV command retrieves the attributes for environmental alarm inputs.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ATTR-ENV:[TID]:[<aid>]:[CTAG] ;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr if
^^^" <aid>:<ntfcncde>,<almtype>,<almmsg>,<inputtype>"
```

Example command and response

```
RTRV-ATTR-ENV:BTI7000::100;
BTI7000 10-01-05 15:00:04
M 100 COMPLD
"HKI-1:MN,AIRCOMPR,\"Air Compressor Failure\",NO
"HKI-2:CR,TOXIGAS,\"Toxic Gas\",NO
"HKI-3:MN,PUMP,\"Pump Failure\",NO
"HKI-4:MJ,BATTERY,\"Battery Failure\",NC
"HKI-5:MN,UNASSIGNED,,DISABLE
"HKI-6:MN,UNASSIGNED,,DISABLE
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|---------|
| aid | The access identifier for the input | HKI-1 to HKI-6 | All |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)" | MN |
| almtype | The environmental alarm type | See 2.7, "Environmental condition type (condtype)" | |
| almmsg | The alarm message | String of 0 to 40 characters | |
| inputtype | The input type identifies the normal state for an input on an MSI module and the conditions that trigger an alarm. | See 2.16, "Input type (InputType)" | Disable |

RTRV-ATTR-EVT

The RTRV-ATTR-EVT command retrieves the current attributes for all reported events. These attributes include the on/off status of event reporting.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ATTR-EVT:[TID]::[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD <action> cr lf
^^^
;
```

Example command and response

```
RTRV-ATTR-EVT:BTI7000::100::;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD
```

```
"ALL-EVENTS-ENABLED"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------|---|----------------|
| action | The action state | ALL-EVENTS-DISABLED ALL-EVENTS-ENABLED | Not applicable |

RTRV-ATTR-LOG

The RTRV-ATTR-LOG command instructs a network element to retrieve the current attributes for one or all of the log categories. These attributes include the on/off status of the log category and the number of permissible logs (that is, 1000).

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ATTR-LOG:[TID]:[<lognm>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<lognm>,<mode>,<maxmsg> cr lf;
```

Example command and response

```
RTRV-ATTR-LOG:BTI7000::100::;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD
"ALM, ON, 1000"
"CMD, ON, 1000"
"EVT, ON, 1000"
"DBCHG, ON, 1000";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------|----------------------------|----------------|
| lognm | The log name type | ALM CMD DBCHG EVT | Not applicable |
| mode | The mode | ON OFF | Not applicable |
| maxmsg | The maximum number of messages | 1000 | 1000 |

RTRV-ATTR-SECULOG

The RTRV-ATTR-SECULOG command displays a warning message in a REPT^EVT^USER message that the user sees when logging in to the network element using TL1 by performing a successful ACT-USER command. The warning parameter is a message of up to 512 characters in length.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ATTR-SECULOG:[TID]:[<aid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<lognm>,<mode>,<maxmsg> cr lf
^^^/* <warning_message> */ cr lf
;
```

Example command and response

```
RTRV-ATTR-SECULOG:BTI7000::100::;
```

```
BTI7000 02-11-05 15:00:03
M 100 COMPLD
"SECU, ON, 1000"
/* "NOTICE: This is a private computer system. Unauthorized access or use
may lead to prosecution."
*/
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|---------------------|--|
| lognm | The log category name | SECU | SECU |
| mode | The mode | ON OFF | Not applicable |
| maxmsg | The maximum number of messages | 1000 | 1000 |
| warning_message | The warning message that appears when a user logs in | 1 to 512 characters | "NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution." |

RTRV-AUTH-PRIORITY

The RTRV-AUTH-PRIORITY command retrieves the authentication server priority.



Syntax

```
RTRV-AUTH-PRIORITY:[TID]::[CTAG]::;
```

Example command

```
RTRV-AUTH-PRIORITY:BTI7000::120;
```

RTRV-AUTH-SERV

The RTRV-AUTH-SERV command retrieves configuration information of current authentication servers.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
RTRV-AUTH-SERV:[TID]:<aid>:[CTAG]::[ROLE=<role>],[PORT=<port>],
[TIMEOUT=<timeout>],[RETRY=<retry>]
```

Example command

```
RTRV-AUTH-
SERV:BTI7000:10.64.6.28::ROLE=secondary,PORT=3000,TIMEOUT=10,RETRY=3;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | IP address of the authentication server. | A valid IPv4 IP address. | Not applicable |
| role | The role of the authentication server. | Disabled Primary: The first server contacted to check authentication. Secondary: The second server contacted if the primary cannot be reached. Tertiary: The third server contacted if the primary and secondary cannot be reached. | Disabled |
| port | IP port of the server. | Integer between 1 and 65535. | 1812 |
| timeout | The amount of time, in seconds, the client server waits for a response from the authentication server, before sending another request . | 1 to 10 seconds. | 5 seconds |
| retry | The number of attempts to contact a server. | 1 to 5 | 1 |

RTRV-BRI

The RTRV-BRI command retrieves provisioning and state information for a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-BRI:[TID]:[<aid>]:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],[LASERSTATUS=<laserstatus>],[OPRHT=<oprht>],
[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],[FIBERTYPE=<fibertype>],
[SPEED=<speed>],[DUPLEX=<duplex>],[MTU=<mtu>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[MACADDRESS=<macaddress>],[BRIPROTOCOL=<briprotocol>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>" cr lf;
```

Example command and response

```
RTRV-BRI:BTI7000::100::;
```

```
BTI7000 14-01-22 11:15:49
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C3:PHYPMON=OFF,LASERSTATUS=ON,OPRHT=6.9,OPRLT=-50.0,OPTHT=6.9,OPTLT=-50.0,WA
VELENGTH=1310,BRIPROTOCOL=CCTV,BRIRATE=1485,AINSTMR=08-00,LASERCTRL=AUTO:OOS-
AU,FLT"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| phypmmon | The threshold crossing alarm monitoring flag | ON OFF | OFF |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. | Not applicable |
| speed | The speed of the port | 0 1000 | Not applicable |
| duplex | The transmission mode of the port | FULL | FULL |
| mtu | The maximum transmission unit (that is, packet size) of the port | Integer | 9600 |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|------------------------------|
| briprotocol | The protocol | 100FX SD-SDI HD-SDI HD-SDI-1001 DVB-ASI Note 100FX and DVB-ASI supported for First Office Application only. | Not applicable |
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

RTRV-COND-ALL

The RTRV-COND-ALL command retrieves all conditions and environmental alarms for all entities regardless of state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-ALL:[TID]:<aid>:CTAG::<ntfcncde>,<condtype>,<locn>,<dirn>,<tmper>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddescr>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-ALL:BTI7000::100::,, ,;
```

```
BTI7000 02-11-05 15:00:03
M 100 COMPLD
" SLOT-1-4,EQPT:MJ,REPLUNITMISS,NSA,11-05,15-00-01,NEND,,NA,\"Equipment
missing.\" "
>
BTI7000 02-11-05 15:00:03
M 100 COMPLD
" OPA-1-2-1,OA:MJ,T-OPR-LT,NSA,11-05,15-00-01,NEND,,NA,\"Optical power
received minimum threshold exceeded.\" "
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The entity in the network element to which the command pertains | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | See 2.1, “AID type (aidtype)”. | Not applicable |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition or environmental condition type code | See 2.5, “Condition type (condtype)”, or 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | Not available in this release | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| timper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-BRI

The RTRV-COND-BRI command generates a report on the current conditions on a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module. Conditions can be alarmed or non-alarmed.



Input syntax

```
RTRV-COND-BRI:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-BRI:BTI7000:MXP-1-1-C2:100::,,,,;
```

```
BTI7000 07-08-15 21:03:59
```

```
M 100 COMPLD
```

```
"MXP-1-1-C2,BRI:CR,REPLUNITMEA,SA,08-15,21-01-17,NEND,,,\"SFP mismatch.\""
```

```
"MXP-1-1-C2,BRI:CR,LOS,SA,08-15,21-01-17,NEND,,,\"Loss Of Signal.\""
```

```
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-07-29 10:46:37
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| aidtype | The entity type that is targeted by the message | BRI | |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |

RTRV-COND-ENV

The RTRV-COND-ENV command retrieves all active environmental alarms and conditions including those that are not alarmed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-ENV:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<almttype>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:<ntfcncde>,<almttype>,<ocrdat>,<ocrtm>,<almmsg>"
```

Example command and response

```
RTRV-COND-ENV:BTI7000::100;
BTI7000 10-01-05 15:00:04
M 100 COMPLD
"HKI-1:MN,AIRCOMPR,02-08,17-41-21,\"Air Compressor Failure\""
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier | HKI-1 to HKI-6 | Not applicable |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| almttype | The environmental alarm type code | See 2.7, "Environmental condition type (condtype)". | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| almmsg | The alarm message | String of 0 to 40 characters | Not applicable |

RTRV-COND-EQPT

The RTRV-COND-EQPT command retrieves all conditions for equipment regardless of state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-EQPT:[TID]:<aid>:CTAG::<ntfcncde>,<condtype>,<locn>,<dirn>,<tmper>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddescr>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-EQPT:BTI7000::100::,, ,;
```

```
BTI7000 02-11-05 15:00:03
M 100 COMPLD
" SLOT-1-4,EQPT:REPLUNITMISS,NSA,11-05,15-00-01,NEND,,NA,\"Equipment
missing.\" "
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The entity in the network element to which the command pertains | See 2.11, “Equipment AID (aid)”, or 2.2, “AID type (aidtype) (for DOL)” | Not applicable |
| aidtype | The entity type that is targeted by the message | EQPT | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code. | See 2.5, "Condition type (condtype)", or REPLUNITDEGRADE for DOL modules. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locln | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-FC

The RTRV-COND-FC command generates a report on the current conditions on a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module. Conditions can be alarmed or non-alarmed.



Input syntax

```
RTRV-COND-FC:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<locn>],  
[<dirn>],[<tmper>;
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],  
[<ocrdat>],  
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-COND-FC:BTI7000:MXP-1-1-C1:100::,,,,;
```

```
BTI7000 07-08-15 21:03:59
```

```
M 100 COMPLD
```

```
"MXP-1-1-C1,FC:CR,REPLUNITMEA,SA,08-15,21-01-47,NEND,,,\"SFP mismatch.\""
```

```
"MXP-1-4-C2,FC:CR,LOS,SA,08-15,21-01-47,NEND,,,\"Loss Of Signal.\""
```

```
;
```


If no conditions exist, the system response is as follows:

```
BTI7000 07-07-29 10:46:37
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(C1-C10) | Not applicable |
| aidtype | The entity type that is targeted by the message | FC | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-GE

The RTRV-COND-GE command generates a report on the current conditions on a gigabit Ethernet (GE) client side port of a Muxponder module. Conditions can be alarmed or non-alarmed.



Input syntax

```
RTRV-COND-GE:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<locn>],  
[<dirn>],[<tmper>;
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],  
[<ocrdat>],  
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-COND-GE:BTI7000:MXP-1-4-C2:100::,,,,;
```

```
BTI7000 07-08-15 21:03:59
```

```
M 100 COMPLD
```

```
"MXP-1-4-C2,GE:CR,REPLUNITMEA,SA,08-15,21-01-47,NEND,,,\"SFP mismatch.\""
```

```
"MXP-1-4-C2,GE:CR,LOS,SA,08-15,21-01-47,NEND,,,\"Loss Of Signal.\""
```

```
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-07-29 10:46:37
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1-20)-(C1-C2) | Not applicable |
| aidtype | The entity type that is targeted by the message | GE | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-IP

The RTRV-COND-IP command retrieves all conditions for IP interfaces regardless of state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-IP:[TID]:[<aid>]:[CTAG][:[:[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],[<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddescr>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-IP:BTI7000::100::,, ,;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD "IP-1-6-1,IP:MJ, OSCLOS,NSA,02-02,12-00-57,NEND,,NA,\" OSC Loss
Of Signal.\"";
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The entity in the network element to which the command pertains | IP-1-1-(1,2) IP-1-5-(1,2) | Not applicable |
| aidtype | The entity type that is targeted by the message | IP | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| condtype | The condition type code | See 2.5, " Condition type (condtype) ". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-OA

The RTRV-COND-OA command retrieves all conditions for optical amplifiers regardless of state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-ALL:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],
[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddescr>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-OA:BTI7000::100::,,;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD
"OPA-1-2-1,OA:T-OPR-LT,NSA,11-05,15-00-01,NEND,,,\"Optical power received
minimum threshold exceeded.\"";
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| | | OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | |
| aidtype | The entity type that is targeted by the message | OA | |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-OCn

The RTRV-COND-OCn commands generate a report on the current conditions on a SONET port of an Muxponder module. Conditions can be alarmed or non-alarmed.



Input syntax

| | |
|------------------|--|
| RTRV-COND-OC3: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<locn>], [<dirn>],[<tmper>; |
| RTRV-COND-OC12: | |
| RTRV-COND-OC48: | |
| RTRV-COND-OC192: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-OC3:BTI7000:MXP-1-1-C2:100::,,,,;

BTI7000 07-08-15 19:57:31
M 100 COMPLD
    "MXP-1-1-C2,OC3:NR,LOS,SA,08-15,19-53-09,NEND,,,\"OC3 Loss Of Signal.\""
;
```


If no conditions exist, the system response is as follows:

```
BTI7000 07-08-15 19:50:17
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | OC3/12 | Not applicable |
| | | OC48 | |
| | | OC192 | |
| aidtype | The entity type that is targeted by the message | OC3 | Not applicable |
| | | OC12 | |
| | | OC48 | |
| | | OC192 | |
| ntfncode | The notification code | See 2.28, “Notification code (ntfncode)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-ODU1

The RTRV-COND-ODU1 command generates a report on the current conditions on an ODU1 line side port of a 10-Port Multiprotocol Muxponder module. Conditions can be alarmed or non-alarmed.



Input Syntax

```
RTRV-COND-ODU1:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<condtype>],[<locn>],  
[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],  
[<ocrdat>],  
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf  
;
```

Example command and response

```
RTRV-COND-ODU1:BTI7000:MXP-21-1-L1-1:100::,,,,;
```

```
BTI7000 07-08-15 19:57:31  
M 100 COMPLD  
"MXP-21-1-L1-1,ODU1:CR,OCI,SA,03-27,18-51-34,NEND,,,\"Open connection  
indicator.\""  
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-08-15 19:50:17  
M 100 COMPLD  
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)- (L1,L2)- (1-4) | Not applicable |
| aidtype | The entity type that is targeted by the message | ODU1 | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-OSC

The RTRV-COND-OSC command retrieves active conditions against OSC facilities on DOL OSC facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-OSC:[TID]:[<aid>]:[CTAG]::
[<ntfncncl>],[<condtype>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfncncl>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],
[<conddesc>]"
```

Example command and response

```
RTRV-COND-OSC:BTI7000::100::,,,,;
```

If no conditions exist, the system response is as follows:

```
BTI7000 11-10-19 13:03:42
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the OSC facility | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type that is targeted by the message | OSC | |
| ntfncncl | The notification code | See 2.28, "Notification code (ntfncncl)". | Not applicable |
| condtype | The condition type code | See 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-PORT

The RTRV-COND-PORT command retrieves active conditions against DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-PORT:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],
[<conddesc>]"
```

Example command and response

```
RTRV-COND-PORT:BTI7000::100::,,,,;
```

If no conditions exist, the system response is as follows:

```
BTI7000 11-10-19 13:03:42
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | PORT | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|------------------------------|----------------|
| | | RCV (receive) | |
| | | TRMT (transmit) | |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note | |
| | | Appears as \" conddescr \" | |

RTRV-COND-SECU

The RTRV-COND-SECU command retrieves and sends the current status of all alarm conditions for all security entities of the system regardless of state, or whether the condition is alarmed or not alarmed.



Input syntax

```
RTRV-COND-SECU:[TID]:[<aid>]:[CTAG][:[:[<ntfcncde>],[<condtype>], [<locn>],
[<dirn>],[<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>], [<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddescr>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-SECU:BTI7000::100::;
```

```
BTI7000 03-02-17 16:43:11
M 100 COMPLD
"USER,SECU:MN,USRLCKOUT,NSA,02-17,16-42-58,NEND,,NA,\"User locked out.\""
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------|----------------|
| aid | The entity in the network element to which the command pertains | USER | Not applicable |
| aidtype | The entity type that is targeted by the message | SECU | |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ntfncde | The notification code | See 2.28, "Notification code (ntfncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters Note Appears as \" conddescr \" | Not applicable |

RTRV-COND-STMn

The RTRV-COND-STMn commands generate a report on the current conditions on an SDH port of a Muxponder module. Conditions can be alarmed or non-alarmed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|------------------|--|
| RTRV-COND-STM1: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<locn>], [<dirn>],[<tmper>; |
| RTRV-COND-STM4: | |
| RTRV-COND-STM16: | |
| RTRV-COND-STM64: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]"cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-STM1:BTI7000:MXP-1-1-C2:100::,,,,;
```

```
BTI7000 07-07-29 10:50:57
M 100 COMPLD
"MXP-1-1-C2,STM1:NR,LOS,SA,07-28,1-04-17,NEND,,,\"STM1 Loss Of Signal.\""
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-08-29 10:50:50
M 100 COMPLD
```

```
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|---|---|---|----------------|
| aid | The access identifier of the port | STM1/4 | Not applicable |
| | | STM16 | |
| | | STM64 | |
| aidtype | The entity type that is targeted by the message | STM1 | Not applicable |
| | | STM4 | |
| | | STM16 | |
| | | STM64 | |
| ntfncde | The notification code | See 2.28, "Notification code (ntfncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| oortim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locln | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| Note Appears as \" conddescr \" | | | |

RTRV-COND-STSn/STSnC

The RTRV-COND-STSn/STSnC command generates a report on the current conditions on an SDH path facility object of a Muxponder module. Conditions can be alarmed or non-alarmed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|--------------------|--|
| RTRV-COND-STSn: | [TID]:[<aid>]:[CTAG]:[<ntfcncde>], [<condtype>],[<locn>],[<dirn>],[<tmper>; |
| RTRV-COND-STSnC: | |
| RTRV-COND-STSn6C: | |
| RTRV-COND-STSn9C: | |
| RTRV-COND-STSn12C: | |
| RTRV-COND-STSn15C: | |
| RTRV-COND-STSn18C: | |
| RTRV-COND-STSn21C: | |
| RTRV-COND-STSn24C: | |
| RTRV-COND-STSn30C: | |
| RTRV-COND-STSn36C: | |
| RTRV-COND-STSn48C: | |
| RTRV-COND-STSn72C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-STSn1:BTI7000:MXP-1-4-L1-3:100::,,,,;
```

```
BTI7000 07-08-17 16:06:38
M 100 COMPLD
```

```
"MXP-1-6-L2-1,STS1:NA,LOCKOUTOFPR,NSA,08-17,16-06-33,NEND,,,\"Protection
STS1 locked out.\" "
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-07-29 10:50:57
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | STS1 | |
| | | STS3C | |
| | | STS6C | |
| | | STS9C | |
| | | STS12C | |
| | | STS15C | |
| | | STS18C | |
| | | STS21C | |
| | | STS24C | |
| | | STS30C | |
| | | STS36C | |
| | | STS48C | |
| | | STS72C | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---------------------------|---|----------------|
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-SUBODU1

The RTRV-COND-SUBODU1 command generates a report on the current conditions on an SUBODU1 line side port of a 8-Port Multiprotocol Muxponder module. Conditions can be alarmed or non-alarmed.



Input syntax

```
RTRV-COND-SUBODU1:[TID]:[<aid>]:[CTAG]::[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-SUBODU1:BTI7000:MXP-21-1-L1-1:100::,,,,;
```

```
BTI7000 07-08-15 19:57:31
M 100 COMPLD
"MXP-21-1-L1-1,SUBODU1:CR,OCI,SA,03-27,18-51-34,NEND,,,\"Open connection
indicator.\""
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-08-15 19:50:17
M 100 COMPLD
/* No conditions (Alarm or Status) present */
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| aidtype | The entity type that is targeted by the message | SUBODU1 | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.5, “Condition type (condtype)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-VCn/VCnC

The RTRV-COND-VCn/VCnC commands generate a report on the current conditions on a VC4 path facility object of a Muxponder module. Conditions can be alarmed or non-alarmed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|------------------|---|
| RTRV-COND-VC4: | [TID]:[<aid>]:[CTAG]::[<ntfcncde>], [<condtype>],[<locn>],[<dirn>],[<tmper>; |
| RTRV-COND-VC2C: | |
| RTRV-COND-VC3C: | |
| RTRV-COND-VC4C: | |
| RTRV-COND-VC5C: | |
| RTRV-COND-VC6C: | |
| RTRV-COND-VC7C: | |
| RTRV-COND-VC8C: | |
| RTRV-COND-VC10C: | |
| RTRV-COND-VC12C: | |
| RTRV-COND-VC16C: | |
| RTRV-COND-VC24C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,[<srveff>],
[<ocrdat>],
[<ocrtim>],[<locn>],[<dirn>],[<tmper>],[<conddesc>]" cr lf
```

or

```
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-VC4:BTI7000:MXP-1-6-L1-3:100::,,,,;
```

```
BTI7000 07-10-15 03:49:07
```

```
M 100 COMPLD
```

```
"MXP-1-6-L1-3,VC4:NA,AIS-P,NSA,10-15,03-42-37,NEND,,,\"VC Rx Alarm  
Indication Signal.\""
```

```
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 07-07-29 10:57:49
```

```
M 100 COMPLD
```

```
/* No conditions (Alarm or Status) present */  
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| aidtype | The entity type that is targeted by the message | VC4 | |
| | | VC2C | |
| | | VC3C | |
| | | VC4C | |
| | | VC5C | |
| | | VC6C | |
| | | VC7C | |
| | | VC8C | |
| | | VC10C | |
| | | VC12C | |
| | | VC16C | |
| | | VC24C | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | 1-HR NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-WCH

The RTRV-COND-WCH command retrieves active conditions against wavelength channel facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-WCH:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>],[<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],
[<conddesc>]"
```

Example command and response

```
RTRV-COND-WCH:BTI7000::100::,,,,;
```

If no conditions exist, the system response is as follows:

```
BTI7000 11-10-19 13:03:42
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the wavelength-channel object | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type that is targeted by the message | WCH | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.6, "Condition type (condtype) (for DOL)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| dirn | The direction indicator | NA (not applicable) RCV (receive) TRMT (transmit) | Not applicable |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-COND-WDM

The RTRV-COND-WDM command retrieves active conditions against WDM entities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-WDM:[TID]:[<aid>]:[CTAG]::
[<ntfcncde>],[<condtype>], [<locn>],
[<dirn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,
[<ocrdat>],[<ocrtim>],[<locn>],[<dirn>],[<tmper>],
[<conddesc>]"
```

Example command and response

```
RTRV-COND-WDM:BTI7000:rob-1-3-11:100::,,,,;
```

If no conditions exist, the system response is as follows:

```
BTI7000 11-10-19 13:03:42
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the port | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| aidtype | The entity type that is targeted by the message | WDM | |
| ntfcncde | The notification code | See 2.28, “Notification code (ntfcncde)”. | Not applicable |
| condtype | The condition type code | See 2.6, “Condition type (condtype) (for DOL)”. | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| ocrtim | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|------------------------------|----------------|
| | | RCV (receive) | |
| | | TRMT (transmit) | |
| tmper | The performance monitoring time period | NA (enum) | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note | |
| | | Appears as \" conddescr \" | |

RTRV-COND-XCVR

The RTRV-COND-XCVR command returns a report of the current condition(s) of ports on a Transponder module. Conditions can be alarmed or non-alarmed.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-COND-XCVR:[TID]:[<aid>]:[CTAG][:[:[:<ntfcncde>],[:<condtype>],[:<locn>],[:<dirn>],[:<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>,<aidtype>:<ntfcncde>,<condtype>,<srveff>,<ocrdat>,<ocrtim>,<locn>,<dirn>,<tmper>,<conddescr>" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-COND-XCVR:BTI7000::100::;
```

```
BTI7000 05-02-03 07:53:06
M 100 COMPLD
"WR-1-2-1,XCVR:MJ,REPLUNITMISS,SA,02-03,07-51-15,NEND,,NA,\"SFP missing.
\" "
;
```

If no conditions exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No conditions (Alarm or Status) present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aidtype | The entity type that is targeted by the message | XCVR | |
| ntfcncde | The notification code | See 2.28, "Notification code (ntfcncde)". | Not applicable |
| condtype | The condition type code | See 2.5, "Condition type (condtype)". | Not applicable |
| srveff | The service effect parameter | NSA (non-service-affecting) SA (service-affecting) | Not applicable |
| ocrdat | The occurrence date expressed as month-day | MM-DD | Date |
| overtime | The occurrence time using a 24-hour clock expressed as hour-minute-second | HH-MM-SS | Time |
| locn | The location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | NA (not applicable) | Not applicable |
| tmper | The performance monitoring time period | Not available in this release | Not applicable |
| conddescr | The condition description | String of 0 to 63 characters | Not applicable |
| | | Note Appears as \" conddescr \" | |

RTRV-CONN-EQPT

The RTRV-CONN-EQPT command retrieves a listing of all required fiber patch connections between DOL equipment modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CONN-EQPT:[TID]:[<fromAid>],[<toAid>]:[CTAG];
```

Message syntax

```
"<fromAid>,<toAid>:<type>"
```

Example command and response

```
RTRV-CONN-EQPT:BTI7000:rob-1-3-c2,rob-11-1-c2:100;
      BTI7000 11-10-19 12:51:01
M  100 COMPLD
    "ROB-1-3-C2,ROB-11-1-C2:DUPLEX"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| fromAid | The source DOL fiber connection | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| toAid | The AID of the destination fiber connection | | |
| type | The connection type | DUPLEX LOOPBACK | Not applicable |

RTRV-CRS-ODU1

The RTRV-CRS-ODU1 command retrieves provisioning information for an asynchronous connection between a line port on a 10-Port Multiprotocol Muxponder and an OC-48/STM-16 client.

The table below shows the supported ODU1 cross connections that can be retrieved on BT7A48AA-I02 and BT7A48BA-I02 modules.

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---|-----------------------|
| Line 1 SONET/SDH ODU1 | Source and Destination quadrant must be the same. One pass-through cross connect of this type can be provisioned. | Line 2 SONET/SDH ODU1 |
| Line 1 SONET /SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |
| Line 2 SONET/ SDH ODU1 | Any available quadrant | Client SONET/SDH ODU1 |

Note On NE shelves running release 13.1 and lower, ODU1 pass-through connections are not supported on BT7A48AA-I02 and BT7A48BA-I02 modules. ODU1 add / drop cross connections are supported on Line 1 only.

The table below shows the supported ODU1 cross connections which can be retrieved on BT7A48AA, BT7A48BA and BT7A48DA modules

| Source | Quadrant Allocation (1-4) | Destination |
|------------------------|---------------------------|-------------|
| Line 1 SONET/ SDH ODU1 | ODU1#1 | Client 1 |
| Line 1 SONET/ SDH ODU1 | ODU1#2 | Client 2 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 3 |
| Line 1 SONET/ SDH ODU1 | ODU1#3 | Client 4 |

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CRS-ODU1:[TID]:[<src_aid>],[<dst_aid>]:[CTAG]:[<cct>]:
[DISPLAY=<display>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<src_aid>,<dst_aid>:<cct>:[<sst>]" cr lf
;
```

Example command and response

```
RTRV-CRS-ODU1:BTI7000:, :100:::SWMATE=:DISPLAY=;
```

```
BTI7000 07-07-28 16:26:46
```

```
M 100 COMPLD
```

```
"MXP-1-1-L1-1,MXP-1-1-C1:2WAY::"
```

```
;
```

Parameters

| Parameter | Description | | Range | Default |
|-----------|-----------------------------------|--|---|----------------|
| src_aid | The source access identifier | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.2 and greater | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| | | BT7A48AA-I02 BT7A48BA-I02 - Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(L1)-(1-4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| dst_aid | The destination access identifier | BT7A48AA-I02 BT7A48BA-I02 Rel 13.2 and greater | MXP-(1,11,21,31)-(1....20)-(L1, L2, C1, C2, C3, C4)-(1-4) | Not applicable |
| | | BT7A48AA-I02 BT7A48BA-I02 Rel 13.1 and lower | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | BT7A48AA BT7A48BA BT7A48DA | | |
| cct | The cross-connection type | | 2WAY | 2WAY |

RTRV-CRS-STSn/STSnC

The RTRV-CRS-STSn/STSnC commands retrieve provisioning information for a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-------------------|---|
| RTRV-CRS-STSn: | [TID]:[<src_aid>],[<dst_aid>]:[CTAG]:[<cct>]: |
| RTRV-CRS-STSnC: | [SWMATE=<swmate>]:[DISPLAY=<display>]; |
| RTRV-CRS-STSn6C: | |
| RTRV-CRS-STSn9C: | |
| RTRV-CRS-STSn12C: | |
| RTRV-CRS-STSn15C: | |
| RTRV-CRS-STSn18C: | |
| RTRV-CRS-STSn21C: | |
| RTRV-CRS-STSn24C: | |
| RTRV-CRS-STSn30C: | |
| RTRV-CRS-STSn36C: | |
| RTRV-CRS-STSn48C: | |
| RTRV-CRS-STSn72C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<src_aid>,<dst_aid>:<cct>:[<swmate>]:[<sst>]" cr lf
;
```

Example commands and responses

```
rtrv-crs-sts6c:BTI7000:MXP-21-1-L1-7,MXP-21-1-C3:100:::SWMATE=:DISPLAY=prov ;
```

```
BTI7000 07-07-28 16:26:46
```

```
M 100 COMPLD
```

```
"MXP-21-1-L1-7,MXP-21-1-C3:2WAYPR:MXP-21-1-L2-7:"
```

```
;
```

```
rtrv-crs-sts30c::BTI7000:MXP-21-1-L1-7,MXP-21-1-  
C3:100:::SWMATE=:DISPLAY=act ;
```

```
BTI7000 07-07-28 16:26:46
```

```
M 100 COMPLD  
      "MXP-21-1-L1-7,MXP-21-1-C3:2WAY::WRK"  
      "MXP-21-1-L2-7,MXP-21-1-C3:2WAY::STDBY"  
      ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| src_aid | The source access identifier | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| dst_aid | The destination access identifier | See 2.9, "Destination AID (dst_aid)". | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |
| display | The type of path activity | ACT PROV | PROV |
| swmate | The protection AID for the path-protected connection | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-CRS-SUBODU1

The RTRV-CRS-SUBODU1 command retrieves provisioning information for an asynchronous connection between a line port on an 8-Port Multiprotocol Muxponder and an OC-3/STM-1 or OC-12/STM4 client.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CRS-SUBODU1:[TID]:[<src_aid>],[<dst_aid>]:[CTAG]::[<cct>]:
[DISPLAY=<display>];
```

Parameters

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<src_aid>,<dst_aid>:<cct>:[<sst>]" cr lf
;
```

Example command and response

```
RTRV-CRS-SUBODU1:BTI7000:,:100:::SWMATE=:DISPLAY=;
```

```
BTI7000 07-07-28 16:26:46
M 100 COMPLD
"MXP-21-1-L1-3,MXP-21-1-C1:2WAY::"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| src_aid | The source access identifier | MPX-(1,11,21,31)-(1,3,5...19)-(L1,L2)-(1-4) | Not applicable |
| dst_aid | The destination access identifier | MPX-(1,11,21,31)-(1, 3,5)-(C1-C4) | Not applicable |
| cct | The cross-connection type | 2WAY | 2WAY |
| display | The type of path activity | PROV | PROV |
| sst | The secondary state of the equipment | See 2.41, “Secondary state (sst)” . | Not applicable |

RTRV-CRS-VCn/VCnC

The RTRV-CRS-VCn/VCnC commands retrieve provisioning information for a cross-connection between a line port and a client port or another line on an 8-Port or 10-Port Multiprotocol Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-----------------|--|
| RTRV-CRS-VC4: | [TID]:[<src_aid>],[<dst_aid>]:[CTAG]::[<cct>]: |
| RTRV-CRS-VC2C: | [SWMATE=<swmate>]:[DISPLAY=<display>]; |
| RTRV-CRS-VC3C: | |
| RTRV-CRS-VC4C: | |
| RTRV-CRS-VC5C: | |
| RTRV-CRS-VC6C: | |
| RTRV-CRS-VC7C: | |
| RTRV-CRS-VC8C: | |
| RTRV-CRS-VC10C: | |
| RTRV-CRS-VC12C: | |
| RTRV-CRS-VC16C: | |
| RTRV-CRS-VC24C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<src_aid>,<dst_aid>:<cct>:[<swmate>]:[<sst>]" cr lf
;
```

Example commands and responses

```
RTRV-CRS-VC5C:BTI7000:MXP-1-1-L1-33,MXP-1-1-C9:100:::SWMATE=:DISPLAY=PROV;
```

```
BTI7000 07-07-28 16:26:46
M 100 COMPLD
"MXP-1-1-L1-33,MXP-1-1-C9:2WAY:::"
;
```

```
RTRV-CRS-VC4C:BTI7000:MXP-1-1-L1-4,MXP-1-1-C4:100:::SWMATE=:DISPLAY=ACT;
```

BTI7000 07-07-28 16:26:46

M 100 COMPLD

"MXP-1-1-L1-4,MXP-1-1-C1:2WAY::WRK"

"MXP-1-1-L2-4,MXP-1-1-C4:2WAY::STDBY"

"MXP-1-1-L1-5,MXP-1-1-C4:2WAY::WRK"

"MXP-1-1-L2-5,MXP-1-1-C4:2WAY::STDBY"

;

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| src_aid | The source access identifier | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| dst_aid | The destination access identifier | See 2.9, "Destination AID (dst_aid)". | Not applicable |
| cct | The cross-connection type | 2WAY 2WAYPR | Not applicable |
| display | The type of path activity | ACT PROV | PROV |
| swmate | The protection AID for the path-protected connection | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-CRS-VCG

The RTRV-CRS-VCG command retrieves provisioning for a cross-connection on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CRS-VCG:[TID]:[<src_aid>],[<dst_aid>]:[CTAG]::[<cct>]:
[SWMATE=<swmate>]:[DISPLAY=<display>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^
^^^"<src_aid>,<dst_aid>:<cct>:[<swmate>]:[<sst>]" cr lf
;
```

Example command and response

```
RTRV-CRS-VCG:BTI7000::100::;
```

```
BTI7000 07-07-28 16:26:46
```

```
M 100 COMPLD
    "MXP-1-1-L1-1,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-1,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-2,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-2,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-3,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-3,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-4,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-4,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-5,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-5,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-6,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-6,MXP-1-1-C6:2WAY::STDBY"
    "MXP-1-1-L1-7,MXP-1-1-C6:2WAY::WRK"
    "MXP-1-1-L2-7,MXP-1-1-C6:2WAY::STDBY"
;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|---|--|---|----------------|
| | | Input | Output | |
| src_aid | The source access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-192) (the STS AID) MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-48) (the VC4 AID) | Not applicable |
| | | Note A VCG AID is returned when DISP = PROV. An MXP AID is returned when DISP = ACT. | | |
| dst_aid | The destination access identifier | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) MXP-(1,11,21,31)-(1-20)-(C1-C10) (the client port AID) | | Not applicable |
| | Note For an add/drop cross-connection, use a client port AID. For a pass-through cross-connection, use a line side VCG AID. | | | |
| cct | The cross-connection type | 2WAY 2WAYPR | | Not applicable |
| display | The type of path activity | ACT PROV | | PROV |
| | | Note ACT applies only when CCT = 2WAYPR. | | |
| swmate | The protection AID for the path-protected connection | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) | VCG-(1,11,21,31)-(1-20)-(L1,L2)-(1-10) MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-192) (the STS AID) MXP-(1,11,21,31)-(1-20)-(L1,L2)-(1-48) (the VC4 AID) | Not applicable |
| sst | The secondary state of the equipment | See 2.41, “ Secondary state (sst) ”. | | Not applicable |

RTRV-CRS-WCH

The RTRV-CRS-WCH command retrieves retrieves provisioned wavelength channel cross-connections.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CRS-WCH:[TID]:[<fromAid>,<toAid>]:[CTAG];
```

Message syntax

```
"<fromAid>,<toAid>::[SERVICENAME=<serviceName>]"
```

Example command and response

```
RTRV-CRS-WCH::BTI7000:rob-1-3-L1-210,rob-11-1-11-210;;
BTI7000 11-10-19 12:55:55
M 100 COMPLD
"ROB-1-3-L1-210,ROB-11-1-L1-210::"
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|---|----------------|
| fromAid | The access identifier of the source end-point | See 2.2, " AID type (aidtype) (for DOL)". | Not applicable |
| toAid | The access identifier of the destination end-point | See 2.2, " AID type (aidtype) (for DOL)". | Not applicable |
| serviceName | The name of the end-to-end wavelength service of which the cross-connection is a part | 1 to 32 alphanumeric characters | Not applicable |

RTRV-CRS-XCVR

The RTRV-CRS-XCVR command retrieves a cross-connect port on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-CRS-XCVR:[TID]:[<src_aid>],[<dst_aid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^
  "<src_aid>,<dst_aid>:<ctype>" cr lf;
```

Example command and response

```
RTRV-CRS-XCVR:BTI7000:,:100;
```

```
BTI7000 05-02-03 07:55:14
M 100 COMPLD
  "WR-1-1-1,WR-1-1-1:1WAY";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--|----------------|
| src_aid | The source access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) Note If SRC_AID is used, DST_AID must also be used. | Not applicable |
| dst_aid | The destination access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) Note If DST_AID is used, SCR_AID must also be used. | Not applicable |
| ctype | The cross-connection type | 1WAY | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-------------|-------|---------|
| | | 2WAY | |

RTRV-DB-RST

The RTRV-DB-RST command retrieves the database restore file name from the MSCP that has been previously loaded using the LOAD-DB-RST command.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-DB-RST:[TID]::[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<filename>" cr lf
;
```

Example command and response

```
RTRV-DB-RST:BTI7000::100;

      BTI7000 03-02-17 16:46:42
M 100 COMPLD
    "BTI7000_February06_2010"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---------------------------------------|--------|----------------|
| filename | The name of the database restore file | String | Not applicable |

RTRV-EQPT

The RTRV-EQPT command retrieves equipment provisioning information and state information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-EQPT:[TID]:[<aid>]:[CTAG]:;;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>:<type>:[<ID=<id>]>,[C1=<custom1>],
[C2=<custom2>],[C3=<custom3>]:[<pst>],[<sst>]" cr lf
;
```

Example command and response for BTI 7060

```
RTRV-EQPT:BTI7000::100::;
```

```
BTI7000 04-02-19 10:43:56
M 100 COMPLD
"MS-1:BT7A53BA:IS-NR,"
"SCP-1-5:BT7A50AA::IS-NR,"
"OLAM-1-1:BP1A04BA::OOS-AU,MEA"
"OPA-1-2:BP1A01DA::OOS-AU,MEA"
"OLAM-1-3:BP1A04BA::OOS-AU,MEA"
"OLAM-1-4:BP1A04BA::OOS-AU,MEA"
"OLAM-1-6:BP1A04BA::OOS-AU,SWDL"
;
```

Example command and response for BTI 7030

```
RTRV-EQPT:BTI7000::100::;
```

```
BTI7000 04-02-19 10:43:56
M 100 COMPLD
  "SH-1:BP1A5625:IS-NR, "
  "SCP-1-3:BP1A21AA::IS-NR, "
  "OLAM-1-1:BP1A04BA::OOS-AU, MEA "
  "OPA-1-2:BP1A01AA::OOS-AU, MEA "
;
```

Parameters

| Parameter | Description | Range | Default Value |
|------------|--|--|----------------|
| aid | The access identifier | See 2.11, "Equipment AID (aid)" , or 2.2, "AID type (aidtype) (for DOL)" | Not applicable |
| type | The product equipment code (PEC) of the equipment | See 2.44, "Type (type)" . | Not applicable |
| id | The physical location of the equipment | String | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

RTRV-FC

The RTRV-FC command retrieves provisioning and state information for a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-FC:[TID]:[<aid>]:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^^"<aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],[LASERSTATUS=<laserstatus>],[OPRHT=<oprht>],
[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],[FIBERTYPE=<fibertype>],
[WAVELENGTH=<wavelength>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[AINSTMTR=<ainstmtr>],
[ACTAINSTMTR=<actainstmtr>],[GFPMODE=<gfpmode>],[FCRATE=<fcrate>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-FC:BTI7000::100::;
```

```
BTI7000 14-01-22 15:49:29
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C3:PHYPMON=ON,LASERSTATUS=ON,OPRHT=0.6,OPRLT=-23.9,OPTHT=0.9,OPTLT=-13.4,WAV
ELENGTH=1310,FPSD=OFF,AINSTMTR=08-00,GFPMODE=GFP-
```

```
T,FCRATE=1G,LASERCTRL=AUTO:OOS-AU,AINS"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3, 5)-(C1-C10) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | ON OFF | OFF |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| speed | The speed of the port | 0 1000 | Not applicable |
| duplex | The transmission mode of the port | FULL | FULL |
| mtu | The maximum transmission unit (that is, packet size) of the port | Integer | 9600 |
| mediarate | The Ethernet speed and duplex rate in Mbps | 1000FD | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| fpsd | The fault propagation shutdownindicator | ON OFF | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|------------|---|--|------------------------------|
| gfpmode | The GFP mode | GFP-F GFP-T | Not applicable |
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| fcrate | The Fibre Channel speed and duplex rate | 1G 2G 4G | 1G |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-FE

The RTRV-FE command retrieves provisioning and state information for a Fast Ethernet (FE) client side port of a 2-Port GbE Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-FE:[TID]:[<aid>]:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:<ID1=<ID>],[CUSTOM1=<custom>],[SPEED=<speed>],[DUPLEX=<duplex>],
[MTU=<mtu>],[MACADDRESS=<macaddress>],[REMOTEID=<remoteid>]" cr lf
;
```

Example command and response

```
RTRV-FE:BTI7000::100::;
```

```
BTI7000 07-07-28 10:20:40
M 100 COMPLD
"MXP-1-6-C3:SPEED=100,DUPLEX=FULL,MTU=9600,MACADDRESS=0014d0000273"
;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|----------------------------------|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1-20)-(C3-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| speed | The speed of the port | 10 100 | Not applicable |
| duplex | The transmission mode of the port | FULL | FULL |
| mtu | is the maximum transmission unit (that is, packet size) of the port | Integer | 9600 |
| macaddress | The MAC address expressed as 00-00-00-00-00-00 | Integer | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

RTRV-FFP-OCn

The RTRV-FFP-OCn commands retrieve provisioning information for a protection group on a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|----------------|---|
| RTRV-FFP-OC48 | [<TID>]: [<work>], [<protect>]: [CTAG]; |
| RTRV-FFP-OC192 | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<work>,<protect>::[PROTID=<protid>]" cr lf
;
```

Example command and response

```
RTRV-FFP-OC48:BTI7000::100;

      BTI7000 05-06-05 15:00:00
M CTAG COMPLD
      "MXP-1-1-L1,MXP-1-1-L2::PROTID=2"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |

RTRV-FFP-STMn

The RTRV-FFP-STMn commands retrieve provisioning information for an SDH protection group on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|----------------|---|
| RTRV-FFP-STM16 | [<TID>] : [<work>] , [<protect>] : [CTAG] ; |
| RTRV-FFP-STM64 | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <work> , <protect> :: [ PROTID = <protid> ] " cr lf
;
```

Example command and response

```
RTRV-FFP-STM16:BTI7000::100;

      BTI7000 05-06-05 15:00:00
M CTAG COMPLD
  "MXP-1-1-L1,MXP-1-1-L2::PROTID=2"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|------------------------------------|----------------|
| work | The access identifier of the working port | MXP-(1,11,21,31)-(1,3,5...19)-(L1) | Not applicable |
| protect | The access identifier of the protecting port | MXP-(1,11,21,31)-(1,3,5...19)-(L2) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |

RTRV-FFP-XCVR

The RTRV-FFP-XCVR command retrieves protection group provisioning information for Transponder modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-FFP-XCVR:[TID]:[<work>],[<protect>]:[CTAG];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<work>,<protect>::[<protid>],<psdirn>" cr lf;
```

Example command and response

```
RTRV-FFP-XCVR:BTI7000:WM-1-2-2:100;
```

```
BTI7000 05-06-05 15:00:00
M CTAG COMPLD
"WM-1-2-2,WM-1-2-4::PROTID=2";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|--------------------------------|
| work | The access identifier of the working port | ALL TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protect | The access identifier of the protecting port | ALL TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| protid | The protection group identifier | 1 to 32 alphanumeric characters | Not applicable |
| psdirn | The protection switch direction | UNI or BI The BI option is available for line protection groups on BT7A49AA-IO2 modules, and for client | UNI for line protection groups |

| Parameter | Description | Range | Default |
|-----------|-------------|---|---------------------------------|
| | | protection groups on all transponder modules that support client Y-cable protection. The UNI option is available for line protection groups on BT7A49AA-IO2 modules, but is mandatory for line protection groups on all other transponders. This option is not available for client protection groups. | BI for client protection groups |

RTRV-GCC0

The RTRV-GCC0 command retrieves the attributes of a specified GCC0 service, or all GCC0 services, on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-GCC0:[TID]:[<aid>]:[CTAG]:;
```

where

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:<mode>,<stacktype>,<state>:<pst>,<sst> cr lf
;
```

Example command and response

```
RTRV-GCC0:BTI7000:TPR-1-3-3:100::;
```

```

RTRV-GCC0:BTI7000:TPR-1-3-3:100;
BTI7000 08-04-14 11:16:06
M 100 COMPLD
"TPR-1-3-3:FRATE,IP:OOS-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|--|
| aid | The access identifier | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) TPR-(1,11,21,31)-(1-20)-(1-4) PVX-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| mode | The framing and speed mode of the GCC connection | FRATE (full bandwidth) LRATE (limited to 192kb/s) | Determined by the branding of the board. |
| stacktype | Specifies the GCC0 stacktype. | IP | Not applicable |
| state | The state of the link. | ACTIVE - all GCC0 stack parameter settings are active. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| | | CREATING - there is an unapplied GCC0 link addition pending. DELETING - there is an unapplied GCC0 link removal pending. | |
| pst | The primary state of the equipment | IS-NR OOS | Not applicable |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

RTRV-GE

The RTRV-GE command retrieves provisioning and state information for a gigabit Ethernet (GE) client side port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-GE:[TID]:[<aid>]:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmmon>],
[LASERSTATUS=<laserstatus>],[OPRHT=<oprht>],[OPRLT=<oprlt>],
[OPTHT=<optht>],[OPTLT=<optlt>],[FIBERTYPE=<fibertype>],
[SPEED=<speed>],
[DUPLEX=<duplex>],[MTU=<mtu>],[MEDIARATE=<mediarate>],
[WAVELENGTH=<wavelength>],[FPSD=<fpsd>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[MACADDRESS=<macaddress>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],
[FLOWCTRL=<flowctrl>],[GFPMODE=<gfpmode>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-GE:BTI7000::100::;
```

```
BTI7000 14-01-22 11:15:31
M 100 COMPLD
"MXP-1-1-
C4:PHYPMON=OFF,LASERSTATUS=ON,OPRHT=0.9,OPRLT=-19.9,OPTHT=-1.9,OPTLT=-11.7,S
PEED=0,MTU=9600,MEDIARATE=1000FD,WAVELENGTH=850,FPSD=OFF,MACADDRESS=0014d0004
6cd,AINSTMR=08-00,FLOWCTRL=TRANSPARENT,GFPMODE=GFP-T,LASERCTRL=AUTO:OOS-
AU,AINS&FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|----------------------------------|----------------|
| aid | The access identifier | MXP-(1,11,21,31)-(1-20)-(C1,C10) | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the SFP | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | ON OFF | OFF |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| speed | The speed of the port | 0 1000 | Not applicable |
| duplex | The transmission mode of the port | FULL | FULL |
| mtu | The maximum transmission unit (that is, packet size) of the port | Integer | 9600 |
| mediarate | The Ethernet speed and duplex rate in Mbps | AUTO 1000FD | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| fpsd | The fault propagation shutdown indicator | ON OFF | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| macaddress | the MAC address expressed as 00-00-00-00-00-00 | String | Not applicable |

| Parameter | Description | Range | Default |
|------------|---|--|------------------------------|
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| flowctrl | The flow control | TRANSPARENT LOCAL | Not applicable |
| gfpmode | The GFP mode | GFP-F GFP-T | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

RTRV-HDR

The RTRV-HDR command retrieves basic TL1 header information from the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-HDR:[TID]::[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
;
```

Example command and response

```
RTRV-HDR:BTI7000::100::;
```

```
BTI7000 02-11-05 15:00:02
M 100 COMPLD
;
```

| | |
|-------------|--|
| Note | If the user is not logged in to the BTI 7000 Series before entering this command, the system returns a DENY message. |
|-------------|--|

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|------------------|
| tid | The target identifier, which represents the target network element that is to receive the TL1 command | See 1.1.2, "Staging block" . | Assigned NE name |
| ctag | The correlation tag, which is a sequential command identifier used to correlate an input command to its associated output | See 1.1.2, "Staging block" . | 100 |
| sid | The system identification code of the network element | 1 to 20 alphanumeric characters. | Not applicable |
| date | The date that the command is executed expressed as year-month-day | YY-MM-DD | Date |
| time | The time that the command was executed expressed as hour-minute-second (24-hour clock) | HH-MM-SS | Time |
| M | The character indicating that the message is a response to an input command | M | M |
| COMPLD | The response code indicating that the requested operation completed successfully | COMPLD | COMPLD |

RTRV-HKEY-FPRNT

The RTRV-HKEY-FPRNT command retrieves the SSH hostkey fingerprint from the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-HKEY-FPRNT:[TID]::[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
;
```

Example command and response

```
RTRV-HKEY-FPRNT:FLASHWAVE7120::100::;
FLASHWAVE7120 10-05-01 14:07:30
M 100 COMPLD
KEY:"c1:b1:30:29:d7:b8:de:6c:97:77:10:d7:46:41:63:87"
```

| | |
|-------------|--|
| Note | If the user is not logged in to the BTI 7000 Series before entering this command, the system returns a DENY message. |
|-------------|--|

RTRV-HLP-AID

The RTRV-HLP-AID command provides a list of valid AIDs for a specified TL1 command.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

RTRV-HLP-AID:[TID]:[<vmm>]:[CTAG]::;

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
    <vmm>,<vmm_aid_info> cr lf
;
```

Example command and response

RTRV-HLP-AID:BTI7000:rtrv-ser:100;

```
BTI7000 03-02-14 11:21:13
M 100 COMPLD
    rtrv-ser,ALL
    rtrv-ser,SER-1;
```

Parameters

| Parameter | Description | Range | Default |
|--------------|---|---|----------------|
| vmm | The command code block (also known as the verb-modifier-modifier) of the TL1 command | See 1.1, “How TL1 commands are structured”. | Not applicable |
| | Note The second modifier is not significant in terms of the AIDs that are returned. | | |
| vmm_aid_info | The access identifier (AID) information for the command code block | See 1.1, “How TL1 commands are structured”. | Not applicable |

RTRV-HLP-CMD

The RTRV-HLP-CMD command provides the syntax for the specified TL1 command.

Note Once the command is fully entered, typing "?" provides the same information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-HLP-CMD:[TID]:[<vmm>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
    <vmm_cmd_syntax> cr lf
;
```

Example command and response

```
RTRV-HLP-CMD:BTI7000:ed-oa:100::;
```

```
BTI7000 02-11-05 15:00:01
M 100 COMPLD
ED-OA:[TID]:<aid>:[CTAG]::[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],
[GRID=<grid>],[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[LASERSTATUS=<laserstatus>],[OAMDE=<oamde>],[GAIN=<gain>],[PWR=<pwr>],[CTEMP-
HT=<ctempht>],[OPR-LT=<oprlt>],[OPR-HT=<oprht>],
[OPT-LT=<optlt>],[OPT-HT=<opht>],[MSLOSS-HT=<mslossht>],[CMDMDE=<cmdmde>]:
[<pst>],[<sst>;
```

Parameters

| Parameter | Description | Range | Default |
|--------------------|---|---|----------------|
| vmm | The command code block (also known as the verb-modifier-modifier) of the TL1 command Note The second modifier is not significant in terms of the AIDs that are returned. | See 1.1, “ How TL1 commands are structured ”. | Not applicable |
| vmm_cmd_syn tax | The syntax information for the command code block | See 1.1, “ How TL1 commands are structured ”. | Not applicable |

RTRV-HLP-ENUM

The RTRV-HLP-ENUM command provides a list of values for the enumerated-valued parameters. This command can also provide a list of all such parameter names, if no name is specified.

Note The RTRV-HLP-ENUM command returns ALL as a viable parameter. This parameter is not supported and will be rejected by the software.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-HLP-ENUM:[TID]:[<name>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
  <enum_info> cr lf
;
```

Example command and response

```
RTRV-HLP-ENUM:BTI7000:TimePeriod:100::;
```

```
BTI7000 02-11-05 15:00:04
M 100 COMPLD
  15MIN
  1DAY
  ALL
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| name | <p>The enumerated name</p> <p>Note</p> <p>When this parameter is not entered as part of the command, the system response is to list all parameter names.</p> | The name of the parameter (for example, TimePeriod is for time period). | Not applicable |
| enum_info | <p>The enumerator information for the enumerated name</p> <p>Note</p> <p>When a parameter name is specified in the command, each enum_info entry in the system response specifies a valid value for the parameter specified.</p> <p>Note</p> <p>When no parameter name is specified in the command, each enum_info entry in the system response specifies the name of a parameter supported in the BTI 7000 Series command set.</p> | See 3.4, “ How TL1 commands and messages are described ”. | Not applicable |

RTRV-INV

The RTRV-INV command retrieves the system inventory (that is, all of the circuit packs and common equipment that are present in the system).

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-INV:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
SID DATE TIME
M CTAG COMPLD
  "<aid>,<aidtype>:[NAME=<name>],[PEC=<pec>],[CLEI=<clei>],[FNAME=<fname>],
[SER=<ser>],[HWREV=<hwrev>],[FW=<fw>],[MFGDAT=<mfgdat>],[MFGLOCN=<mfglocn>],
[TSTDAT=<tstdat>],[TSTLOCN=<tstlocn>],[WAVELENGTH=<wavelength>],
[WAVELENGTHMIN=<wavelengthmin>],[WAVELENGTHMAX=<wavelengthmax>],
[WAVELENGTHSPACING=<wavelengthspacing>],[REACH=<reach>],[MINBR=<minbr>],
[MAXBR=<maxbr>],[NOMBR=<nombr>],[ENCODING=<encoding>],[CONNTYPE=<conntype>],
[VENDORNAME=<vendorname>],[VENDORPN=<vendorpn>],[VENDOROUI=<vendoroui>],
[TXFAULTIMP=<txfaultimp>],[TXDISABLEIMP=<txdisableimp>],[LOSIMP=<losimp>],
[DDIAGIMP=<ddiagimp>],[MEDIA=<media>],[USI=<usi>]"
```

Example command and response for BTI 7060

```
RTRV-INV:BTI7000::100::;
```

```
BTI7000 00-12-24 14:30:54
M 100 COMPLD
  "MS-1,EQPT:NAME=MS-1,PEC=BT7A50AA,CLEI=WMMKTWOKRA,FNAME=Main Shelf
7060,HWREV="\0\",USI=N/A"
  "SLOT-1-1,EQPT:NAME=MXP10G,PEC=BT7A48BA,FNAME=10G MULTIPROTOCOL MUXPONDER
- SDH,SER="\SN00007376\",HWREV="\1\",MFGDAT="\2009-09-25\",MFGLOCN=BTI
Northside,TSTDAT=2009-09-25,TSTLOCN=BTI Northside,USI=N/A"
  "XFP-1-1-L1,EQPT:PEC=BP3AM4MS,CLEI=WMOTCMYHAA,SER="\T08J26874\",HWREV=
"\00\",MFGDAT=
"\2008-09-29\",WAVELENGTH=1310,REACH=10,MINBR=10000,MAXBR=11100,ENCODING=NRZ,
CONNTYPE=LC,VENDORNAME="\Opnext Inc.\",VENDORPN="\TRF5012FS-LA000\",VENDOROUI=
"\000B40\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=
LBFJTU16089T08J26874"
  "XFP-1-1-L2,EQPT:PEC=BP3AM4MS,CLEI=WMOTCMYHAA,SER="\T08A07753\",HWREV=
"\00\",MFGDAT=
"\2008-01-23\",WAVELENGTH=1310,REACH=10,MINBR=10000,MAXBR=11100,ENCODING=NRZ,
CONNTYPE=LC,VENDORNAME="\Opnext Inc.\",VENDORPN="\TRF5012FS-LA000\",VENDOROUI=
"\000B40\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=
LBFJTU16081T08A07753"
```

"SFP-1-1-C2,EQPT:PEC=BP3AD1SS,CLEI=WMOMA0FAAA,SER=\"F6154704019E\",HWREV=\\\"0000\\\",MFGDAT=\\\"2006-05-14-01\\\",WAVELENGTH=850,MINBR=1050,MAXBR=2205,NOMBR=2100,ENCODING=8B10B,CONNTYPE=LC,VENDORNAME=\\\"JDS UNIPHASE\\\",VENDORPN=\\\"JSH-21S3AB3\\\",VENDOROUI=\\\"00019C\\\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=LBFJTU16065F6154704019E"

"SLOT-1-5,EQPT:NAME=SCP,PEC=BT7A20CA,FNAME=7060 System Control Processor,SER=\\\"SN00101961\\\",HWREV=\\\"2\\\",MFGDAT=\\\"2008-09-29\\\",MFGLOCN=BTI Northside,TSTDAT=2008-09-29,TSTLOCN=BTI Northside,USI=N/A"

"ESFP-1-5-2,EQPT:PEC=BP1A58DD-03,SER=\\\"633830198\\\",HWREV=\\\"D\\\",MFGDAT=\\\"2006-12-04\\\",WAVELENGTH=0,MINBR=100,MAXBR=2525,NOMBR=2500,ENCODING=UNKNOWN,CONNTYPE=COPPER_PIGTAIL,VENDORNAME=\\\"Molex Inc.\\\",VENDORPN=\\\"73929-0027\\\",VENDOROUI=\\\"00093A\\\",TXFAULTIMP=N,TXDISABLEIMP=N,LOSIMP=N,DDIAGIMP=N,MEDIA=ELECTRICAL,USI=LBFJTU1606C633830198"

"SLOT-1-6,EQPT:NAME=MXP2.5G,PEC=BP1A46AA,CLEI=NotSet,FNAME=2-PORT 2.5G MUXPONDER - SONET,SER=\\\"SN00004522\\\",HWREV=\\\"1\\\",MFGDAT=\\\"2009-04-29\\\",MFGLOCN=BTI Northside,TSTDAT=2009-04-29,TSTLOCN=BTI Northside,USI=N/A"

"SI-1,EQPT:NAME=MSI,PEC=BT7A53BA,CLEI=WMEC280KAA,FNAME=Main Shelf Interface,SER=\\\"SN00097183\\\",HWREV=\\\"11\\\",MFGDAT=\\\"2008-03-11\\\",MFGLOCN=BTI Northside,TSTDAT=2008-03-11,TSTLOCN=BTI Northside,USI=N/A"

"CU-1,EQPT:NAME=CU,PEC=BT7A52DA,CLEI=WMPQAWD7AA,FNAME=Cooling Unit,SER=\\\"SN00091399\\\",HWREV=\\\"9\\\",MFGDAT=\\\"2008-03-03\\\",MFGLOCN=BTI Northside,TSTDAT=2008-03-03,TSTLOCN=BTI Northside,USI=N/A"

"ES-21,EQPT:NAME=ES7120L,PEC=BT7A50AA,CLEI=WMMBA00ARA,FNAME=Expansion Shelf FLASHWAVE 7120L,HWREV=\\\"1\\\",USI=LBFJTU16686SHL101"

"SLOT-21-1,EQPT:NAME=MXP10G,PEC=BT7A48AA,FNAME=10G MULTIPROTOCOL MUXPONDER - SONET and VCAT,SER=\\\"SN00008055\\\",HWREV=\\\"0\\\",MFGDAT=\\\"2009-03-12\\\",MFGLOCN=BTI Northside,TSTDAT=2009-03-12,TSTLOCN=BTI Northside,USI=N/A"

"XFP-21-1-L1,EQPT:PEC=BP3AM4MS,CLEI=WMOTCMYHAA,SER=\\\"T07B85879\\\",HWREV=\\\"00\\\",MFGDAT=\\\"2007-02-26\\\",WAVELENGTH=1310,REACH=10,MINBR=10000,MAXBR=11100,ENCODING=NRZ,CONNTYPE=LC,VENDORNAME=\\\"Opnext Inc.\\\",VENDORPN=\\\"TRF5012FS-LA000\\\",VENDOROUI=\\\"000B40\\\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=LBFJTU16072T07B85879"

"XFP-21-1-L2,EQPT:PEC=BP3AM4MS,CLEI=WMOTCMYHAA,SER=\\\"T08A07798\\\",HWREV=\\\"00\\\",MFGDAT=\\\"2008-01-23\\\",WAVELENGTH=1310,REACH=10,MINBR=10000,MAXBR=11100,ENCODING=NRZ,CONNTYPE=LC,VENDORNAME=\\\"Opnext Inc.\\\",VENDORPN=\\\"TRF5012FS-LA000\\\",VENDOROUI=\\\"000B40\\\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=LBFJTU16081T08A07798"

"SFP-21-1-C10,EQPT:PEC=BP3AM1MI,CLEI=WMOMA0DAAA,SER=\\\"6332002139\\\",HWREV=\\\"D25\\\",MFGDAT=\\\"2007-01-24\\\",WAVELENGTH=1310,REACH=15,MINBR=50,MAXBR=3000,NOMBR=2500,ENCODING=SONET SCRAMBLED,CONNTYPE=LC,VENDORNAME=\\\"JDS UNIPHASE\\\",VENDORPN=\\\"CT2-MI1LBTD33C5\\\",VENDOROUI=\\\"00019C\\\",TXFAULTIMP=Y,TXDISABLEIMP=Y,LOSIMP=Y,DDIAGIMP=Y,MEDIA=OPTICAL,USI=LBFJTU160716332002139"

>

FLASHWAVE7120 00-12-24 14:30:54

M 100 COMPLD

"SI-21,EQPT:NAME=ESI,PEC=BT7A54BA,CLEI=WOCUAADBAA,FNAME=Extension Shelf
Interface,SER=\"SN00098350\",HWREV=\"8\",MFGDAT=\"2009-02-18\",MFGLOCN=BTI
Northside,TSTDAT=2009-02-18,TSTLOCN=BTI
Northside,USI=LBFJTU16092686ESI10198350"

"ESFP-21-1,EQPT:PEC=BP1A58DD,SER=\"633830198\",HWREV=\"D\",MFGDAT=
\"2006-12-04\",WAVELENGTH=0,MINBR=100,MAXBR=2525,NOMBR=2500,ENCODING=UNKNOWN,
CONNTYPE=COPPER_PIGTAIL,VENDORNAME=\"Molex Inc.\",VENDORPN=
\"73929-0027\",VENDOROUI=\"00093A
\",TXFAULTIMP=N,TXDISABLEIMP=N,LOSIMP=N,DDIAGIMP=N,MEDIA=ELECTRICAL,USI=LBFJT
U1606C633830198"

"CU-21,EQPT:NAME=CU,PEC=BT7A52DA,CLEI=WMPQAWD7AA,FNAME=Cooling Unit,SER=
\"SN00091234\",HWREV=\"9\",MFGDAT=\"2008-03-03\",MFGLOCN=BTI
Northside,TSTDAT=2008-03-03,TSTLOCN=BTI Northside,USI=N/A"

Parameters

| Parameter | Description | Range | Default |
|---------------|--|---|----------------|
| aid | The access identifier | See 2.17, "Inventory AID (aid)". | Not applicable |
| aidtype | The entity type that is targeted by the message | EQPT | |
| name | The abbreviated name of the equipment | See 2.18, "Inventory name (name)". | Not applicable |
| pec | The product equipment code | 1 to 11 alphanumeric characters | Not applicable |
| clei | The common language equipment identifier | Alphanumeric characters | Not applicable |
| fname | The full name | As provided in the manufacturing data | Not applicable |
| ser | The equipment serial number | Nine digits | Not applicable |
| | Note The serial number for the BTI 7060 cannot be displayed, since this shelf does not have an EEPROM. | Note Appears as \" <value> \" | |
| hwrev | The hardware revision number | Integer | Not applicable |
| | | Note Appears as \" <value> \" | |
| fw | Firmware version compatibility indicator | NATIVE: The firmware is compatible with the installed software version. <version tag>: The firmware is not compatible with the installed software, and needs to be upgraded. Note The actual version tag is reported when the reported version is not "NATIVE." | Not applicable |
| mfgdat | The manufacture date expressed as year-month-day | YY-MM-DD | Date |
| | | Note Appears as \" mfgdat \" | |
| mfglocn | The manufacture location | Alphanumeric characters | Not applicable |
| tstdat | The test date expressed as year-month-day | YY-MM-DD | Date |
| tstlocn | The test location | Alphanumeric characters | Not applicable |
| wavelength | The wavelength of the transceiver | 850 to 1650 | Not applicable |
| wavelengthmin | The minimum wavelength supported, represented in nm with 0.01 nm resolution | 1529.55 | Not applicable |
| | Note This parameter is supported by only a tunable XFP. | | |

| Parameter | Description | Range | Default |
|-------------------|--|---|----------------|
| wavelengthmax | The maximum wavelength supported, represented in nm with 0.01 nm resolution Note This parameter is supported by only a tunable XFP. | 1560.61 | Not applicable |
| wavelengthspacing | The grid spacing in GHz (100GHz, 50GHz) Note This parameter is supported by only a tunable XFP only. | 50GHz 100GHz | Not applicable |
| reach | The reach of the SFP Note This parameter is supported by SFPs only. | Integer | Not applicable |
| minbr | The minimum bit rate of the SFP | Integer | Not applicable |
| maxbr | The maximum bit rate of the SFP | Integer | Not applicable |
| nombr | The nominal bit rate of the SFP Note This parameter is supported by SFPs only. | integer Integer | Not applicable |
| encoding | The encoding type | 4B5B 8B10B MANCHESTER NRZ SONET_SCAMBLED UNKNOWN | Not applicable |
| conntype | The connector type | LC | Not applicable |
| vendorname | The vendor name | String Note Appears as \" vendorname \" | Not applicable |
| vendorpn | The vendor part number | String Note Appears as \" vendorpn \" | Not applicable |
| vendoroui | The vendor organizational unique identifier | String Note Appears as \" vendoroui \" | Not applicable |
| txfaultimp | The transceiver fault implemented flag | Y N | Not applicable |
| txdisableimp | The transceiver disable implemented flag | Y N | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|----------------------------------|----------------|
| losimp | The loss of signal implemented flag | Y N | Not applicable |
| ddiagimp | The digital diagnostics implemented flag | Y N | Not applicable |
| media | The type of connector used by the transceiver | ELECTRICAL OPTICAL UNKNOWN | UNKNOWN |
| usi | The unique serial identifier | String | Not applicable |
| tempht | Circuit pack high temperature threshold in degrees Celcius | 0 to 99 | Not applicable |
| temphts | Circuit pack shutdown high temperature shutdown threshold in degrees Celcius | 0 to 99 | Not applicable |

RTRV-IP

The RTRV-IP command retrieves the IP address information for IP interfaces on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-IP:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <aid>:[IPADDR=<ipaddr>],[IPMASK=<ipmask>]>],[IPBCST=<ipbcst>],
[TYPE=<type>],[UNMBRD=<unmbrd>],[SPEED=<speed>],[DUPLEX=<duplex>],
[MEDIARATE=<mediarate>],[MTU=<mtu>],[MACADDR=<macaddr>],[C1=<custom1>]:
[<pst>],[<sst>],[PORTSTATE=<portstate>]" cr lf;
```

Example command and response

```
RTRV-IP:NE-117::100::;
```

```
NE-117 04-02-02 12:39:57
M 100 COMPLD
"IP-1-5-1:IPADDR=127.0.0.1,IPMASK=255.0.0.0,UNMBRD=N:
OOS-AU,AINS&UEQ&SGEO,,PORTSTATE=DISABLED"

"IP-CRAFT:IPADDR=192.168.17.1,IPMASK=255.255.255.0,,:,"

"IP-1-5-2:IPADDR=40.1.1.1,IPMASK=255.255.255.0,IPBCST=40.1.1.255,
TYPE=ETHERNET,UNMBRD=N,SPEED=100,DUPLEX=FULL,MEDIARATE=100FD,MTU=1500,MACADDR
=0010ec4046f7,:IS-NR,,PORTSTATE=FORWARDING"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|--|---------|
| aid | The access identifier | ALL ENET-(1,2) (management LAN) IP-NMS (management LAN) IP-CRAFT (craft LAN) IP-1-1-(1-2) (OSC ports on SCP) | ALL |

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| | | IP-1-5-(1,2) (OSC ports on SCP) | |
| ipaddr | The IP address | Four integers between 0 and 255 separated by periods UNASSIGNED | Not applicable |
| ipmask | The IP mask | Four integers between 0 and 255 separated by periods | Not applicable |
| ipbcst | The IP broadcast | Four integers between 0 and 255 separated by periods | Not applicable |
| type | The interface type | ETHERNET LOGICAL OPTICAL | Not applicable |
| unmbrd | The unnumbered indicator | N | N |
| speed | The interface speed in Mb/s | 0 10 100 | Not applicable |
| duplex | The duplex mode | HALF FULL | Not applicable |
| mediarate | The Ethernet speed and duplex rate in Mbps | See 2.22, "Media rate (Mediarate)" . | Not applicable |
| mtu | The MTU size | Integer | Not applicable |
| macaddr | The MAC address expressed as 00-00-00-00-00-00 | Integers | Not applicable |
| C1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)" . | Not applicable |
| portstate | The state of the spanning tree protocol (STP) | BLOCKING DISABLED FORWARDING LEARNING | Not applicable |

RTRV-LAPD

The RTRV-LAPD command retrieves the LAPD parameters for OSI links. The LAPD instance is automatically created with the ENT-ODCC or ENT-GCC0 commands. To edit LAPD parameters use the ED-LAPD command.

Although visible to the user, this command is not supported by this version of the product.



RTRV-LOG

The RTRV-LOG command retrieves event logs for a specified system event category.

Note To interrupt and stop the RTRV-LOG output while in progress, type “q” and the output quits. Depending on the system connection speed, up to 60 log entries can still be output after pressing “q”.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-LOG:[TID]:[<lognm>]:[CTAG]::[<stalogid>],[<stplogid>],[<stadat>],
[<statm>],[<stpdatt>],[<stptm>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<retrieved_data> cr lf
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| lognm | The log category name. See the <i>BTI 7000 Series Operations Solutions Guide</i> for a description of these categories. | ALL ALM CMD DBCHG EVT RTRV SECU | ALL |
| stalogid | The start log identifier of the first log to retrieve | 1 to 4294967295 | Not applicable |
| stplogid | The stop log identifier of the last log to retrieve | 1 to 4294967295 | Not applicable |
| stadat | The start date of the log category to retrieve | YYYY-MM-DD Note A null string results in all logs being retrieved. | 00-00-00 |
| statm | The start time of the log category to retrieve | HH-MM-SS Note A null string results in all logs being retrieved. | 00-00-00 |
| stpdatt | The stop date of the log category to retrieve | YYYY-MM-DD | current date |

| Parameter | Description | Range | Default |
|-----------|---|---|----------|
| | | Note A null string results in all logs being retrieved. | |
| stptm | The stop time of the log category to retrieve | HH-MM-SS | 23-59-59 |
| | | Note A null string results in all logs being retrieved. | |

Note The range of logs retrieved can be selectively identified through the use of the filter parameters. For example, for a range of log identifiers, use `stalogid` and `stplogid`. For a range of logs by date and time, use any or all of `stadat`, `statm`, `stpdad`, and `stptm` with the following conditions: if `statm` is specified, `stadat` must also be specified; if `stptm` is specified, `stpdad` must also be specified

Example command and response

```
RTRV-LOG:BTI7000:alm:100::,,,,;
```

```

    BTI7000 02-11-05 15:00:04
M  100 RTRV
    /*
    [BTI7000] [REPT^ALM^EQPT] [02417-00001] [2002-11-05] [15:00:00]
" SLOT-1-4,MJ,REPLUNITMISS,NSA,2002-11-05,15-00-04,,,,,\"Equipment missing.
\",,,,, "
    [BTI7000] [REPT^ALM^EQPT] [02420-00002] [2002-11-05] [15:00:00]
" SLOT-1-4,CL,REPLUNITMISS,NSA,2002-11-05,15-00-00,,,,,\"Clear equipment
missing.\",,,,, "
    [BTI7000] [REPT^ALM^EQPT] [02422-00003] [2002-11-05] [15:00:01]
" CU-1,MJ,REPLUNITMISS,NSA,2002-11-05,15-00-00,,,,,\"Cooling Unit missing.
\",,,,, "
    [BTI7000] [REPT^ALM^EQPT] [02425-00004] [2002-11-05] [15:00:00]
" CU-1,MJ,REPLUNITMISS,NSA,2002-11-05,15-00-04,,,,,\"Clear Cooling Unit
missing.\",,,,, "
    */
>
    BTI7000 02-11-05 15:00:00
M  100 COMPLD
;
```

RTRV-NETYPE

The RTRV-NETYPE command retrieves information about the type of the network element. The operator does not need to be logged in to the BTI 7000 Series for this command to function.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-NETYPE:[TID]::[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<vendor>,<model>,<netype>,<swversion>" cr lf
;
```

Example command and response

```
RTRV-NETYPE:BTI7000::100::;

BTI7000 06-01-27 10:26:49
M 100 COMPLD
"BTI.,BTI 7060,WDM,7.3.0"
;
```

Parameters

| Parameter | Description | Range | Default |
|------------------|---|--|----------------|
| vendor | The name of the vendor | String | Not applicable |
| model | The model of the equipment | String | Not applicable |
| netype | The network element type | WDM (Wavelength Division Multiplexing) | WDM |
| swversion | The product release number of the active software load in the format "a.b.c", where a is the major release designation, and b and c are the release update designations | a.b.c | Not applicable |

RTRV-NGBR

The RTRV-NGBR command retrieves the IP address of a Network Element's neighbor.

Note The RTRV-NGBR command does not return any rows at start up; that is, it returns an empty table when the database is empty.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-NGBR:[TID]:[<aid>]:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^":KEYWORD=<ipaddr>" cr lf
;
```

Example command and response

```
RTRV-NGBR:BTI7000::100;
```

```
BTI7000 04-01-05 10:20:40
M 100 COMPLD "":IPADDRW=10.1.1.2" "":IPADDRE=10.1.1.3"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The unique keyword representing the neighbor | ALL 1 to 32 alphanumeric characters | Not applicable |
| KEYWORD | The unique keyword representing the neighbor | ALL 1 to 32 alphanumeric characters | Not applicable |
| ipaddr | The neighbor's IP address | String | Not applicable |

RTRV-NLP

The RTRV-NLP command shows the configuration for the OSI Network Layer Protocol. This command shows both the active values and the inactive values.

Although it is visible to the user, this command is not supported by this version of the product.



RTRV-NLP-CKT

The RTRV-NLP-CKT command shows LAPD (Network Layer Protocol, for OSI) circuit states. Although visible to the user, this command is not supported by this version of the product.



RTRV-NLP-NBR

The RTRV-NLP-NBR command shows IS-IS (routing for OSI) neighbours.

Although it is visible to the user, this command is not supported by this version of the product.



RTRV-NTP

The RTRV-NTP command retrieves the current NTP status and configuration.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-NTP:[TID]::[CTAG];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"POLLPERIOD=<01-00>
"SYNCSTATE=<syncstate>"STRATUM=<stratum>"REFIPADDR=<refipaddr>;
```

Example command and response

```
RTRV-NTP:BTI7000::100;
```

```
BTI7000 07-09-21 10:28:29
M 100 COMPLD
" POLLPERIOD=12-12, SYNCSTATE=Y, STRATUM=3, REFIPADDR=10.4.0.50 "
;
```

Parameters

| Parameter | Description | Range | Default |
|------------------|--|----------------------------------|----------------|
| pollperiod | The polling interval for receiving time updates | HH-MM | 01-00 |
| syncstate | The synchronization status, indicating whether the client is currently being updated by the NTP server | Y N | Not applicable |
| stratum | The stratum value of the reference clock source used by the NTP server | 1 to 16 | Not applicable |
| refipaddr | The IP address of the NTP server from which the reference clock is being derived | IP address of up to five servers | Not applicable |

RTRV-NTPASSOC

The RTRV-NTPASSOC command retrieves the IP addresses of all NTP time servers associated with the NTP client.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-NTPASSOC:[TID]::[CTAG];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"ASSOCIPADDRPRI=<associpaddr>;
```

Example command and response

```
RTRV-NTPASSOC:BTI7000::100;
```

```
BTI7000 07-09-21 10:28:29
M 100 COMPLD
"ASSOCIPADDR=192.25.6.14"
;
```

Parameters

| Parameter | Description | Range | Default |
|-------------|---|---|----------------|
| associpaddr | The IP address of the associated NTP server | A maximum of five NTP servers can be associated | Not applicable |

RTRV-OA

The RTRV-OA command retrieves the parameters of an optical amplifier, including the operational status and state.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OA:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <aid>:[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],[GRID=<grid>],
[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[LASERSTATUS=<laserstatus>],[OAMDE=<oamde>],[GAIN=<gain>],[PWR=<pwr>],
[TLTCOM=<tltcom>],[CONFIG=<config>],[CHANNEL=<channel>],[CTEMP-
HT=<ctempht>],
[CTEMP-HTS=<ctemphts>],[LTEMP-LTS=<ltemphts>],[LTEMP-HTS=<ltemphts>],
[L1CURCAL=<l1curcal>],[L2CURCAL=<l2curcal>],[OPR-LT=<oprlt>],
[OPR-HT=<oprht>],[OPT-LT=<optlt>],[OPT-HT=<optht>],[OBR-HTS=<obrhts>],
[SSIOPR-HT=<ssioprht>],[SSIOPR-LT=<ssioprlt>],[MSLOSS-HT=<mslossht>],[FSOOPT-
HT=<fsooptht>],[FSOOPT-LT=<fsooptlt>],[TILTMARGIN-MAX=<tiltmarmax>],
[TILTMARGIN-MIN=<tiltmarmin>],[GAINMARGIN-MAX=<gainmarmax>],[GAINMARGIN-
MIN=<gainmarmin>],[MONPORTLOSS=<monportloss>],[OASTATUS=<oastatus>],
[AINSTMR=<ainstmr>],[ACTAINSTMR=<actainstmr>],[REMOTEID=<remoteid>]: [<pst>],
[<sst>]" cr lf
or
^^^<comment> cr lf
;
```

Example command and response

```
RTRV-OA:BTI7000:ALL:100::;
```

```
BTI7000 03-01-29 09:19:17
M 100 COMPLD
"OLAM-1-2-1:LASERSTATUS=ON,OAMDE=COGAIN,GAIN=22.0,PWR=-5.0,
TLTCOM=0.0,CTEMP-HT=60,CTEMP-HTS=75,LTEMP-LTS=16,LTEMPHTS=34,
PL1CURCAL=310.8,PL2CURCAL=303.0,OPR-LT=-29.0,OPR-HT=-4.0,SSIOPR-HT=17.0, OPT-
LT=-6.0,OPT-HT=19.0,OBR-HTS=-4.0,MSLOSS-HT=10.0,OASTATUS=COGAIN:
IS-NR,"
;
```

If no amplifiers exist, the system response is as follows:

```
BTI7000 04-03-09 15:58:26
M 100 COMPLD
/* No amplifiers present */
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | Not applicable |
| id1 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the amplifier | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the amplifier | DSF NDSF (SMF-28) NZDSF | Not applicable |
| grid | ITU-T wavelength grid numbers | 50 GHz 100 GHz 200 GHz | Not applicable |
| chnls | The number of DWDM channels carried | OBA, OLA, OLAM, OPA: 0 to 40 | Not applicable |
| | Note Applies to DWDM amplifiers only | LGA, MGA, MGM: 0 to 96 | Not applicable |

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| C1, C2, C3 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| oamde | The optical amplifier mode | COGAIN (constant gain) COPWR (constant power) | Not applicable |
| gain | The gain level | See 2.14, "Gain level (gain)". | |
| pwr | The power level | See 2.38, "Power level (pwr) - output". | |
| channel | The channel wavelength | 1530.33 to 1561.42 | Not applicable |
| | Note Applies to SBA and SPA amplifiers only | | |
| tlcom | The tilt compensation | OLA, OLAM, LGA, MGA, MGM: -3.0 to 3.0 | 0.0 |
| ctempht | The case temperature high threshold | 45°C to 75°C | 60°C |
| oprlt | The optical power received low threshold | See 2.30, "Optical power received low threshold (oprlt)". | |
| oprht | The optical power received high threshold | See 2.29, "Optical power received high threshold (oprht)". | |
| optlt | The optical power transmitted low threshold | See 2.32, "Optical power transmitted low threshold (optlt)". | |
| optht | The optical power transmitted high threshold | See 2.31, "Optical power transmitted high threshold (optht)". | |
| ssioprht | The second stage input optical power received high threshold | OLAM: -16 to 7 MGM: -27 to 20 | 5.5 20 |
| mslossht | The mid-stage loss high threshold | OLAM: 5 to 15 MGM: 5 to 18 | 15 16 |
| ssioprlt | The second stage input optical power received low threshold | MGM: -30 to 17 | -30 |
| fsooptht | The first stage output optical power transmitted high threshold | MGM: -7 to 20 | 20 |
| fsooptlt | The first stage output optical power transmitted low threshold | MGM: -10 to 15 | 15 |
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | 08-00 |
| cmdmde | The command mode (applies to ED-OA command) | NORM FRCD | NORM |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|---|----------------------|
| laserstatus | The laser status | ON OFF | Not applicable |
| ctemphts | The case temperature high threshold shutdown | 75°C | 75°C |
| ltempfts | The laser temperature low threshold shutdown | 16°C | 16°C |
| ltemphts | The laser temperature high threshold shutdown | 34°C | 34°C |
| obrhts | The optical back reflection high threshold shutdown | Not applicable | Depends on amplifier |
| l1curcal | The laser current 1 calibration | Not applicable | Not applicable |
| l2curcal | The laser current 2 calibration | Not applicable | Not applicable |
| tiltmarmax | The maximum tilt margin. Under certain gain settings, the amplifier may not be able to achieve the configured tilt setting. The maximum tilt margin reports the highest possible tilt compensation that can be achieved. | Not applicable | Not applicable |
| tiltmarmin | The minimum tilt margin. Under certain gain settings, the amplifier may not be able to achieve the configured tilt setting. The minimum tilt margin reports the lowest possible tilt compensation that can be achieved. | Not applicable | Not applicable |
| gainmarmax | The maximum gain margin. Under certain input power levels, the amplifier may not be able to achieve the configured gain setting. The maximum gain margin reports the highest possible gain that can be achieved. | Not applicable | Not applicable |
| gainmarmin | The minimum gain margin. Under certain input power levels, the amplifier may not be able to achieve the configured gain setting. The minimum gain margin reports the lowest possible gain that can be achieved. | Not applicable | Not applicable |
| monportloss | The monitor port loss. The monitor port is a passive tap at the output of the amplifier that allows the operator to connect external instruments for power measurements. In order to calibrate these instruments, the operator needs to take the monitor port loss into consideration. | Not applicable | Not applicable |
| oastatus | The status of the optical amplifier | COGAIN (constant gain mode) COPWR (constant power mode) EYESAFE (eyesafe shutdown mode) NONE | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-------------|--------------------------|---------|
| | | SHUTDOWN (shutdown mode) | |

RTRV-OC3

The RTRV-OC3 command retrieves provisioning and state information for an OC-3 port of an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OC3:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],
,[AINSTMR=<ainstmr>],[ACTAINSTMR=<actainstmr>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-OC3:BTI7000::100::;
```

```
BTI7000 14-01-22 15:50:47
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C4:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=1.0,OPRLT=-20.0,OPTHT=-1.9,OPTLT=-11.7,WAVELENGTH=850,AINSTMR=08-00,LASERCTRL=AUTO:OOS-AU,AINS&FLT"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|---------------------|---|---|----------------|
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparenc y | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) | NO |
| lowpassfilter | An input signal filter used to support interoperability with only Juniper equipment model ERX-1440. Note Low-pass filtering is supported only on OC3, and configured only on ports C1, C2, and C3. | ON OFF Note LOWPASSFILTER cannot be changed when the client is connected, in loopback, and when the client is not in a maintenance state (OOS-MA). The CMDMDE=FRCD option cannot be used. | OFF |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|------------------------------|
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)" . | Not applicable |

RTRV-OC12

The RTRV-OC12 command retrieves provisioning and state information for an OC-12 port of an 8-Port or 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

| Release | Modification |
|---------|--|
| 7.3.1 | Added the parameter TRANSPARENCYCHANNEL. |

Input syntax

```
RTRV-OC12:[TID]:[<aid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-OC12:BTI7000::100::;
```

```
BTI7000 14-01-22 15:53:01
M 100 COMPLD
"MXP-1-1-
C1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=0.6,OPRLT=-23.9,OPTHT=0.9
,OPTLT=-13.4,WAVELENGTH=1310,DCCTRANSPARENCY=NO,TRANSPARENCYCHANNEL=1,AINSTMR
=08-00,LASERCTRL=AUTO:OOS-AU,AINS&FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |

| Parameter | Description | Range | Default |
|---------------------|--|--|----------------|
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) | NO |
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated | YES (handled transparently) NO (terminated and regenerated) | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 12 | 1 |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |

| Parameter | Description | Range | Default |
|------------|---|--|------------------------------|
| actainstmr | The active auto in-service timer | String | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

RTRV-OC48

The RTRV-OC48 command retrieves provisioning and state information for an OC-48 port on a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OC48:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phyppmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example commands and responses

```
RTRV-OC48:BTI7000::100::;
```

```
BTI7000 07-08-13 14:34:15
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=4.0,OPRLT=-22.0,OPTHT=0.0
,OPTLT=-5.0,WAVELENGTH=1310,TOHTRANSPARENCY=NO,DCCTRANSPARENCY=NO,TRANSPARENC
YCHANNEL=1,AINSTMR=08-00,:OOS-AU,AINS&FLT"
;
```

```
RTRV-OC48:BTI7000::100::;
```

```
BTI7000 14-01-22 11:51:26
```

```
M 100 COMPLD
```

```
"MXP-1-3-
```

```
L1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=0.9,OPRLT=-19.9,OPTHT=-1.
9,OPTLT=-11.7,WAVELENGTH=850,AINSTMR=08-00,LINEMAPPING=OTU1,LASERCTRL=MANUAL_
ON:IS-NR,";
```


Parameters

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10^{-5} to 10^{-8} MXP10: 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |

| Parameter | Description | Range | Default |
|---------------------|--|--|------------------------------|
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated | YES (transported transparently) NO (terminated and regenerated) | NO |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| linemapping | The OTN configuration of the line port Note Applies only to 8-Port Multiprotocol Muxponders. | NONE (no OTN digital wrapper is added to the port) OTU1 (SONET into and OTU1 frame) SUBODU1-OTU1 (no SDH framing; four ODU1s into an OTU1 frame) | |
| dcctransparency | Specifies whether the Section DCC (SDCC), specifically the D1, D2, and D3 bytes, for the synchronous client is transparently transported | YES NO | NO |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 48 | 1 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, “Secondary state (sst)”. | Not applicable |

RTRV-OC192

The RTRV-OC192 command retrieves provisioning and state information for an OC-192 line side port of a 10-Port Multiprotocol Muxponder – SONET module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OC192:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[AINSTMR=<ainstmr>],[ACTAINSTMR=<actainstmr>],[LINEMAPPING=<linemapping>],
[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-OC192:BTI7000::100::;
```

```
BTI7000 14-01-22 15:48:30
M 100 COMPLD
"MXP-1-1-
L1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=0.9,OPRLT=-14.9,OPTHT=-0.
5,OPTLT=-6.5,WAVELENGTH=1310,AINSTMR=08-00,LINEMAPPING=OTU2,LASERCTRL=AUTO:OO
S-AU,FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|----------------|
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. | Not applicable |
| wavelength | The channel wavelength in nm | For nontunable XFPs: 850 to 1650 For tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|--|---|
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an OC-192 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> <p>Note</p> <p>LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS).</p> | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS: In-service</p> <p>OOS: Out-of-service</p> | <p>IS</p> <p>As per AUTOP parameter</p> |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-ODCC

The RTRV-ODCC command retrieves OSC Data Communication Channel (ODCC) provisioning and status information on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ODCC:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
"<aid>:::[<pst>][<stacktype>]"
```

Example command and response

```
RTRV-ODCC:BTI7000::100::;  
BTI7000 12-12-04 16:11:43  
M 100 COMPLD
```

```
"DLA-1-1-2:IP,ACTIVE,:IS"
```

```
"ROB-1-7-L1:IP,ACTIVE,:IS"
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the ODCC object. | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| stacktype | The protocol stack running on the ODCC. | IP (for DOL modules) | Not applicable |
| pst | The primary state of the ODCC. | IS: In Service OOS: Out of Service | Not applicable |

RTRV-OL-EQPT

The RTRV-OL-EQPT command retrieves provisioned DOL equipment assignments.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OL-EQPT:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
"<aid>:<Degree>"
```

Example command and response

```
RTRV-OL-EQPT:BTI7000:DCM-11-4:100::;  
BTI7000 11-10-19 12:10:23  
M 100 COMPLD  
"DCM-11-4:1-1"  
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the DOL equipment | AID of a ROB, DCM, 8-Channel, or 40-Channel Mux/Demux. See 2.2, " AID type (aidtype) (for DOL) ". | Not applicable |
| degree | The DOL degree to which the module is assigned. | See 2.2, " AID type (aidtype) (for DOL) ". | Not applicable |

RTRV-OL-GROUP

The RTRV-OL-GROUP command retrieves provisioned DOL nodal groups.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OL-GROUP:[<tid>]:[<aid>]:[<ctag>;
```

Message syntax

```
"<aid>:<type>:[ID=<id>],[C1=<custom1>],  
[C2=<custom2>],[C3=<custom3>]"
```

Example command and response

```
RTRV-OL-GROUP:BTI7000:1:100::;  
BTI7000 11-10-19 14:29:42  
M 100 COMPLD  
"1:EQLZLINE:"  
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the DOL group | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| type | The group type | NOEQLZTERM EQLZTERM NOEQLZLINE EQLZLINE ROADM | Not applicable |
| id | The identifier of the group | 1 to 32 alphanumeric characters | Not applicable |
| custom(n) | The custom fields for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |

RTRV-OL-OSC

The RTRV-OL-OSC command retrieves provisioning and status information for OSC facilities on DOL OSC modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OL-OSC:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
"<aid>::[<ID=<id>],[C1=<custom1>],[C2=<custom2>],
[C3=<custom3>],[EXPFESID=<expfesid>],
[EXPFEIP=<expfeip>],[EXPFEGRP=<expfegrp>],
[EXPFEDEGR=<expfedegr>],[FESID=<fesid>],
[FEIP=<feip>],[FEGRP=<fegrp>],[FEDEGR=<fedegr>],
[FEGRPTYPE=<fegrptype>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[FEIMMON=<feimmon>]:
[<pst>],[<sst>]"
```

Example command and response

```
RTRV-OL-OSC:BTI7000::100::;
      BTI7000 11-10-19 11:52:12
M  100 COMPLD
      "ROB-1-3-
L1::FEIMMON=OFF,EXPFEIP=0.0.0.0,EXPFEGRP=0,EXPFEDEGR=0,FESID=S2N2,FE
IP=10.1.103.3,FEGRP=1,FEDEGR=1,FEGRPTYPE=NOEQLZLINE,AINSTMR=08-00,:IS-NR,"
      "ROB-11-1-
L1::FEIMMON=OFF,EXPFEIP=0.0.0.0,EXPFEGRP=0,EXPFEDEGR=0,FESID=S1N3,F
EIP=10.17.104.4,FEGRP=1,FEDEGR=2,FEGRPTYPE=ROADM,AINSTMR=08-00,:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the DOL OSC on a ROB or DLA module | See 2.2, “ AID type (aidtype) (for DOL)”. | Not applicable |
| id | The identifier of the OSC object | 1 to 32 alphanumeric characters | Not applicable |
| custom(n) | The custom fields for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| expfesid | The expected far end node System Identifier | 1 to 255 alphanumeric characters | Not applicable |
| expfeip | The expected NMS IP address of the far-end node | IP address | Not applicable |
| expfegrp | The expected DOL group number on the far-end node to which the OSC span interfaces | 0 to 255 | Not applicable |
| expfedegr | The expected DOL degree number within the identified group on the far-end node to which the OSC span interfaces | 0 to 4 | Not applicable |
| feimmon | The monitoring state for the Far-end Node ID Mismatch alarm | ON OFF | Not applicable |
| fesid | The actual far-end node System Identifier | 0 to 20 alphanumeric characters Note If unknown, an empty string is reported. | Not applicable |
| feip | The actual NMS IP address of the far-end node | IP address Note If unknown, 0.0.0.0 is reported. | Not applicable |
| fegrp | The actual DOL group number on the far-end node to which the OSC span interfaces | 0 to 255 Note If unknown, 0 is reported. | Not applicable |
| fedegr | The actual DOL degree number within the identified group on the far-end node to which the OSC span interfaces | 0 to 4 Note If unknown, 0 is reported. | Not applicable |
| fegrptype | The group type | NONE (The far-end node is not in the DOL group, or the group type is indeterminate.) NOEQLZTERM EQLZTERM NOEQLZLINE EQLZLINE ROADM | Not applicable |
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)" . | IS |
| sst | The secondary state of the equipment | AINS FLT MT SGEP | Not applicable |

RTRV-OL-PORT

The RTRV-OL-PORT command retrieves provisioning and status information for ports on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OL-PORT:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
"<aid>::[ID=<id>],[C1=<custom1>],[C2=<custom2>],  
[C3=<custom3>],[DWDMTYPE=<dwdmtype>],[GRID=<grid>],  
[WAVELENGTH=<wavelength>],[FREQUENCY=<frequency>],[REMOTEID=<remoteid>]:  
[<pst>],[<sst>]"
```

Example command and response

```
RTRV-OL-PORT:BTI7000::100::;
```

```
BTI7000 11-10-19 12:22:57
```

```
M 100 COMPLD
```

```
"ROB-1-3-L1::DWDMTYPE=NATIVE,GRID=100GHZ,:IS-NR,"
```

```
"ROB-1-3-C2::DWDMTYPE=NATIVE,GRID=100GHZ,:IS-NR,"
```

```
"ROB-1-3-DCM:::IS-NR,"
```

```
"ROB-11-1-L1::DWDMTYPE=NATIVE,GRID=100GHZ,:IS-NR,"
```

```
"ROB-11-1-C2::DWDMTYPE=NATIVE,GRID=100GHZ,:IS-NR,"
```

```
"ROB-11-1-DCM:::IS-NR,"
```

```
"DCM-11-3-DCM:::,"
```

```
"DCM-11-3-EX:::,"
```

```
"DCM-11-4-DCM:::,"
```

```
"DCM-11-4-EX:::,"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier of the DOL optical port | See 2.2, “AID type (aidtype) (for DOL)”. | Not applicable |
| id | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom(n) | The custom fields for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| dwdmtype | The port interconnected to the DOL DWDM or the non-DOL DWDM | NATIVE (DOL DWDM) ALIEN (non-DOL DWDM) | Not applicable |
| grid | The DWDM grid spacing. | 100 GHz | |
| wavelength | The channel wavelength Note Supported only for channel ports on Mux/Demux modules. | A value (up to two decimal places) in nm | Not applicable |
| frequency | The channel frequency | A value (up to two decimal places) in THz | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| pst | The primary state of the equipment | See 2.39, “Primary state (pst)”. | IS: In-service |
| sst | The secondary state of the equipment | AINS FLT MT SGEP | Not applicable |

RTRV-OSPF

The RTRV-OSPF command retrieves the attributes of a specified Open Shortest-Path First (OSPF) process, or all OSPF processes, on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OSPF:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[RTRID=<rtrid>],[REDIST=<redist>],[ABR=<abr>], [VERSION=<version>]:
[<pst>],[<sst>]" cr lf
;
```

Example command and response

```
RTRV-OSPF:BTI7000::100::;
```

```
BTI7000 04-01-05 13:29:24
M 100 COMPLD
"OSPF-1-3:RTRID=127.0.0.1,REDIST=NONE,ABR=N,VERSION=OSPFV2:IS-NR"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20) | Not applicable |
| rtrid | The router identifier IP address | Four integers between 0 and 255 separated by periods | Not applicable |
| | | Note Specify the value of the highest provisioned IP interface address on the OSC. | |
| redist | The route redistribution indicator Note The routes are redistributed as external to the autonomous system. | See 2.35, "OSPF redistribution type (OSPFRedist)" . | NONE |
| abr | The area border router indicator | Y N | N |
| version | The OSPF version. | OSPFV2 | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)" . | Not applicable |

RTRV-OSPF-IF

The RTRV-OSPF-IF command retrieves the attributes of provisioned Open Shortest-Path First (OSPF) interfaces.

Note The system returns incorrect information when the RTRV-OSPF-IF command is executed without using the AID parameter. Although modules are present, the system incorrectly indicates that there are no modules present.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OSPF-IF:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[AREAID=<areaid>],[UNMBRD=<unmbrd>],[PRIORITY=<priority>],
    [HELLOINT=<helloint>],[DEADINT=<deadint>],[RETRINT=<retrint>],
    [POLLINT=<pollint>],[TRSTDEL=<trstdel>],[COST=<cost>],[TYPE=<type>],
    [STATE=<state>],[DR=<dr>],[BDR=<bdr>]:[<pst>],[<sst>]"
;
where
```

Example command and response

```
RTRV-OSPF-IF:BTI7000::100::;
```

```
BTI7000 04-01-05 14:15:08
M 100 COMPLD
"OSPF-1-3-1:AREAID=0.0.0.0,PRIORITY=1,HELLOINT=10,DEADINT=40,RETRINT=5,
TRSTDEL=1,:OOS-AU,UEQ&SGEO"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---------------------------|--|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20)-(0-3) | Not applicable |
| areaid | The area identifier | Four integers between 0 and 255 separated by periods | Not applicable |
| unmbrd | The unnumbered identifier | Y N | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| priority | The priority of this interface | 0 to 255 | Not applicable |
| helloint | The hello interval | 1 to 65535 | Not applicable |
| deadint | The dead interval | 1 to 65535 | Not applicable |
| retrint | The retransmission interval | 1 to 3600 | Not applicable |
| retrint | The retransmission interval | 0 to 3600 | Not applicable |
| trstdel | The transit delay | 1 to 3600 | Not applicable |
| cost | The cost | 1 to 65535 | Not applicable |
| type | The type of network to which the OSPF interface connects | See 2.34, "OSPF interface type (OSPFIfType)" . | Not applicable |
| state | The state of the OSPF interface on this network | See 2.33, "OSPF interface state type (OSPFIfStateType)" . | Not applicable |
| dr | The designated router on the network | Integer from 0 to 65535 IP address | Not applicable |
| bdr | The backup designated router on the network | Integer from 0 to 65535 IP address | Not applicable |
| pst | The primary state of the equipment | IS OOS | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

RTRV-OSPF-LSDB

The RTRV-OSPF-LSDB command retrieves the link state advertisements (LSA) compiled in the link state databases of OSPF routers on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OSPF-LSDB:[TID]:[<aid>]:[CTAG]:;;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[AREAID=<areaid>],[TYPE=<type>],[LSID=<lsid>],[RTRID=<rtrid>],
[SEQN=<seqn>],[AGE=<age>],[CKSM=<cksm>]"
;
```

Example command and response

```
RTRV-OSPF-LSDB:NE-117::100::;

NE-117 04-02-02 12:44:30
M 100 COMPLD
"OSPF-1-6:AREAID=0.0.0.1,TYPE=ROUTER,LSID=0.0.0.116,RTRID=0.0.0.116,
SEQN=0x80000003,AGE=2594,CKSM=0x8f8c"
"OSPF-1-6:AREAID=0.0.0.1,TYPE=ROUTER,LSID=2.2.2.2,RTRID=2.2.2.2,
SEQN=0x80000004,AGE=1210,CKSM=0x9a7e"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier | OSPF-(1,11,21,31)-(1-20) | Not applicable |
| areaid | The identifier of the area to which the LSA applies | Integer from 0 to 65535 IP address | Not applicable |
| type | The LSA type | See 2.20, "Link state advertisement type (type)" . | Not applicable |
| lsid | The link state identifier | IP address | Not applicable |
| rtrid | The LSA originating router | IP address | Not applicable |
| seqn | The sequence number | 0x80000000 to 0xFFFFFFFF (32-bit signed integer value in HEX format) | Not applicable |
| age | The age in seconds | Positive integer | Not applicable |
| cksm | The checksum | 0x | Not applicable |

RTRV-OSPF-NGHBR

The RTRV-OSPF-NGHBR command retrieves the attributes of the OSPF neighbors of OSPF routers on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-OSPF-NGHBR:[TID]:[<aid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[RTRID=<rtrid>],[PRIORITY=<priority>],[STATE=<state>],
[IPADDR=<ipaddr>],[OPTIONS=<options>]"
;
where
```

Example command and response

```
RTRV-OSPF-NGHBR:BTI7000:OSPF-1-1:100::;

BTI7000 04-01-06 07:30:24
M 100 COMPLD
"OSPF-1-1:RTRID=2.2.2.2,PRIORITY=1,STATE=FULL,IPADDR=20.1.1.2,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | ALL OSPF-(1,11,21,31)-(1-20) | Not applicable |
| rtrid | The router identifier of the neighbor | Four integers between 0 and 255 separated by periods | Not applicable |
| priority | The neighbor priority on the network | 0 to 255 | Not applicable |
| state | The state of the relationship with this neighbor | See 2.27, "Neighbor state (state)" . | Not applicable |
| ipaddr | The IP address of the neighbor on the network | Four integers between 0 and 255 separated by periods | Not applicable |
| options | The OSPF options supported by the neighbor | Integer | Not applicable |

RTRV-PM-BRI

The RTRV-PM-BRI command retrieves the current or historical set of PMs associated with a Bit Rate Independent (BRI) client side port of an 8-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-BRI:[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],  
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf  
^^^" <aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<mont  
m>,<index>"
```

Example command and response

```
rtrv-pm-BRI:BTI7000:mxp-1-1-C1:100::,,,,,,1
```

```
BTI7000 13-02-25 15:14:22  
M 100 COMPLD  
"MXP-1-1-C1,BRI:LBC,12,CMPL,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPR,-6.0,CMPL,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPR-MIN,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPR-MAX,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPR-AVG,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPT,-6.1,CMPL,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPT-MIN,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPT-MAX,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:OPT-AVG,0.0,NA,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:TEMP,36.9,CMPL,NEND,,15-MIN,02-25,14-45-00,1"  
"MXP-1-1-C1,BRI:SUPPLY,3.3,CMPL,NEND,,15-MIN,02-25,14-45-00,1"
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| aidtype | The entity type specified by the message | BRI | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules". | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-EQPT

The RTRV-PM-EQPT command retrieves equipment PMs.

Equipment PMs include the current and historical temperature data for modules that are equipped with a temperature sensor.

Equipment PMs also include CPU and disk usage data on the following modules:

- SCP (all)
- PVX modules (all)
- ROADM-on-a-Blade (ROB) modules (all)
- Dual 10G Multiprotocol Transponder (BT7A49AA, BT7A49AA-I02)
- 10-Port Multiprotocol Muxponder (BT7A48AA/BA, BT7A48AA-I02/BA-I02)



Input syntax

```
RTRV-PM-EQPT:[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],  
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Response syntax

```
"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<dirn>,<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

This example shows the output for PM information for a module that is equipped with a temperature sensor:

```
BTI7000> RTRV-PM-EQPT:BTI7000:TPR-1-2:100  
  
BTI7000 16-09-18 03:39:55  
M 100 COMPLD  
"TPR-1-2,EQPT:TEMP,46.0,CMPL,NEND,,15-MIN,09-18,03-30-00,0"  
"TPR-1-2,EQPT:CPUUSG,3,PRTL,NEND,,15-MIN,09-18,03-30-00,0"  
"TPR-1-2,EQPT:CPUUSG-AVG,2,PRTL,NEND,,15-MIN,09-18,03-30-00,0"  
"TPR-1-2,EQPT:CPUUSG-MIN,2,PRTL,NEND,,15-MIN,09-18,03-30-00,0"  
"TPR-1-2,EQPT:CPUUSG-MAX,8,PRTL,NEND,,15-MIN,09-18,03-30-00,0"  
"TPR-1-2,EQPT:DISKUSG,30,CMPL,NEND,,15-MIN,09-18,03-39-55,0"  
;  
BTI7000>
```


Example module not supported

This example shows the error message when you try to retrieve the PMs for a module that is not equipped with a temperature sensor and that does not support CPU and disk PMs:

```
BTI7000> RTRV-PM-EQPT:BTI7000:WM-1-2:100:

      BTI7000 13-04-02 11:07:34
M  100 DENY
      SRQN
      /* Entity does not exist. Error #514. */
;
BTI7000>
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|--------------------------|
| aid | The access identifier. | SCP-1-(1,3,5) TPR-(1,11,21,31)-(1-20) MXP-(1,11,21,31)-(1-20) LGA-(1,11,21,31)-(1-20) MGA-(1,11,21,31)-(1-20) MGM-(1,11,21,31)-(1-20) PVX-(1,11,21,31)-(1,3,5...19) ROB-(1,11,21,31)-(1,3,5...19) | Not applicable |
| aidtype | The entity type specified by the message | EQPT | Not applicable |
| montype | The type of monitored parameter | See 2.25, "Monitored type (montype) for transceivers". | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-FC

The RTRV-PM-FC command retrieves the current or historical set of PMs associated with a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-FC::[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>,<index>;
```

Example command and response

```
RTRV-PM-FC:BTI7000:MXP-1-1-C2:100::,,,,,,,,;
```

```
BTI7000 07-07-29 11:01:47
```

```
M 100 COMPLD
```

```
"MXP-1-1-C2,FC:LBC,0,NA,NEND,,15-MIN,03-25,15-20-01,0"
"MXP-1-1-C2,FC:OPR,0.0,NA,NEND,,15-MIN,03-25,15-20-01,0"
"MXP-1-1-C2,FC:OPT,0.0,NA,NEND,,15-MIN,03-25,15-20-01,0"
"MXP-1-1-C2,FC:TEMP,0.0,NA,NEND,,15-MIN,03-25,15-20-01,0"
"MXP-1-1-C2,FC:SUPPLY,0.0,NA,NEND,,15-MIN,03-25,15-20-01,0"
"MXP-1-1-C2,FC:CV,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C2,FC:ES,300,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C2,FC:SES,300,PRTL,NEND,,15-MIN,03-25,15-15-00,0";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C10) | Not applicable |
| aidtype | The entity type specified by the message | FC | |
| montype | The type of monitored parameter | See 2.23, “ Monitored type (montype) for Muxponder modules ” and 2.25, “ Monitored type (montype) for transceivers ”. | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-GE

The RTRV-PM-GE command retrieves the current or historical set of PMs associated with a gigabit Ethernet (GE) client side port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-GE:[TID]:<aid>:[CTAG]:[<montype>],[<monlev>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

```
RTRV-PM-GE:BTI7000:MXP-1-6-C1:100::,,,,,,;
```

```
BTI7000 07-07-29 11:01:47
```

```
M 100 COMPLD
```

```
"MXP-1-1-C6,GE:LBC,0,NA,NEND,,15-MIN,03-25,15-20-20,0"
"MXP-1-1-C6,GE:OPR,0.0,NA,NEND,,15-MIN,03-25,15-20-20,0"
"MXP-1-1-C6,GE:OPT,0.0,NA,NEND,,15-MIN,03-25,15-20-20,0"
"MXP-1-1-C6,GE:TEMP,0.0,NA,NEND,,15-MIN,03-25,15-20-20,0"
"MXP-1-1-C6,GE:SUPPLY,0.0,NA,NEND,,15-MIN,03-25,15-20-20,0"
"MXP-1-1-C6,GE:CV,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C6,GE:ES,319,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C6,GE:SES,319,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| aidtype | The entity type specified by the message | GE | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules " and | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| | | 2.25, "Monitored type (montype) for transceivers" . | |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-OA

The RTRV-PM-OA command retrieves current or historical PMs associated with an optical amplifier.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-OA:[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>,<index>"
;
```

Example command and response

```
RTRV-PM-OA:BTI7000:OLAM-1-6-1:100::,,,,,,;
```

```
BTI7000 02-11-05 15:00:02
M 100 COMPLD
"OLAM-1-6-1,OA:CTEMP,29,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L1TEMP,24,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L2TEMP,24,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L1CUR,255.4,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L2CUR,121.6,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L1PWR,180.0,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:L2PWR,76.1,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:OPR,-11.5,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:OPT,14.7,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:OBR,-27.2,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
"OLAM1-6-1,OA:VOAATN,0.4,CMPL,NEND,,15-MIN,11-05,15-00-02,0"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the optical amplifier | OBA-(1,11,21,31)-(1-20)-1 OLA-(1,11,21,31)-(1-20)-1 OLAM-(1,11,21,31)-(1-20)-1 | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|--|--------------------------|
| | | OPA-(1,11,21,31)-(1-20)-1 SBA-(1,11,21,31)-(1-20)-1 SPA-(1,11,21,31)-(1-20)-1 LGA-(1,11,21,31)-(1-20)-1 MGA-(1,11,21,31)-(1-20)-1 MGM-(1,11,21,31)-(1-20)-1 | |
| aidtype | The entity type specified by the message | OA | |
| montype | The type monitoring of monitoring parameter | See 2.24, “Monitored type (montype) for Optical Amplifiers”. | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | Not applicable |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | OBA, OLA, OLAM, OPA, SBA, SPA: 15-MIN, 1-DAY LGA, MGA, MGM: 15-MIN, 1-DAY, 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-OCn

The RTRV-PM-OCn commands retrieve the current or historical set of PMs associated with a SONET port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------|---|
| RTRV-PM-OC3: | :[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],[<montm>],[<index>; |
| RTRV-PM-OC12: | |
| RTRV-PM-OC48: | |
| RTRV-PM-OC192: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,,<tmper>,<mondatt>,<montm>,<index>" ;
```

Example command and response

```
RTRV-PM-OC3:BTI7000:MXP-1-21-C1:100:,, , , , , , ;
```

```
BTI7000 07-08-15 20:06:00
```

```
M 100 COMPLD
```

```
"MXP-21-1-C1,OC3:OPR,0.0,NA,NEND,,15-MIN,03-25,16-46-01,0"
"MXP-21-1-C1,OC3:OPT,0.0,NA,NEND,,15-MIN,03-25,16-46-01,0"
"MXP-21-1-C1,OC3:LBC,0,NA,NEND,,15-MIN,03-25,16-46-01,0"
"MXP-21-1-C1,OC3:TEMP,0.0,NA,NEND,,15-MIN,03-25,16-46-01,0"
"MXP-21-1-C1,OC3:SUPPLY,0.0,NA,NEND,,15-MIN,03-25,16-46-01,0"
"MXP-21-1-C1,OC3:CVS,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:ESS,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:SESS,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:SEFS-S,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:CV-L,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:ES-L,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:SES-L,0,NA,NEND,,15-MIN,03-25,16-45-00,0"
"MXP-21-1-C1,OC3:UAS-L,0,NA,NEND,,15-MIN,03-25,16-45-00,0" ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|--------------------------|
| aid | The access identifier of the port | OC3/12 | Not applicable |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | OC48 | |
| | | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| aidtype | The entity type specified by the message | | OC3 |
| | | | OC12 |
| | | | OC48 |
| | | | OC192 |
| montype | The type of monitored parameter | See 2.23, “Monitored type (montype) for Muxponder modules ” and 2.25, “Monitored type (montype) for transceivers”. | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) | Not applicable |
| | | NA (not available) | |
| | | PRTL (partial) | |
| | | Note Applies only when TMPER = 15-MIN or 1-DAY. | |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN | 15-MIN |
| | | 1-DAY | |
| | | 1-UNT (untimed) | |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 | 0 |
| | | ALL (all available bins from 1 to 96) | |

RTRV-PM-OSC

The RTRV-PM-OSC command retrieves performance monitoring data collected for OSC facilities on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-OSC:[TID]:<aid>:[CTAG]:[<montype>],
[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],
[<montm>],[<index>];
```

Message syntax

```
"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,,
<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

```
RTRV-PM-OSC:BTI7000:rob-1-3-l1:100:,,,,,,,,;
      BTI7000 11-10-19 13:53:02
M 100 COMPLD
  "ROB-1-3-L1,OSC:OPR,-18.8,CMPL,NEND,,15-MIN,10-19,13-53-01,0"
  "ROB-1-3-L1,OSC:OPT,0.2,CMPL,NEND,,15-MIN,10-19,13-53-01,0"
  "ROB-1-3-L1,OSC:OBR,-28.7,CMPL,NEND,,15-MIN,10-19,13-53-01,0"
  "ROB-1-3-L1,OSC:CVS,0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
  "ROB-1-3-L1,OSC:ESS,0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
  "ROB-1-3-L1,OSC:SESS,0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
  "ROB-1-3-L1,OSC:SEFS-S,0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
  "ROB-1-3-L1,OSC:UAS-S,0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the OSC facility | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type specified by the message | OSC | |
| montype | The type of monitored parameter | OPR OPT OBR CVS ESS SESS SEFS-S | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| | | UAS-S | |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locl | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-PORT

The RTRV-PM-PORT command retrieves performance monitoring data collected for ports on a DOL module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-PORT:[TID]:<aid>:[CTAG]:[<montype>],
[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],
[<montm>],[<index>];
```

Message syntax

```
"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,,
<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

```
RTRV-PM-PORT:BTI7000:rob-1-3-l1:100::,,,,,,;
      BTI7000 11-10-19 13:55:47
M 100 COMPLD
"ROB-1-3-L1,PORT:OPR,-9.4,CMPL,NEND,,15-MIN,10-19,13-55-46,0"
"ROB-1-3-L1,PORT:OPR-MIN,-9.5,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPR-MAX,-8.8,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPR-AVG,-9.1,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPR-STDDEV,0.2,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPT,7.7,CMPL,NEND,,15-MIN,10-19,13-55-46,0"
"ROB-1-3-L1,PORT:OPT-MIN,7.0,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPT-MAX,8.2,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPT-AVG,7.6,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:OPT-STDDEV,0.4,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1,PORT:LOSS-RX,19.8,CMPL,NEND,,15-MIN,10-19,13-55-46,0"
"ROB-1-3-L1,PORT:LOSS-TX,19.5,CMPL,NEND,,15-MIN,10-19,13-55-46,0"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the optical port | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type specified by the message | PORT | |
| montype | The type of monitored parameter | OPR OPR-MIN OPR-MAX OPR-AVG | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| | | OPR-STDDEV OPT OPT-MIN OPT-MAX OPT-AVG OPT-STDDEV LOSS-RX LOSS-TX | |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-STMn

The RTRV-PM-STMn commands retrieve the current or historical set of PMs associated with an SDH port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|-----------------|---|
| RTRV-PM-STM1 : | :[TID]:<aid>:[CTAG]:[<montype>],[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],[<montm>],[<index>]; |
| RTRV-PM-STM4 : | |
| RTRV-PM-STM16 : | |
| RTRV-PM-STM64 : | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>,<index>" ;
```

Example command and response

```
RTRV-PM-STM1:BTI7000:MXP-1-1-C3:100::;
```

```
BTI7000 07-09-21 10:27:14
```

```
M 100 COMPLD
```

```
"MXP-1-1-C3,STM1:LBC,0,NA,NEND,,15-MIN,03-25,15-28-22,0"
"MXP-1-1-C3,STM1:OPR,0.0,NA,NEND,,15-MIN,03-25,15-28-22,0"
"MXP-1-1-C3,STM1:OPT,0.0,NA,NEND,,15-MIN,03-25,15-28-22,0"
"MXP-1-1-C3,STM1:TEMP,0.0,NA,NEND,,15-MIN,03-25,15-28-22,0"
"MXP-1-1-C3,STM1:SUPPLY,0.0,NA,NEND,,15-MIN,03-25,15-28-22,0"
"MXP-1-1-C3,STM1:RS-EB,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:RS-BBE,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:RS-ES,801,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:RS-SES,801,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:RS-OFS,801,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:MS-EB,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:MS-BBE,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:MS-ES,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:MS-SES,0,PRTL,NEND,,15-MIN,03-25,15-15-00,0"
"MXP-1-1-C3,STM1:MS-UAS,801,PRTL,NEND,,15-MIN,03-25,15-15-00,0" ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| aid | The access identifier of the port | STM1/4 | Not applicable |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | |
| | | STM16 | |
| | | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | |
| | | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| aidtype | The entity type specified by the message | STM1 | Not applicable |
| | | STM4 | |
| | | STM16 | |
| | | STM64 | |
| montype | The type of monitored parameter | See 2.23, “ Monitored type (montype) for Muxponder modules ” and 2.25, “ Monitored type (montype) for transceivers ”. | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) | Not applicable |
| | | NA (not available) | |
| | | PRTL (partial) | |
| | | Note Applies only when TPER = 15-MIN or 1-DAY. | |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 | 0 |
| | | ALL (all available bins from 1 to 96) | |

RTRV-PM-STSn/STSnC

The RTRV-PM-STSn/STSnC commands retrieve the current or historical set of PMs associated with an STSn path facility object of a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|------------------|--|
| RTRV-PM-STSn: | :[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],[<timper>],[<mondatt>],[<montm>],[<index>; |
| RTRV-PM-STSnC: | |
| RTRV-PM-STSn6C: | |
| RTRV-PM-STSn9C: | |
| RTRV-PM-STSn12C: | |
| RTRV-PM-STSn15C: | |
| RTRV-PM-STSn18C: | |
| RTRV-PM-STSn21C: | |
| RTRV-PM-STSn24C: | |
| RTRV-PM-STSn30C: | |
| RTRV-PM-STSn36C: | |
| RTRV-PM-STSn48C: | |
| RTRV-PM-STSn72C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<timper>,<mondatt>,<montm>,<index>" ;
```

Example command and response

```
RTRV-PM-STSn30C:BTI7000:MXP-21-1-L1-7:100::,,,,,,;
```

```
BTI7000 07-08-15 20:18:51
```

```
M 100 COMPLD
```

```
"MXP-21-1-L1-7,STSn30C:CVP,0,PRTL,NEND,,15-MIN,03-25,18-30-00,0"
"MXP-21-1-L1-7,STSn30C:ESP,0,PRTL,NEND,,15-MIN,03-25,18-30-00,0"
"MXP-21-1-L1-7,STSn30C:SESP,0,PRTL,NEND,,15-MIN,03-25,18-30-00,0"
"MXP-21-1-L1-7,STSn30C:UASP,170,PRTL,NEND,,15-MIN,03-25,18-30-00,0"
"MXP-21-1-L1-7,STSn30C:FC-P,1,PRTL,NEND,,15-MIN,03-25,18-30-00,0"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the port | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| aidtype | The entity type specified by the message | STS1 | |
| | | STS3C | |
| | | STS6C | |
| | | STS9C | |
| | | STS12C | |
| | | STS15C | |
| | | STS18C | |
| | | STS21C | |
| | | STS24C | |
| | | STS30C | |
| | | STS36C | |
| | | STS48C | |
| | | STS72C | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules " and 2.25, "Monitored type (montype) for transceivers". | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-VCn/VCnC

The RTRV-PM-VCn/VCnC commands retrieve the current or historical set of PMs associated with a VC-4 path facility object of an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|----------------|---|
| RTRV-PM-VC4: | :[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],[<montm>],[<index>; |
| RTRV-PM-VC2C: | |
| RTRV-PM-VC3C: | |
| RTRV-PM-VC4C: | |
| RTRV-PM-VC6C: | |
| RTRV-PM-VC5C: | |
| RTRV-PM-VC7C: | |
| RTRV-PM-VC8C: | |
| RTRV-PM-VC10C: | |
| RTRV-PM-VC12C: | |
| RTRV-PM-VC16C: | |
| RTRV-PM-VC24C: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

```
RTRV-PM-VC5C:BTI7000:MXP-1-1-L1-33:100::;
```

```
BTI7000 07-09-21 10:25:18
```

```
M 100 COMPLD
```

```
"MXP-1-1-L1-33,VC5C:HP-EB,0,NA,NEND,,15-MIN,03-25,16-00-00,0"
```

```
"MXP-1-1-L1-33,VC5C:HP-BBE,0,NA,NEND,,15-MIN,03-25,16-00-00,0"
```

```
"MXP-1-1-L1-33,VC5C:HP-ES,0,NA,NEND,,15-MIN,03-25,16-00-00,0"
```

```
"MXP-1-1-L1-33,VC5C:HP-SES,0,NA,NEND,,15-MIN,03-25,16-00-00,0"
```

```
"MXP-1-1-L1-33,VC5C:HP-UAS,0,NA,NEND,,15-MIN,03-25,16-00-00,0"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| aid | The access identifier of the port | See 2.42, "Source AID (src_aid), or Switchmate (swmate)". | Not applicable |
| aidtype | The entity type specified by the message | VC4 | Not applicable |
| | | VC2C | |
| | | VC3C | |
| | | VC4C | |
| | | VC5C | |
| | | VC6C | |
| | | VC7C | |
| | | VC8C | |
| | | VC10C | |
| | | VC12C | |
| | | VC16C | |
| | | VC24C | |
| montype | The type of monitored parameter | See 2.23, "Monitored type (montype) for Muxponder modules " and 2.25, "Monitored type (montype) for transceivers". | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-WCH

The RTRV-PM-WCH command retrieves the PMs associated with DOL wavelength channels.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-WCH:[TID]:<aid>:[CTAG]:[<montype>],
[<monlev>],[<locn>],[<dirn>],[<tmper>],[<mondatt>],
[<montm>],[<index>];
```

Message syntax

```
"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,,
<tmper>,<mondatt>,<montm>,<index>"
```

Example command and response

```
RTRV-PM-WCH:BTI7000:rob-1-3-l1-380:100::,,,,,,;
BTI7000 11-10-19 13:57:02
M 100 COMPLD
"ROB-1-3-L1-380,WCH:OPR,-99.9,CMPL,NEND,,15-MIN,10-19,13-57-02,0"
"ROB-1-3-L1-380,WCH:OPR-MIN,-99.9,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1-380,WCH:OPR-MAX,-19.6,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1-380,WCH:OPT,-0.6,CMPL,NEND,,15-MIN,10-19,13-57-02,0"
"ROB-1-3-L1-380,WCH:OPT-MIN,-0.7,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
"ROB-1-3-L1-380,WCH:OPT-MAX,-0.2,PRTL,NEND,,15-MIN,10-19,13-45-00,0"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the optical port | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type specified by the message | WCH | |
| montype | The type of monitored parameter | OPR OPR-MIN OPR-MAX OPT OPT-MIN OPT-MAX | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|---|--------------------------|
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (completed) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PM-XCVR

The RTRV-PM-XCVR command retrieves the PMs of a transceiver port.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PM-XCVR:[TID]:<aid>:[CTAG]::[<montype>],[<monlev>],[<locn>],[<dirn>],  
[<tmper>],[<mondatt>],[<montm>],[<index>];
```

Message syntax

```
cr lf lf  
^^^<sid>^<date>^<time> cr lf  
M^^<ctag>^COMPLD cr lf  
^^^"<aid>,<aidtype>:<montype>,<monval>,<vldty>,<locn>,<tmper>,<mondatt>,<montm>  
>,<index>"  
  cr lf  
;
```

Example command and response

```
RTRV-PM-XCVR:BTI7000:WR-1-1-1;
```

```
BTI7000 05-02-03 07:59:41  
M 100 COMPLD  
"WR-1-1-1,XCVR:TEMP,30.4,CMPL,NEND,,15-MIN,02-03,07-59-41,0"  
"WR-1-1-1,XCVR:SUPPLY,3.2,CMPL,NEND,,15-MIN,02-03,07-59-41,0"  
"WR-1-1-1,XCVR:LBC,21,CMPL,NEND,,15-MIN,02-03,07-59-41,0"  
"WR-1-1-1,XCVR:OPR,-17.5,CMPL,NEND,,15-MIN,02-03,07-59-41,0"  
"WR-1-1-1,XCVR:OPT,-0.5,CMPL,NEND,,15-MIN,02-03,07-59-41,0"  
;
```


Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|--------------------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| aidtype | The entity type specified by the message | XCVR | |
| montype | The type of monitored parameter | See 2.25, “ Monitored type (montype) for transceivers ” and 2.26, “ Monitored type (montype) values and threshold crossing alerts (TCA) for Transponder modules ”. | Not applicable |
| monlev | The monitoring level of the performance monitoring data | Not available in this release | Not applicable |
| monval | The value of the monitored parameter | Numerical value to one decimal place of accuracy for physical montypes; positive integer value for counters | Not applicable |
| vldty | The validity indicator specifying whether the information for the specified time period was accumulated over the entire time period or some portion thereof | CMPL (complete) NA (not available) PRTL (partial) Note Applies only when TMPER = 15-MIN or 1-DAY. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | Not available in this release | Not applicable |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY 1-UNT (untimed) | 15-MIN |
| mondatt | The start monitoring date of a performance monitoring interval | MM-DD | The current system date. |
| montm | The start monitoring time of a performance monitoring interval | HH-MM-SS | Not applicable |
| index | The bin index | 0 to 96 ALL (all available bins from 1 to 96) | 0 |

RTRV-PORT

The RTRV-PORT command retrieves the port of a passive module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PORT:[TID]:[<aid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],[GRID=<grid>],
[CHNLS=<chnls>],[C1=<custom1>],[C2=<custom2>],[C3=<custom3>],
[WAVELENGTH=<wavelength>],[REMOTEID=<remoteid>]" cr lf
;
```

Example command and response

```
RTRV-PORT:BTI7000::100::;
```

```
BTI7000 03-11-12 11:42:00
M 100 COMPLD "C1ADM-1-6-1:"
"C1ADM-1-6-1-9:WAVELENGTH=1451"
"C1ADM-1-6-1-P:"
;
```

Parameters

| Parameter | Description | Range | Default |
|------------|---|--|----------------|
| aid | The access identifier | See 2.36, "Port AID (aid) for passive modules". | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the port | DSF NDSF (SMF-28) NZDSF | Not applicable |
| grid | ITU-T wavelength grid numbers | 50 GHz | Not applicable |
| | Note Applies to DWDM multiplexers only | 100 GHz 200 GHz | |
| chnls | The number of DWDM channels | 0 to 40 | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| wavelength | The wavelength in nm | See 2.47, "Wavelength (wavelength) for Multiplexing modules". | Not applicable |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |

RTRV-PWRMD

The RTRV-PWRMD command retrieves the power mode setting for Feed A and Feed B.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-PWRMD:[TID]:[<src>]:[CTAG];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD ;
```

Example command and response

```
RTRV-PWRMD:BTI7000::100;
```

```
BTI7000 07-09-21 10:28:29
M 100 COMPLD
    "FEEDA=DC,FEEDB=NONE"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------------------|-----------------------|----------------|
| src | The source access identifier | MS-1, ES-{11, 12, 13} | Not applicable |

RTRV-ROUTE-ALL

The RTRV-ROUTE-ALL command retrieves the routes on the SCP for OSPF and static routing. It also provides a route for IP-NMS, IP-Craft, and loopback.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ROUTE-ALL:[TID]:[CTAG]:;
```

Message syntax

```
SID DATE TIME
M CTAG COMPLD "<ipaddr>,<mask>,<nexthop>:[COST=<cost>],
[ADMINDIST=<admindist>],[TYPE=<type>],[PROT=<prot>],[AGE=<age>],
[PREFSTAT=<prefstat>]"
;
```

Example command and response

```
RTRV-ROUTE-ALL:BTI7000:100;
```

```
BTI7000 04-01-05 13:24:54
M 100 COMPLD
":
224.0.0.0,255.255.255.0,127.0.0.1:COST=0,ADMINDIST=0,TYPE=INDIRECT,PROT=,AGE=
0,PREFSTAT=Y"
":192.168.17.0,255.255.255.0,IP-
CRAFT:COST=0,ADMINDIST=0,TYPE=DIRECT,PROT=CONNECTED,AGE=0,PREFSTAT=Y"
":127.0.0.0,255.0.0.0,IP-
LOOPBACK:COST=0,ADMINDIST=0,TYPE=DIRECT,PROT=CONNECTED,AGE=0,PREFSTAT=Y"
":10.0.0.0,255.0.0.0,IP-
NMS:COST=0,ADMINDIST=0,TYPE=DIRECT,PROT=CONNECTED,AGE=0,PREFSTAT=Y"
":
0.0.0.0,0.0.0.0,10.1.1.1:COST=0,ADMINDIST=0,TYPE=INDIRECT,PROT=,AGE=0,PREFSTA
T=Y" ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| ipaddr | The IP address of a destination host or network | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask that applies to IPADDR, indicating the range of addresses for this destination | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | The next hop router to which packets addressed to the destination are routed | is a string Note The value can be an IP address for a router or a local IP interface AID that indicates that the destination is connected on the locally connected network. | Not applicable |
| cost | The cost | Integer | Not applicable |
| admindist | The administrative distance | Integer | Not applicable |
| type | The routing type | DIRECT INDIRECT INVALID OTHER | Not applicable |
| prot | The routing protocol from which the route is derived | CONNECTED ICMP OSPF STATIC | Not applicable |
| age | The age of the route in second. | Integer | Not applicable |
| prefstat | The preferred route for the destination indicator | Y N | Not applicable |

RTRV-ROUTE-CONN

The RTRV-ROUTE-CONN command retrieves the routing table entries derived from locally connected network data for the routers on OSCs on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ROUTE-CONN:[TID]:[CTAG]:;
```

Message syntax

```
SID DATE TIME
M CTAG COMPLD
  "<ipaddr>,<mask>,<nexthop>:[COST=<cost>],          [ADMINDIST=<admindist>],
[TYPE=<type>],[PROT=<prot>],[AGE=<age>],
  [PREFSTAT=<prefstat>]"
;
```

Example command and response

```
RTRV-ROUTE-CONN:BTI7000:100::;
```

```
BTI7000 04-01-06 07:30:48
M 100 COMPLD
  "127.0.0.1,,IP-1-1-0:COST=20,ADMINDIST=30,TYPE=DIRECT,
PROT=CONNECTED,AGE=10,PREFSTAT=Y"
  "OSC-1-1:20.1.1.0,255.255.255.0,IP-1-1-1:COST=10,ADMINDIST=40,
TYPE=DIRECT,PROT=CONNECTED,AGE=20,PREFSTAT=N"
  "OSC-1-1:10.1.1.0,255.255.255.0,IP-1-1-3:COST=20,ADMINDIST=40,
TYPE=DIRECT,PROT=CONNECTED,AGE=30,PREFSTAT=N"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ipaddr | The IP address of a destination host or network | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask that applies to the IPADDR parameter, indicating the range of addresses for this destination. | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | The next hop router to which packets addressed to the destination are routed | String Note The value can be an IP address for a router or a local IP interface AID that indicates that the destination is connected on the locally connected network. | Not applicable |
| cost | The cost | Integer | Not applicable |
| admindist | The administrative distance | Integer | Not applicable |
| type | The routing type | DIRECT INDIRECT INVALID OTHER | Not applicable |
| prot | The routing protocol | CONNECTED | Not applicable |
| age | The age of the route in seconds | Integer | Not applicable |
| prefstat | The preferred route for the destination indicator | Y N | Not applicable |

RTRV-ROUTE-OSPF

The RTRV-ROUTE-OSPF command retrieves the routing table entries derived from the OSPF protocol for routers on OSCs on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ROUTE-OSPF:[TID]:[CTAG]::;
```

Message syntax

```
SID DATE TIME
M CTAG COMPLD
  "<ipaddr>,<mask>,<nexthop>:[COST=<cost>],
[ADMINDIST=<admindist>],TYPE=<type>],[PROT=<prot>],[AGE=<age>],
  [PREFSTAT=<prefstat>]"
;
```

Example command and response

```
RTRV-ROUTE-OSPF:BTI7000:100::;

BTI7000 04-01-06 07:31:59
M 100 COMPLD
  "30.0.0.0,255.0.0.0,IP-1-1-1:COST=10,ADMINDIST=40,
TYPE=INDIRECT,PROT=OSPF,AGE=50,PREFSTAT=Y"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ipaddr | The IP address of a destination host or network | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask that applies to the IPADDR parameter, indicating the range of addresses for this destination. | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | The next hop router to which packets addressed to the destination are routed | String Note The value can be an IP address for a router or a local IP interface AID that indicates that the destination is connected on the locally connected network. | Not applicable |
| cost | The cost | Integer | Not applicable |
| admindist | The administrative distance | Integer | Not applicable |
| type | The routing type | DIRECT INDIRECT INVALID OTHER | Not applicable |
| prot | The routing protocol | OSPF | Not applicable |
| age | The age of the route in seconds | Integer | Not applicable |
| prefstat | The preferred route for the destination indicator | Y N | Not applicable |

RTRV-ROUTE-STATIC

The RTRV-ROUTE-STATIC command retrieves the routing table entries that were statically provisioned for routers on the OSC on the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-ROUTE-STATIC:[TID]:[CTAG]::;
```

Message syntax

```
SID DATE TIME
M CTAG COMPLD
  "<ipaddr>,<mask>,<nexthop>:[COST=<cost>],
[ADMINDIST=<admindist>],TYPE=<type>],[PROT=<prot>],[AGE=<age>],
  [PREFSTAT=<prefstat>]"
;
```

Example command and response

```
RTRV-ROUTE-STATIC:BTI7000::100::;
```

```
BTI7000 04-01-05 13:24:30
M 100 COMPLD
  "20.0.0.0,255.0.0.0,IP-1-3-0:COST=0,ADMINDIST=1,TYPE=DIRECT,
PROT=STATIC,AGE=0,PREFSTAT=Y"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| ipaddr | The IP address of a destination host or network | Four integers between 0 and 255 separated by periods | Not applicable |
| mask | The IP mask that applies to the IPADDR parameter, indicating the range of addresses for this destination. | Four integers between 0 and 255 separated by periods | Not applicable |
| nexthop | The next hop router to which packets addressed to the destination are routed | String Note The value can be an IP address for a router or a local IP interface AID that indicates that the destination is connected on the locally connected network. | Not applicable |
| cost | The cost | Integer | Not applicable |
| admindist | The administrative distance | Integer | Not applicable |
| type | The routing type | DIRECT INDIRECT INVALID OTHER | Not applicable |
| prot | The routing protocol | STATIC | Not applicable |
| age | The age of the route in seconds | Integer | Not applicable |
| prefstat | The preferred route for the destination indicator | Y N | Not applicable |

RTRV-SER

The RTRV-SER command retrieves serial port information for the network element.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-SER:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:[RATE=<rate>],[DATABITS=<databits>],[PARITY=<parity>],
[STOPBITS=<stopbits>]" cr lf;
```

Example command and response

```
RTRV-SER:BTI7000::100::;
```

```
BTI7000 02-11-05 15:00:00
M 100 COMPLD
"SER-1:RATE=9600,DATABITS=8,PARITY=NONE,STOPBITS=1";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--------------------------|--|----------------|
| aid | The access identifier | ALL SER-1 | Not applicable |
| rate | The baud rate | See 2.3, " Baud rate (rate) ". | 9600 |
| databits | The number of data bits. | 7 8 | 8 |
| parity | The serial parity value | EVEN ODD NONE | NONE |
| stopbits | The number of stop bits | 1 or 2 | 1 |

RTRV-SNMP-COMMUNITY

The RTRV-SNMP-COMMUNITY command retrieves the SNMP community information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-SNMP-COMMUNITY:[TID]:[<community>]:[CTAG];
```

Message syntax

```
      SID DATE TIME
M CTAG COMPLD
    "<community>:<access>"
;
```

Example command and response

```
RTRV-SNMP-COMMUNITY:BTI7000::100;
```

```
      BTI7000 04-01-05 13:26:36
M 100 COMPLD
    "public:READ"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|----------------------------------|----------------|
| community | The community string | 1 to 20 alphanumeric characters. | Not applicable |
| access | The access level for this community | READ WRITE | Not applicable |

RTRV-SNMP-TRAPRCV

The RTRV-SNMP-TRAPRCV command retrieves the SNMP trap receiver information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-SNMP-TRAPRCV:[TID]:[<rcvid>]:[CTAG];
```

Message syntax

```
SID DATE TIME  
M CTAG COMPLD
```

```
"Test5678901234567890:192.168.17.42,public,V1:PORT=1,NOTIFTYPE=TRAP,TTL=00-00  
"  
"Test:192.168.17.42,public,V2C:PORT=162,NOTIFTYPE=TRAP,TTL=00-00"  
"Test3:192.168.17.42,public,V3:PORT=162,NOTIFTYPE=TRAP,TTL=00-00"  
"Test4:192.168.17.42,public,V3:PORT=162,NOTIFTYPE=TRAP,TTL=00-00"  
;
```

Example command and response

```
RTRV-SNMP-TRAPRCV:BTI7000::100;
```

```
BTI7000 04-01-05 13:28:33  
M 100 COMPLD  
"receiver1:10.1.1.1,public,V2C:PORT=162,NOTIFTYPE=TRAP"  
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| rcvid | The receiver identifier | 1 to 20 alphanumeric characters | Not applicable |
| ipaddr | The IP address to which traps are to be directed | Four integers between 0 and 255 separated by periods | Not applicable |
| community | The community string to be included in the trap PDU | 1 to 20 alphanumeric characters | Not applicable |
| version | The SNMP message version | V1 V2C V3 | Not applicable |
| port | The destination port number | Integer | Not applicable |
| notiftype | The type of PDU notifications used for this receiver | TRAP INFORM | Not applicable |
| | Note The value INFORM is not valid if the version is set to V1 or V3. | | |

RTRV-STM1

The RTRV-STM1 command retrieves provisioning and state information for an STM-1 port of an 8-Port or 10-Port Multiprotocol SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-STM1:[TID]:<aid>:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phyppmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],
[AINSTMR=<ainstmr>],[ACTAINSTMR=<actainstmr>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf
;
```

Example command and response

```
RTRV-STM1:BTI7000::100::;
```

```
BTI7000 07-07-28 12:10:25
```

```
M 100 COMPLD
```

```
"MXP-21-1-
```

```
C3:PHYPMON=OFF,SDBER=10MINUS6,WAVELENGTH=1310,TOHTRANSPARENCY=NO,AINSTMR=08-
00,:OOS-AU,AINS&UEQ"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|---|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and | NO |

| Parameter | Description | Range | Default |
|------------|---|--|------------------------------|
| | | when the client is not in a maintenance state (OOS-MA). | |
| actainstmr | The active auto in-service timer | String | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-STM4

The RTRV-STM4 command retrieves provisioning and state information for an STM-4 of an 8-Port or 10-Port Multiprotocol SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-STM4:[TID]:<aid>:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phyppmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],
[VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],[DCCTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[AINSTM=<ainstm>],
[ACTAINSTM=<actainstm>],[REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:
[<pst>],[<sst>" cr lf
;
```

Example command and response

```
RTRV-STM4:BTI7000::100::;
```

```
BTI7000 07-07-28 12:10:25
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,OPRHT=-1.9,OPRLT=-22.0,OPTHT=-1
.
0,OPTLT=-11.0,WAVELENGTH=1310,DCCTRANSPARENCY=NO,TRANSPARENCYCHANNEL=1,AINSTMR=08-00,:OOS-AUMA,MT&FLT" ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |

| Parameter | Description | Range | Default |
|-----------------|---|---|----------------|
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)". | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported transparently or terminated and regenerated. | YES (transported transparently) NO (terminated and regenerated) Note TOHTRANSPARENCY cannot be changed when the client is connected and when the client is not in a maintenance state (OOS-MA). | NO |
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated. | YES (handled transparently) NO (terminated and regenerated) Note DCCTRANSARENCY cannot be changed when the client is connected. | NO |

| Parameter | Description | Range | Default |
|------------|---|--|------------------------------|
| actainstmr | The active auto in-service timer | String | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41 , "Secondary state (sst)". | Not applicable |

RTRV-STM16

The RTRV-STM16 command retrieves provisioning and state information for an STM-16 port on an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-STM16:[TID]:<aid>:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phypmon>],
[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],[OPRHT=<oprht>],
[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],
[WAVELENGTH=<wavelength>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
[TOHTRANSPARENCY=<tohtransparency>],
[DCCTTRANSPARENCY=<dcctransparency>],
[TRANSPARENCYCHANNEL=<transparencychannel>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>"
```

Example commands and responses

```
RTRV-STM16:BTI7000::100::;
```

```
BTI7000 07-07-28 12:10:25
```

```
M 100 COMPLD
```

```
"MXP-1-1-
```

```
C4:PHYPMON=OFF,SDBER=10MINUS6,WAVELENGTH=1310,TOHTRANSPARENCY=NO,DCCTTRANSPAR
ENCY=NO,TRANSPARENCYCHANNEL=1,AINSTMR=08-00,:OOS-AU,UEQ"
;
```

```
RTRV-STM16:BTI7000:MXP-21-1-L1
```

```
BTI7000 07-07-28 12:10:25
```

```
M 100 COMPLD
```

```
"MXP-21-1-
```

```
L1:PHYPMON=OFF,SDBER=10MINUS6,WAVELENGTH=1310,TOHTRANSPARENCY=NO,DCCTTRANSPAR
ENCY=NO,TRANSPARENCYCHANNEL=0,AINSTMR=08-00,LINEMAPPING=OTU1:OOS-
```

AUMA, MT&UEQ&SGEO "

;

Parameters

| Parameter | Description | Range | Default |
|-----------------|---|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| sdber | The signal degrade bit error rate threshold | MXP2.5: 10^{-5} to 10^{-8} MXP10: 10^{-5} to 10^{-12} | 10^{-6} |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| oprht | The optical power received high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, "Fiber type (fiber, fibertype)" . | Not applicable |
| wavelength | The channel wavelength in nm | 850 to 1650 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| tohtransparency | The section overhead transparency for the client is either transported | YES (transported transparently) NO (terminated and regenerated) | NO |

| Parameter | Description | Range | Default |
|---------------------|---|--|------------------------------|
| | transparently or terminated and regenerated | | |
| | Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | | |
| dcctransparency | The data communication channel is either handled transparently or terminated and regenerated | YES (handled transparently) NO (terminated and regenerated) | NO |
| | Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | | |
| transparencychannel | The channel on which DCC transparency is transported | 1 to 16 | 1 |
| | Note Applies only to 8-Port and 10-Port Multiprotocol Muxponders. | | |
| actainstmr | The active auto in-service timer | String | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |
| linemapping | The OTN configuration of the line port | NONE (no OTN digital wrapper is added to the port) | |
| | Note Applies only to 8-Port Multiprotocol Muxponders. | OTU1 (SONET into and OTU1 frame) SUBODU1-OTU1 (no SDH framing; four ODU1s into an OTU1 frame) | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | 1 to 255 alphanumeric characters. Note The following characters cannot be used as part of the id: " * , / : ; < > ? \ | Not applicable |
| laserctrl | The laser status control | AUTO MANUAL_ON MANUAL_OFF | AUTO |
| pst | The primary state of the equipment | IS: In-service OOS: Out-of-service | IS As per AUTOP parameter |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-STM64

The RTRV-STM64 command retrieves provisioning and state information for an STM-64 line side port on a 10-Port Multiprotocol Muxponder – SDH module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-STM64:[TID]:<aid>:CTAG::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^" <aid>:[ID1=<id>],[CUSTOM1=<custom>],[PEC=<pec>],
[PHYPMON=<phyppmon>],[SDBER=<sdber>],[LASERSTATUS=<laserstatus>],
[OPRHT=<oprht>],[OPRLT=<oprlt>],[OPTHT=<optht>],[OPTLT=<optlt>],
[FIBERTYPE=<fibertype>],[WAVELENGTH=<wavelength>],[VENDORPN1=<vendorpn1>],
[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>],[LINEMAPPING=<linemapping>],[REMOTEID=<remoteid>],
[LASERCTRL=<laserctrl>]:[<pst>],<sst>" cr lf;
```

Example command and response

```
RTRV-STM64:BTI7000::100::;
```

```
BTI7000 07-07-28 12:10:25
M 100 COMPLD
" MXP-1-1-L1:PHYPMON=OFF,SDBER=10MINUS6,LASERSTATUS=ON,
OPRHT=0.9,OPRLT=-14.9,OPTHT=-0.5,OPTLT=-6.5,WAVELENGTH=1310,AINSTMR=08-00,
LINEMAPPING=OTU2:OOS-AUMA,MT&FLT"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------------|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | Not applicable |
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| custom1 | The custom field for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| pec | The product equipment code of the transceiver | 1 to 11 alphanumeric characters | Not applicable |
| phyppmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |

| Parameter | Description | Range | Default |
|-------------|--|--|----------------|
| sdber | The signal degrade bit error rate threshold | 10^{-5} to 10^{-12} | 10^{-6} |
| oprht | The optical power received high threshold Note Requires that PHYPMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold Note Requires that PHYPMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold Note Requires that PHYPMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold Note Requires that PHYPMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| laserstatus | The status of the transmit laser | ON OFF | Not applicable |
| fibertype | The fiber type that connects to the port | See 2.12, “Fiber type (fiber, fibertype)”. | Not applicable |
| wavelength | The channel wavelength in nm | For nontunable XFPs: 850 to 1650 For tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| actainstmr | The active auto in-service timer | String | Not applicable |
| ainstmr | The automatic in-service timer for the port in the format HH-MM | 00-00 to 96-00 | 08-00 |

| Parameter | Description | Range | Default |
|-------------|---|--|---|
| linemapping | The OTN configuration of the line port | <p>NONE (no OTN digital wrapper is added to the port)</p> <p>ODU1-OTU2 (port is configured as an OTN digitally wrapped OTU2 facility containing 4 ODU1 units)</p> <p>OTU2 (port is configured as an OTN digitally wrapped OTU2 facility to which an STM-64 facility is directly mapped)</p> <p>Note</p> <p>Although LINEMAPPING is associated with each line, the value will always be the same for both lines. That is, when the value is changed for one line port, the same value is automatically applied to the other line port.</p> <p>Note</p> <p>LINEMAPPING cannot be changed when connections exist on the line, when line protection is enabled, or when both lines are in service (IS).</p> | |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS: In-service</p> <p>OOS: Out-of-service</p> | <p>IS</p> <p>As per AUTOP parameter</p> |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-SWLOG

The RTRV-SWLOG command allows you to transfer log files using SSH (SFTP) to provide a secure file transfer, in addition to FTP. Only one command instance can be active at one time.

- The command response is "CMPLD," if the system is able to process the request.
- The command response is "DENY," if the system encounters an error while processing the request.

Input syntax

```
RTRV-SWLOG:[TID]::[CTAG]::IPADDR=<ipaddr>,[PATH=<path>],[USERID=<userid>],
[PWD=<pwd>],[TYPE=<type>];
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| ipaddr | The remote destination IP address, to where the log files are transferred through SFTP or FTP. | Valid IP address | Not applicable |
| path | <p>The destination directory, where the log files are maintained.</p> <p>Note If the path does not include the filename.</p> | <p>A valid destination path (excluding the filename), up to 14 characters.</p> <p>If a path includes more than 14 characters, the operation may be successful; however, a report may not be generated.</p> <p>If a path is not specified:</p> <ul style="list-style-type: none"> • SFTP: The logs are place in the / home/<userid> directory. • FTP: The logs are placed in the shared FTP file transfer folder. | Not applicable |
| userid | The identifier used to access SFTP or FTP. | <p>A valid SFTP or FTP id, from 1 to 10 alphanumeric characters.</p> <p>The following characters are not supported:</p> <ul style="list-style-type: none"> • SFTP: ' - () # & • FTP: @ ' | Not applicable |
| pwd | <p>The password used to access SFTP or FTP.</p> <p>Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). For details on what characters are forbidden, see Appendix E, "Special characters".</p> | A valid SFTP or FTP password, associated with the user id, from 6 to 10 alphanumeric. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|-------------|---------|
| type | The file transfer protocol used to access the remote destination. | SFTP FTP | SFTP |

RTRV-SYS

The RTRV-SYS command retrieves system-wide network element provisioning information.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-SYS[:[TID]::[CTAG]::;]
```

Response syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"::TYPE=<type>,NEID=<neid>,NENAME=<nename>,GATEWAY=<gateway>,
[ SITEID=<siteid>],[ SITENAME=<sitename>],TZ=<tz>,AUTODST=<autodst>,
[AUTOP=<autop>],[ UPTIME=<uptime>],[ STP=<stp>],[ CONTACT=<contact>],
[ FPDETECT=<fpdetect>],[ HTAS=<htas>]cr lf
;
```

Example command and response

```
BTI7000>
RTRV-SYS
```

```
BTI7000 06-03-02 18:48:12
M 100 COMPLD
```

```
"::TYPE=BTI7000,NEID=0,NENAME=BTI7000,GATEWAY=10.1.1.1,
SITEID=0,SITENAME=BTI,TZ=USAEASTERN,AUTODST=Y,UPTIME=5122-08-34,
AUTOP=IS,AINSTMR=00-00,STP=OFF,CONTACT=Technical
support at 555-5555,FPDETECT=OFF,HTAS=OFF"
;
BTI7000>
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| neid | The network element identifier | 0 to 65535 | Not applicable |
| nename | The network element name. Note Embedded blank spaces are not supported, but a hyphen is an acceptable substitution character for a space. | 1 to 20 alphanumeric characters | Not applicable |
| gateway | The gateway IP address | Four integers between 0 and 255 separated by periods. | Not applicable |
| secgateway | The secondary gateway IP address Note SECGATEWAY is used for OSC functionality only. | Four integers between 0 and 255 separated by periods UNASSIGNED | UNASSIGNED |
| siteid | The site identifier | 0 to 65535 | Not applicable |
| sitename | The site name | 1 to 20 alphanumeric characters | Not applicable |
| tz | The time zone name | See Appendix B, "Time zones" . | Not applicable |
| autodst | The auto daylight savings time parameter | Y N | Not applicable |
| autop | The auto provisioning flag Note Autoprovisioning is not supported for SDH applications on the 2.5G Wavelength Regenerator. | AINS IS OOS OFF | AINS |
| uptime | The time the system has been operating in the format hours-minutes-seconds | HHHH-MM-SS | Not applicable |
| ainstmr | The automatic in-service timer in the format hours-minutes | 00-00 to 96-00 | 08-00 |
| stp | The spanning tree protocol indicator | ON OFF | OFF |
| contact | The contact information for the NE | String containing up to 256 characters | Not applicable |
| fpdetect | Filler pack detection | ON OFF | OFF |
| htas | Specifies whether or not to shutdown a module when it exceeds the high temperature automatic threshold. | ON OFF | ON |

RTRV-SYS-RELNUM

The RTRV-SYS-RELNUM command displays the active and inactive software versions on the SCP.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-SYS-RELNUM:[TID]::[CTAG]::[<type>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"ACTIVE=<active>,INACTIVE=<inactive>," cr lf;
```

Example command and response

```
RTRV-SYS-RELNUM:BTI7000::100::;
```

```
BTI7000 10-01-04 15:38:04
M 100 COMPLD
"ACTIVE=7.2.0,INACTIVE=7.3.0 C001,";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------|---|----------------|
| type | The release number type | Active (release number of the active software load in the format "a.b.c Cnnn", where a, b, and c are digits, and nnn is a three-digit number, such as 001) Inactive (release number of the inactive software load in the format "a.b.c Cnnn", "a.b.c Cnnn", where a, b, and c are digits, and nnn is a three-digit number, such as 001) | Not applicable |

RTRV-TARP-CACHE

The RTRV-TARP-CACHE command shows TID Address Resolution Protocol entries, showing the NSAP address to TID mappings for neighbouring NEs for OSI.

Although it is visible to the user, this command is not supported by this version of the product.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

RTRV-TH-FC

The RTRV-TH-FC command retrieves the threshold level of one or more monitored parameters for a Fibre Channel client side port of an 8-Port or 10-Port Multiprotocol Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TH-FC:[TID]:<aid>:[CTAG]::[<montype>],[<locn>],[<tmper>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,[<locn>],[<dirn>],<thlev>,[<tmper>]" cr lf
;
```

Example command and response

```
RTRV-TH-FC:BTI7000:MXP-1-1-C2:100::;
```

```
BTI7000 07-09-21 10:25:38
M 100 COMPLD
"MXP-1-1-C2,FC:CV,NEND,RCV,382,15-MIN"
"MXP-1-1-C2,FC:ES,NEND,RCV,25,15-MIN"
"MXP-1-1-C2,FC:SES,NEND,RCV,4,15-MIN"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(C1-C10) | Not applicable |
| aidtype | The entity type specified by the message | FC | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

RTRV-TH-GE

The RTRV-TH-GE command retrieves the threshold level of one or more monitored parameters for a GE client side port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TH-GE:[TID]:<aid>:[CTAG]::[<montype>],[<locn>],[<tmper>];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf
;
```

Example command and response

```
RTRV-TH-GE:BTI7000:MXP-1-1-C9:100::;
```

```
BTI7000 07-09-21 10:25:38
M 100 COMPLD
"MXP-1-1-C9,GE:CV,NEND,RCV,382,15-MIN"
"MXP-1-1-C9,GE:ES,NEND,RCV,25,15-MIN"
"MXP-1-1-C9,GE:SES,NEND,RCV,4,15-MIN"
"MXP-1-1-C9,GE:FRDR,NEND,RCV,0,15-MIN"
"MXP-1-1-C9,GE:FCSE-RX,NEND,RCV,0,15-MIN"
"MXP-1-1-C9,GE:USIZE,NEND,RCV,0,15-MIN"
"MXP-1-1-C9,GE:OSIZE,NEND,RCV,0,15-MIN"
"MXP-1-1-C9,GE:FRGT,NEND,RCV,0,15-MIN"
"MXP-1-1-C9,GE:JABR,NEND,RCV,0,15-MIN"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| aidtype | The entity type specified by the message | GE | |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

RTRV-TH-OCn

The RTRV-TH-OCn commands retrieve the threshold level of one or more monitored parameters for a SONET port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|----------------|--|
| RTRV-TH-OC3: | [TID]:<aid>:[CTAG]:[:<montype>],[<locn>],[<tmper>; |
| RTRV-TH-OC12: | |
| RTRV-TH-OC48: | |
| RTRV-TH-OC192: | |

Message syntax

```
cr lf lf
^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf
;
```

Example commands and responses

```
RTRV-TH-OC3:BTI7000:MXP-21-1-C1:100::;
```

```
BTI7000 07-08-15 20:09:53
M 100 COMPLD
"MXP-21-1-C1,OC3:CVS,NEND,RCV,382,15-MIN"
"MXP-21-1-C1,OC3:ESS,NEND,RCV,25,15-MIN"
"MXP-21-1-C1,OC3:SEFS-S,NEND,RCV,2,15-MIN"
"MXP-21-1-C1,OC3:SESS,NEND,RCV,4,15-MIN"
"MXP-21-1-C1,OC3:CV-L,NEND,RCV,382,15-MIN"
"MXP-21-1-C1,OC3:ES-L,NEND,RCV,25,15-MIN"
"MXP-21-1-C1,OC3:SES-L,NEND,RCV,4,15-MIN"
"MXP-21-1-C1,OC3:UAS-L,NEND,RCV,10,15-MIN"
;
```


Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| aidtype | The entity type specified by the message | | OC3 | |
| | | | OC12 | |
| | | | OC48 | |
| | | | OC192 | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | | Not applicable |
| locn | The monitoring location identifier | NEND | | NEND |
| dirn | The direction indicator | RCV (receive) | | RCV |
| thlev | The threshold level | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | | |
| tmper | The performance monitoring time period | 15-MIN | | 15-MIN |
| | | 1-DAY | | |

RTRV-TH-OSC

The RTRV-TH-OSC command retrieves threshold settings for threshold crossing alerts generated for OSC facilities on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TH-OSC:[TID]:<aid>:[CTAG]:[<montype>],
[<locn>],[<tmper>];
```

Message syntax

```
"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,
<tmper>"
```

Example command and response

```
RTRV-TH-OSC:rob-1-3-11:100::,,;
BTI7000 11-10-19 13:54:24
M 100 COMPLD
"ROB-1-3-L1,OSC:CVS,NEND,RCV,382,15-MIN"
"ROB-1-3-L1,OSC:ESS,NEND,RCV,25,15-MIN"
"ROB-1-3-L1,OSC:SEFS-S,NEND,RCV,2,15-MIN"
"ROB-1-3-L1,OSC:SESS,NEND,RCV,4,15-MIN"
"ROB-1-3-L1,OSC:UAS-S,NEND,RCV,10,15-MIN"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the OSC facilities | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| aidtype | The entity type specified by the message | OSC | |
| montype | The type of monitored parameter | CVS ESS SESS SEFS-S UAS-S | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

RTRV-TH-STMn

The RTRV-TH-STMn commands retrieve the threshold level of one or more monitored parameters for an SDH port of a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|----------------|--|
| RTRV-TH-STM1: | [TID]:<aid>:[CTAG]:[<montype>],[<locn>],[<tmper>]; |
| RTRV-TH-STM4: | |
| RTRV-TH-STM16: | |
| RTRV-TH-STM64: | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf
;
```

Example command and response

```
RTRV-TH-STM16:BTI7000:MXP-1-1-C4:100::;

BTI7000 07-07-28 17:27:10
M 100 COMPLD
"MXP-1-1-C4,STM16:RS-EB,NEND,RCV,0,15-MIN"
"MXP-1-1-C4,STM16:RS-BBE,NEND,RCV,382,15-MIN"
"MXP-1-1-C4,STM16:RS-ES,NEND,RCV,25,15-MIN"
"MXP-1-1-C4,STM16:RS-SES,NEND,RCV,4,15-MIN"
"MXP-1-1-C4,STM16:RS-OFS,NEND,RCV,2,15-MIN"
"MXP-1-1-C4,STM16:MS-EB,NEND,RCV,0,15-MIN"
"MXP-1-1-C4,STM16:MS-BBE,NEND,RCV,21260,15-MIN"
"MXP-1-1-C4,STM16:MS-ES,NEND,RCV,87,15-MIN"
"MXP-1-1-C4,STM16:MS-SES,NEND,RCV,1,15-MIN"
"MXP-1-1-C4,STM16:MS-UAS,NEND,RCV,10,15-MIN"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------------------|--------|---------------------------------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) |
| | | | Not applicable |

| Parameter | Description | Range | Default |
|-----------|--|--|---|
| | | STM16 | MXP-(1,11,21,31)-(1-20)- (L1,L2,C1-C4) |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)- (L1,L2) |
| aidtype | The type of monitored parameter | STM1 | |
| | | STM4 | |
| | | STM16 | |
| | | STM64 | |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | Not applicable |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

RTRV-TH-STSn/STSnC

The RTRV-TH-STSn/STSnC commands retrieve the threshold level of one or more monitored parameters for an STS path facility object of a SONET Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|-----------------|---|
| RTRV-TH-STSl | [TID]:<aid>:[CTAG]:[<montype>],[<locn>],[<tmper>; |
| RTRV-TH-STSl3C | |
| RTRV-TH-STSl6C | |
| RTRV-TH-STSl9C | |
| RTRV-TH-STSl2C | |
| RTRV-TH-STSl5C | |
| RTRV-TH-STSl8C | |
| RTRV-TH-STSl21C | |
| RTRV-TH-STSl24C | |
| RTRV-TH-STSl30C | |
| RTRV-TH-STSl36C | |
| RTRV-TH-STSl48C | |
| RTRV-TH-STSl72C | |

Message syntax

```
cr lf lf
^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf
;
```

Example command and response

```
RTRV-TH-STSl:BTI7000:MXP-1-4-L1-3:100::,,;
```

```
BTI7000 07-08-15 20:11:37
```

```
M 100 COMPLD
```

```
"MXP-1-4-L1-3,STSl:CVP,NEND,RCV,15,15-MIN"
```

```
"MXP-1-4-L1-3,STSl:ESP,NEND,RCV,12,15-MIN"
```

```
"MXP-1-4-L1-3,STSl:SESP,NEND,RCV,3,15-MIN"
```

```
"MXP-1-4-L1-3,STSl:UASP,NEND,RCV,10,15-MIN"
```

```
"MXP-1-4-L1-3, STS1:FC-P, NEND, RCV, 2, 15-MIN"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| aidtype | The entity type specified by the message | STS1 | |
| | | STS3C | |
| | | STS6C | |
| | | STS9C | |
| | | STS12C | |
| | | STS15C | |
| | | STS18C | |
| | | STS21C | |
| | | STS24C | |
| | | STS30C | |
| | | STS36C | |
| | | STS48C | |
| | | STS72C | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | Not applicable |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | |
| tmper | The performance monitoring time period | 15-MIN | 15-MIN |
| | | 1-DAY | |

RTRV-TH-VCn/VCnC

The RTRV-TH-VCn/VCnC commands retrieve the threshold level of one or more monitored parameters for a VC4 path facility object of an SDH Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

| | |
|---------------|---|
| RTRV-TH-VC4 | [tid]:<aid>:[CTAG]:[<montype>],[<locn>],[<tmper>; |
| RTRV-TH-VC2C | |
| RTRV-TH-VC3C | |
| RTRV-TH-VC4C | |
| RTRV-TH-VC5C | |
| RTRV-TH-VC6C | |
| RTRV-TH-VC7C | |
| RTRV-TH-VC8C | |
| RTRV-TH-VC10C | |
| RTRV-TH-VC12C | |
| RTRV-TH-VC16C | |
| RTRV-TH-VC24C | |

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf;
```

Example command and response

```
RTRV-TH-VC4:BTI7000:MXP-1-6-L1-ALL:100::HP-ES,,;
```

```
BTI7000> rtrv-th-vc4:BTI7000:mxp-1-1-l1-1:100::,,;
BTI7000 07-09-21 10:26:02
M 100 COMPLD
"MXP-1-1-L1-1,VC4:HP-EB,NEND,RCV,0,15-MIN"
"MXP-1-1-L1-1,VC4:HP-BBE,NEND,RCV,15,15-MIN"
"MXP-1-1-L1-1,VC4:HP-ES,NEND,RCV,12,15-MIN"
"MXP-1-1-L1-1,VC4:HP-SES,NEND,RCV,3,15-MIN"
"MXP-1-1-L1-1,VC4:HP-UAS,NEND,RCV,10,15-MIN";
```


Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| aidtype | The entity type specified by the message | VC4 | Not applicable |
| | | VC2C | |
| | | VC3C | |
| | | VC4C | |
| | | VC5C | |
| | | VC6C | |
| | | VC7C | |
| | | VC8C | |
| | | VC10C | |
| | | VC12C | |
| | | VC16C | |
| | | VC24C | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | Not applicable |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | |
| tmper | The performance monitoring time period | 15-MIN | 15-MIN |
| | | 1-DAY | |

RTRV-TH-XCVR

The RTRV-TH-XCVR command retrieves the threshold level of one or more monitored parameters for a port on a Transponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TH-XCVR:[<tid>]:[<aid>]:[CTAG][:[:[<montype>],[<locn>],[<tmper>]]];
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>,<aidtype>:<montype>,<locn>,<dirn>,<thlev>,<tmper>" cr lf
;
```

Example command and response

```
RTRV-TH-XCVR:BTI7000:WM-1-1-1:100;
```

```
BTI7000 07-03-29 19:48:42
M 100 COMPLD
"WM-1-1-1,XCVR:CVS,NEND,RCV,382,15-MIN"
"WM-1-1-1,XCVR:ESS,NEND,RCV,25,15-MIN"
"WM-1-1-1,XCVR:SEFS-S,NEND,RCV,2,15-MIN"
"WM-1-1-1,XCVR:SESS,NEND,RCV,4,15-MIN"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) | Not applicable |
| aidtype | The entity type specified by the message | XCVR | XCVR |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)". | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

RTRV-TMG-MODE

The RTRV-TMG-MODE command retrieves timing-mode information for a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TMG-MODE:[TID]:<aid>:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^"<aid>:<mode>" cr lf
;
```

Example command and response

```
RTRV-TMG-MODE:BTI7000:MXP-1-6:100::;
```

```
BTI7000 07-07-29 10:08:32
M 100 COMPLD
"MXP-1-6:MODE=LINE";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|-------------------------------|----------------|
| aid | The access identifier of the module | MXP-(1,11,21,31)-(1-20) | Not applicable |
| MODE | The timing mode | INT (internal) LINE (line) | Not applicable |

RTRV-TMREF

The RTRV-TMREF command retrieves timing-reference information for a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-TMREF:[TID]:<aid>:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <aid>::[PRI=<pri>],[SEC=<sec>],[PRISSM=<prissm>],[SECSSM=<secssm>]:<sst>"
cr lf
;
```

Example command and response

```
RTRV-TMREF:BTI7000:MXP-1-1:100::;
```

```
BTI7000 07-09-21 10:28:29
M 100 COMPLD
    "MXP-1-1::PRI=MXP-1-1-L1,PRISSM=YES,:STDBY&FLT" "MXP-1-1::SEC=NONE,: "
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| aid | The access identifier of the module | MXP-(1,11,21,31)-(1-20) | Not applicable |
| pri | The primary timing reference | NONE MXP-(1,11,21,31)-(1-20)- (L1,L2,C1,C2) | Not applicable |
| sec | The secondary timing reference | NONE MXP-(1,11,21,31)-(1-20)- (L1,L2,C1,C2) | Not applicable |
| PRISSM | Enable or disable Synch Status Messaging on the reference | YES NO | YES |
| SECSSM | Enable or disable Synch Status Messaging on the reference | YES NO | YES |
| sst | The secondary state of the equipment | See 2.41, "Secondary state (sst)". | Not applicable |

RTRV-USER

The RTRV-USER command allows a user to retrieve his or her own security parameters.

Note Security parameters may be retrieved for remote users, only if the information is obtained from the RADIUS server. No status information is provided for remote users.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-USER:[TID]:[<uid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <uid>:,<uap>:TIMEOUT=<timeout>,
STATUS=<status>" cr lf
;
```

Example command and response

```
RTRV-USER:BTI7000::;
```

```
BTI7000 05-03-16 14:47:57
M 110 COMPLD
"admin:SUPERUSER:TIMEOUT=5,STATUS=IS"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |
| uap | The user access privilege parameter | See 2.45, "User access privilege (uap)" . | Not applicable |
| timeout | The timeout parameter in minutes | 0, 5 to 60 | Not applicable |
| status | The user status value | IS: In-service OOS: Out-of-service | Not applicable |

RTRV-USER-SECU

The RTRV-USER-SECU command retrieves the security parameters of one or more local users.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-USER-SECU:[TID]:[<uid>]:[CTAG]::;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^<uid>:,<uap>:TIMEOUT=<timeout>,
STATUS=<status>" cr lf
;
```

Example command and response

```
RTRV-USER-SECU:BTI7000:ALL:;
```

```
BTI7000 05-03-16 13:09:51
M 153 COMPLD
"admin: SUPERUSER: TIMEOUT=5, STATUS=IS"
"admin2: SUPERUSER: TIMEOUT=5, STATUS=IS"
"beatrice: MAINTENANCE: TIMEOUT=5, STATUS=IS"
"maint: MAINTENANCE: TIMEOUT=5, STATUS=IS"
"prov: PROVISIONING: TIMEOUT=5, STATUS=IS"
"surv: SURVEILLANCE: TIMEOUT=5, STATUS=IS"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---|----------------|
| uid | The user ID, which is a unique name that identifies each authorized system user | 1 to 10 case-sensitive alphanumeric characters | Not applicable |
| uap | The user access privilege parameter | See 2.45, "User access privilege (uap)" . | Not applicable |
| timeout | The timeout parameter in minutes | 0 5 60 | Not applicable |
| status | The user status | IS: In-service OOS: Out-of-service | Not applicable |

RTRV-VCG

The RTRV-VCG command retrieves provisioning information for a virtual concatenation group (VCG) of a Muxponder module. A VCG creates an association between a line side port and a client side port in a defined format.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-VCG:[TID]:[<aid>]:CTAG:::VCGTYPE=<vcgtype>,TSINDEX=<tsindex>;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf ^^
^^^"[<aid>]:[<VCGTYPE=vcgtype>]:[<TSINDEX=tsindex>]" cr lf;
```

Example command and response for a SONET line side port

```
RTRV-VCG:BTI7000:::100::;

BTI7000 07-08-13 15:29:56
M 100 COMPLD
"VCG-1-1-L1-1:VCGTYPE=STS1C21V:TSINDEX=1&&6&13&&21&25&&30"
;
```

Example command and response for an SDH line side port

```
RTRV-VCG:BTI7000:::100::;

BTI7000 07-07-28 13:16:40
M 100 COMPLD
"VCG-1-6-L1-1: VCGTYPE=VC47V:TSINDEX=1&&2&5&&7&9&&10"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|----------------------------------|---|----------------|
| aid | The access identifier of the VCG | VCG-(1,11,21,31)- (1-20)-(L1,L2)-(1-10) | Not applicable |
| vcgtype | The VCG type | See 2.46 , “VCG Type (vcgtype)”. | Not applicable |
| tsindex | The range of time-slot indices | Comma separated set of ranges or individual STS1/STS3c/VC4 indices, | Not applicable |

| Parameter | Description | Range | Default |
|-----------|-------------|---|---------|
| | | where a comma is indicated by & and a range is indicated by &&. For example, 89&&110 specifies the time-slot 89 to 100. | |

RTRV-VERSION

The RTRV-VERSION command allows a user to retrieve the software release version of the system.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-VERSION:[TID]:[<aid>]::[CTAG]:;
```

Message syntax

```
cr lf lf
^^^<sid>^<date>^<time> cr lf
M^^<ctag>^COMPLD cr lf
^^^" <aid>::[GISSUE=<gissue>],[GDBISSUE=<gdbissue>],[ACTDAT=<actdat>],
    [ACTTIM=<acttim>],[VALTM=<valtm>]"
    cr lf
;
```

Example command and response

```
RTRV-VERSION:BTI7000::100::;
```

```
BTI7000 04-03-02 18:56:38
M 100 COMPLD
"ACT::GISSUE=02-01-0"
;
or
```

```
RTRV-VERSION:BTI7000:STBY:100::;
```

```
BTI7000 04-03-02 18:56:38
M 100 COMPLD
"STBY::GISSUE=07-03-0," ;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------------|----------------|
| aid | The version access identifier | ACT STBY | Not applicable |
| gissue | The system software release number, where XX is the major release designation, (00 to 99) YY is the minor | XX-YY-Z | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|-----------------------|----------------|
| | release designation (00 to 99), and Z is the maintenance release designation (0 to 9 or A to Z) | | |
| gdbissue | is the version number of the database in the format "xx-yy-zz", where x is the major release designation, y is the release update designation, and z is the maintenance release designation | XX-YY-Z | Not applicable |
| acttim | The activation time | 00-00-00 if specified | Not applicable |
| valtm | The validation timer expressed as HH=hours, MM=minutes, and SS=seconds. | 00-00-00 if specified | Not applicable |

RTRV-WCH

The RTRV-WCH command retrieves provisioning and status information for wavelength channel facilities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-WCH:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
"<aid>::[<ID=<id>],[C1=<custom1>],[C2=<custom2>],
[C3=<custom3>],[BITRATE=<bitrate>],
[GRID=<grid>],[WAVELENGTH=<wavelength>],
[FREQUENCY=<frequency>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>]:[<pst>],[<sst>]"
```

Example command and response

```
RTRV-WDM:BTI7000:rob-11-1-c2-500:100::;
      BTI7000S2N1 11-10-19 12:57:50
M 100 COMPLD
      "ROB-11-1-
C2-500::BITRATE=10GBS,GRID=100GHZ,WAVELENGTH=1537.39,FREQUENCY=195.
00,:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|--|----------------|
| aid | The access identifier of the wavelength channel | See 2.2, "AID type (aidtype) (for DOL)". | Not applicable |
| id | The identifier that describes the wavelength-channel object | 1 to 32 alphanumeric characters | Not applicable |
| custom(n) | The custom fields for specific operating company information | 0 to 255 alphanumeric characters | Not applicable |
| bitrate | The bitrate of the carried signal | 10 Gb/s | |
| grid | The minimum grid spacing with which the channel is compatible | 100 GHz | |
| wavelength | The channel wavelength | Value in nm | Not applicable |
| frequency | The channel frequency | Value in THz | Not applicable |
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| pst | The primary state of the equipment | See 2.39, "Primary state (pst)". | IS |

| Parameter | Description | Range | Default |
|-----------|--------------------------------------|---|----------------|
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

RTRV-WDM

The RTRV-WDM command retrieves provisioning and status information for WDM entities.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-WDM:[TID]:[<aid>]:[CTAG];
```

Message syntax

```
"<aid>::[<ID=<id>],[C1=<custom1>],[C2=<custom2>],
[C3=<custom3>],[FIBER=<fiber>],[SPANLEN=<spanlen>],
[SPANLOSSSPECMAX=<spanlossspecmax>],
[SPANLOSSRX-HT=<spanlossrx-ht>],
[NUMCHNLS=<numchnls>],[AINSTMR=<ainstmr>],
[ACTAINSTMR=<actainstmr>]:
[<pst>],[<sst>]"
```

Example command and response

```
RTRV-WDM:BTI7000::100::;
```

```
BTI7000 11-10-19 12:52:13
```

```
M 100 COMPLD
```

```
"ROB-1-3-L1::FIBER=SMF,SPANLEN=25,SPANLOSSSPECMAX=30.0,SPANLOSSRX-
HT=0.0,NUMC
```

```
HNLS=39,AINSTMR=08-00,:IS-NR,"
```

```
"ROB-11-1-L1::FIBER=SMF,SPANLEN=0,SPANLOSSSPECMAX=35.0,SPANLOSSRX-
HT=0.0,NUMC
```

```
HNLS=39,AINSTMR=08-00,:IS-NR,"
```

```
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------------|--|---|----------------|
| aid | The access identifier of the WDM | See 2.2 , “ AID type (aidtype) (for DOL) ”. | Not applicable |
| id | The identifier that describes the WDM | 1 to 32 alphanumeric characters | Not applicable |
| custom(n) | The custom fields for specific operating company information | 1 to 255 alphanumeric characters | Not applicable |
| fiber | The type of fiber on the line span | SMF | |
| spanlen | The measured length of the span | Value in kilometers | Not applicable |
| spanlossspecmax | The span-loss specification maximum | Value in decibels (dB) | Not applicable |
| spanlossrx-ht | The span-loss high threshold for the receive fiber | 0.0 dB to 35.0 dB | Not applicable |
| numchnls | The number of channels provisioned on the line WDM | 0 to 44 | Not applicable |
| ainstmr | The automatic in-service timer for the port expressed as HH-MM | 00-00 to 96-00 | 08-00 |
| actainstmr | The active auto in-service timer | String | Not applicable |
| cmdmde | The command mode to be used | NORM FRCD | NORM |
| pst | The primary state of the equipment | See 2.39 , “ Primary state (pst) ”. | IS |
| sst | The secondary state of the equipment | See 2.41 , “ Secondary state (sst) ”. | Not applicable |

RTRV-XCVR

The RTRV-XCVR command retrieves the attributes of an SFP or XFP transceiver port.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Input syntax

```
RTRV-XCVR:[TID]:[<aid>]:[CTAG]:;
```

Message syntax

```
cr lf lf
    SID DATE TIME cr lf
M CTAG COMPLD cr lf
    "<aid>:[ID1=<id1>],[ID2=<id2>],[FIBER=<fiber>],[GRID=<grid>],
    [C1=<custom1>],[C2=<custom2>],[C3=<custom3>],[PROTOCOL=<protocol>],
    [WAVELENGTH=<wavelength>],[PHYPMON=<phypmmon>],[FPSD=<fpsd>],
    [VENDORPN1=<vendorpn1>],[VENDORPN2=<vendorpn2>],[VENDORPN3=<vendorpn3>],
    [PEC=<pec>],[SDBER=<sdber>],[OPT-LT=<optlt>],[OPT-HT=<optht>],[OPR-
    LT=<oprlt>],[OPR-HT=<oprht>],[LASERSTATUS=<laserstatus>],
    [AINSTMR=<ainstmr>],[ACTAINSTMR=<actainstmr>],[OUTGOINGTRC=<outgoingtrc>],
    [EXPECTEDTRC=<expectedtrc>],[RECEIVEDTRC=<receivedtrc>],
    [REMOTEID=<remoteid>],[LASERCTRL=<laserctrl>]:[<pst>],[<sst>]"
;
```

Example command and response

```
RTRV-XCVR:BTI7000:ALL:;
```

```
BTI7000 14-01-22 11:50:56
M 100 COMPLD
```

```
"TPR-1-6-3:PROTOCOL=STM64FEC,WAVELENGTH=1310,PHYPMON=OFF,FPSD=OFF,SDBER=10MI
NUS6,OPT-LT=-6.5,OPT-HT=-0.5,OPR-LT=-14.9,OPR-
HT=0.9,LASERSTATUS=ON,AINSTMR=08-00,LASERCTRL=MANUAL_ON:IS-NR,"
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-(1,11,21,31)-(1-20)-(1-4) WT-(1,11,21,31)-(1-20)-(1-4) | Not applicable |

| Parameter | Description | Range | Default |
|------------|--|---|----------------|
| id1 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| id2 | The identifier that describes the port | 1 to 32 alphanumeric characters | Not applicable |
| fiber | The fiber type that connects to the port | DSF NDSF (SMF-28) NZDSF MULTIMODE | Not applicable |
| grid | The ITU-T wavelength grid number | 20 nm | Not applicable |
| C1, C2, C3 | The custom fields for specific operating company information | 1 to 255 alphanumeric characters. | Not applicable |
| protocol | The protocol | See 2.40, "Protocol (Protocol) for Transponder modules" . | Not applicable |

| Parameter | Description | Range | Default |
|-------------|---|---|----------------|
| wavelength | The channel wavelength in nm | 0 (copper SFPs only) Nontunable XFPs and noncopper SFPs: 850 to 1650 Tunable XFPs: 1529.55 to 1560.61 | Not applicable |
| phypmmon | The threshold crossing alarm monitoring flag | OFF ON | OFF |
| fpsd | The on/off state of fault propagation shutdown | OFF ON Note For information about FPSD and laser status, see the <i>Transponder Solutions Guide</i> . | OFF |
| vendorpn1 | The vendor part number 1 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn2 | The vendor part number 2 | 1 to 20 alphanumeric characters | Not applicable |
| vendorpn3 | The vendor part number 3 | 1 to 20 alphanumeric characters | Not applicable |
| pec | The product equipment code | 1 to 11 alphanumeric characters | Not applicable |
| sdber | The signal degrade BER threshold | 0 (disabled) OC192FEC, STM64FEC, 10GELANFEC, 10GELANFEC EPCMF, OC192EFEC, STM64EFEC, 10GELANEFEC, 10GELANEFEC EPCMF, OTU2FEC: 10MINUS6 (10 ⁻⁶) to 10MINUS10 (10 ⁻¹⁰) | Not applicable |
| oprht | The optical power received high threshold. This value is retrieved from the SFP/XFP and is not provisionable. Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| oprlt | The optical power received low threshold. This value is retrieved from the SFP/XFP and is not provisionable. Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optht | The optical power transmitted high threshold. This value is retrieved from the SFP/XFP and is not provisionable. Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| optlt | The optical power transmitted low threshold. This value is retrieved from the SFP/XFP and is not provisionable. Note Requires that PHYPMMON=ON. | Integer to one decimal place of accuracy | Not applicable |
| laserstatus | The status of the transmit laser | See 2.19, “ Laser status (laserstatus) ”. | Not applicable |

| Parameter | Description | Range | Default |
|-------------|--|---|----------------|
| ainstmr | The automatic in-service timer in the format HH-MM | 00-00 to 96-00 | Not applicable |
| actainstmr | The active auto in-service timer | String | Not applicable |
| outgoingtrc | The label for the section trace | 1 to 15 alphanumeric characters | Not applicable |
| expectedtrc | The label for the expected section trace | 1 to 15 alphanumeric characters | Not applicable |
| receivedtrc | The received section trace label | 1 to 15 alphanumeric characters | Not applicable |
| lpbktype | <p>The loopback type. Options are:</p> <p>FACILITY:</p> <ul style="list-style-type: none"> The port must be provisioned and out-of-service (OOS). If a two-way cross-connect exists, neither port can have a terminal loopback. <p>TERMINAL:</p> <ul style="list-style-type: none"> The port must be provisioned and out-of-service (OOS). A two-way cross-connect must exist. Neither port in the cross-connect may have any type of loopback. If the port is in a protection pair, the port must be in the working (WRK) state. If the port in a protection pair is in standby (STDBY) state, it must be in OOS-MA or lockout (LKDO) state. | <p>FACILITY</p> <p>TERMINAL</p> | FACILITY |
| remoteid | The user-defined identifier of the remote nodes and ports that are connected to local ports on the BTI 7000 Series. | <p>1 to 255 alphanumeric characters.</p> <p>Note</p> <p>The following characters cannot be used as part of the id: " * , / : ; < > ? \ </p> | Not applicable |
| laserctrl | The laser status control | <p>AUTO</p> <p>MANUAL_ON</p> <p>MANUAL_OFF</p> | AUTO |
| pst | The primary state of the equipment | <p>IS: In-service</p> <p>OOS: Out-of-service</p> | Not applicable |
| sst | The secondary state of the equipment | Not available in this release | Not applicable |

RTRV-SWLOG

The RTRV-SWLOG command allows you to transfer log files using SSH (SFTP) to provide a secure file transfer, in addition to FTP. Only one command instance can be active at one time.

- The command response is "CMPLD," if the system is able to process the request.
- The command response is "DENY," if the system encounters an error while processing the request.

Input syntax

```
RTRV-SWLOG:[TID]::[CTAG]::IPADDR=<ipaddr>,[PATH=<path>],[USERID=<userid>],
[PWD=<pwd>],[TYPE=<type>];
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| ipaddr | The remote destination IP address, to where the log files are transferred through SFTP or FTP. | Valid IP address | Not applicable |
| path | <p>The destination directory, where the log files are maintained.</p> <p>Note If the path does not include the filename.</p> | <p>A valid destination path (excluding the filename), up to 14 characters.</p> <p>If a path includes more than 14 characters, the operation may be successful; however, a report may not be generated.</p> <p>If a path is not specified:</p> <ul style="list-style-type: none"> • SFTP: The logs are place in the / home/<userid> directory. • FTP: The logs are placed in the shared FTP file transfer folder. | Not applicable |
| userid | The identifier used to access SFTP or FTP. | <p>A valid SFTP or FTP id, from 1 to 10 alphanumeric characters.</p> <p>The following characters are not supported:</p> <ul style="list-style-type: none"> • SFTP: ' - () # & • FTP: @ ' | Not applicable |
| pwd | <p>The password used to access SFTP or FTP.</p> <p>Note Password restrictions are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface). For details on what characters are forbidden, see Appendix E, "Special characters".</p> | A valid SFTP or FTP password, associated with the user id, from 6 to 10 alphanumeric. | Not applicable |

| Parameter | Description | Range | Default |
|-----------|---|-------------|---------|
| type | The file transfer protocol used to access the remote destination. | SFTP FTP | SFTP |

22.0 SEND commands

This section describes send (SEND) commands for the BTI 7000 Series.

- “SEND-PING”

SEND-PING

The SEND-PING command sends a ping from the System Control Processor (SCP) to a specified destination to test network connectivity.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SEND-PING:[TID]:<aid>:[CTAG]::<ipaddr>;
```

Example command

```
SEND-PING:BTI7000:SCP-1-5:100::10.1.1.1
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the OSC or SCP from which the ping operation is executed | SCP-1-(1,3,5) | Not applicable |
| ipaddr | The IP address of the destination to be pinged | Four integers between 0 and 255 separated by periods | Not applicable |

23.0 SET commands

This section describes set (SET) commands for the BTI 7000 Series.

- “SET-ATTR-ALL”
- “SET-ATTR-EVT”
- “SET-ATTR-SECULOG”
- “SET-AUTH-PRIORITY”
- “SET-NTP”
- “SET-SID”
- “SET-TH-FC”
- “SET-TH-GE”
- “SET-TH-OCn”
- “SET-TH-OSC”
- “SET-TH-STMn”
- “SET-TH-STSn/STSnC”
- “SET-TH-VCn/VCnC”
- “SET-TH-XCVR”
- “SET-TMG-MODE”
- “SET-TMREF”

SET-ATTR-ALL

The SET-ATTR-ALL command allows the user to modify the alarm severity from its default value by specifying the condition type and changing the notification code. Specifying a condition type of ALL resets all alarm severities to the default value.



Syntax

```
SET-ATTR-ALL:[TID]::[CTAG]::[<condtype>],[<ntfcncde>;
```

Example command

```
SET-ATTR-ALL:BTI7000::100::REPLUNITMISS-SLOT,MN;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------|--|----------------|
| condtype | The condition type code | See 2.5, “ Condition type (condtype) ” or 2.6, “ Condition type (condtype) (for DOL) ” | Not applicable |
| ntfcncde | The notification code | See 2.28, “ Notification code (ntfcncde) ”. | Not applicable |

SET-ATTR-ENV

The SET-ATTR-ENV command allows the user to enable the environmental inputs on MSI modules (BT7A53BB/CB) that support them. An environmental input refers to one of the 6 environmental inputs (input 1 to 6, pins 19, 20, 21, 23, 25 and 26) for reporting environmental alarms on the 26-pin alarms connector.

Note If you attempt to enable an input on an MSI module that does not support the environmental inputs (BT7A53BA/CA) an UNSUPPORTED alarm is raised against that AID. The severity of the UNSUPPORTED alarm can be changed using the SET-ATTR-ALL command

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-ATTR-ENV:[TID]:[<aid>]:[CTAG]:[<ntfcncde>],[<almttype>],[<almmsg>],
[<inputtype>] ;
```

Example command

```
SET-ATTR-ENV:BTI7000:
BTI7000> SET-ATTR-ENV:BTI7000:HKI-1:100::MJ,FIRE,"Fire detected in CO-1",NO;

BTI7000 10-05-19 21:23:28
M 100 COMPLD
;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|--|
| aid | The access identifier for the environmental input | HKI-1 to HKI-6 | HKI-1 |
| ntfcncde | The notification code Used to change the severity for an environmental input alarm. | See 2.28, "Notification code (ntfcncde)" | MN |
| almttype | The environmental alarm type | See 2.7, "Environmental condition type (condtype)" | Not applicable |
| almmsg | The environmental alarm message description | String of 0 to 40 characters Note May be enclosed in quotations. | 2.7, "Environmental condition type (condtype)" |
| inputtype | The input type identifies the normal state for an environmental input on an MSI module and the conditions that trigger an alarm. | See 2.16, "Input type (InputType)" | Disable |

SET-ATTR-EVT

The SET-ATTR-EVT command allows the user to enable and suppress (disable) reporting of events.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-ATTR-EVT:[TID]::[CTAG]::<action>;
```

Example command

```
SET-ATTR-EVT:BTI7000::100:ENABLE;;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|------------------------|-------------------|----------------|
| action | The action to be taken | ENABLE DISABLE | Not applicable |

SET-ATTR-SECULOG

The SET-ATTR-SECULOG command instructs a network element to set the attributes for a security log. The attributes govern the message that the user sees when connecting to the BTI 7000 Series. The message is up to 512 characters in length.



Syntax

```
SET-ATTR-SECULOG:[TID]:[<aid>]:[CTAG]::[WARN=<warning>];
```

Example command

```
SET-ATTR-SECULOG:BTI7000::100:::WARN="NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.";
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|-------------------------------|----------------|
| aid | The access identifier | Not available in this release | Not applicable |
| warning | The warning parameter seen by users when they log in to the network element | 0 to 512 characters | not applicable |

SET-AUTH-PRIORITY

The SET-AUTH-PRIORITY command allows the user to set the authentication priority to disabled, local or remote. For more information about these settings, see the following table.



Syntax

```
SET-AUTH-PRIORITY:[TID]:<aid>:[CTAG]::[PRIORITY=<priority>]
```

Example command

```
SET-AUTH-PRIORITY:BTI7000::100::PRIORITY=local;
```

Parameters

| Parameter | Values | Description |
|-------------------------|----------|---|
| Authentication Priority | Disabled | Authentication server is disabled. This is the default setting. |
| | Local | Authentication server is local. User administration is at the node level. |
| | Remote | Authentication server is remote. Remote authentication facilitates centralized user administration. |

| Parameter | Description | Range | Default |
|-----------|-------------------------|-------------------------|----------|
| priority | Authentication priority | disabled, local, remote | disabled |

SET-NTP

This command sets the system time and updates the hardware clock.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-NTP:[TID]::[CTAG]:::[POLLPERIOD=<pollperiod>];
```

Example command

```
SET-NTP:BTI7000::100:::pollperiod=12-12;
```

Parameters

| Parameter | Description | Range | Default |
|------------|--|-------|----------------|
| pollperiod | The polling interval for receiving time updates expressed as hours and minutes | HH-MM | Not applicable |

SET-SID

The SET-SID command sets the system identification (SID) code of the network element. This command also updates the target identifier (TID) and network element (NE) name as a side effect.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-SID:[TID]::[CTAG]::<sid>;
```

Example command

```
SET-SID:BTI7000::100::NE42;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|---------------------------------|----------------|
| sid | The system identification code of the network element | 1 to 20 alphanumeric characters | Not applicable |

SET-TH-FC

The SET-TH-FC command sets the threshold level for a monitored parameter of a Fibre Channel (FC) client side port of an 8-Port or 10-Port Multiprotocol Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-TH-FC:[TID][<tid>]:<aid>:[<ctag>]:<montype>,<thlev>,[<locn>],[<dirn>],  
[<tmper>];
```

Example command

```
SET-TH-FC:BTI7000:MXP-1-1-C1:100::CV,382,,,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)- (1,3,5...19)-(C1-C10) | Not applicable |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)" . | |
| thlev | The threshold level | | |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TH-GE

The SET-TH-GE command sets the threshold level for a monitored parameter of a gigabit Ethernet client side port of a Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-TH-GE:[TID]:[<tid>]:<aid>:[<ctag>]:<montype>,<thlev>,[<locn>],[<dirn>],  
[<tmper>];
```

Example command

```
SET-TH-GE:BTI7000:MXP-1-6-C1:100::CV,382,,,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier of the port | MXP-(1,11,21,31)-(1-20)-(C1-C10) | Not applicable |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)" . | |
| thlev | The threshold level | | |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TH-OCn

The SET-TH-OCn commands set the threshold level for a monitored parameter of a SONET port of a Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|--|
| SET-TH-OC3: | [<tid>]:<aid>:[<ctag>]:<montype>,<thlev>,[<locn>], [<dirn>],[<tper>]; |
| SET-TH-OC12: | |
| SET-TH-OC48: | |
| SET-TH-OC192: | |

Example command

```
SET-TH-OC3:BTI7000:MXP-1-1-C1:100::ESS,25,,,;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--|---------------------------------------|----------------|
| aid | The access identifier of the port | OC3/12 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | OC48 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | OC192 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | | |
| thlev | The threshold level | | | |
| locn | The monitoring location identifier | NEND | | NEND |
| dirn | The direction indicator | RCV | | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | | 15-MIN |

SET-TH-OSC

The SET-TH-OSC command edits the threshold setting for threshold crossing alerts generated for OSC facilities on DOL modules.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-TH-OSC:[TID]:<aid>:[CTAG]::[<montype>],<thlev>,[<locn>],[<DIRN>],[<tmper>];
```

Example command

```
SET-TH-OSC:BTI7000:rob-1-3-11:100::ESS,25,,,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the OSC facilities | See 2.2, “ AID type (aidtype) (for DOL) ”. | Not applicable |
| aidtype | The entity type specified by the message | OSC | |
| montype | The type of monitored parameter | CVS ESS SESS SEFS-S UAS-S | Not applicable |
| locn | The monitoring location identifier | NEND (near end) | NEND |
| dirn | The direction indicator | RCV (receive) | RCV |
| thlev | The threshold level | See 2.43, “ TCA supported montypes (montype) and threshold levels (thlev) ”. | |
| tmper | The performance-monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TH-STMn

The SET-TH-STMn commands set the threshold level for a monitored parameter of an SDH port of a Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|---|
| SET-TH-STM1: | [<tid>]:<aid>:[<ctag>]::<montype>,<thlev>,[<locn>], [<dirn>],[<tper>]; |
| SET-TH-STM4: | |
| SET-TH-STM16: | |
| SET-TH-STM64: | |

Example command

```
SET-TH-STM1:BTI7000:MXP-1-1-C2:100::RS-BBE,382,NEND,;
```

Parameters

| Parameter | Description | Range | | Default |
|-----------|--|--|---------------------------------------|----------------|
| aid | The access identifier of the port | STM1/4 | MXP-(1,11,21,31)-(1,3,5...19)-(C1-C4) | Not applicable |
| | | STM16 | MXP-(1,11,21,31)-(1-20)-(L1,L2,C1-C4) | |
| | | STM64 | MXP-(1,11,21,31)-(1,3,5...19)-(L1,L2) | |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | | |
| thlev | The threshold level | | | |
| locn | The monitoring location identifier | NEND | | NEND |
| dirn | The direction indicator | RCV | | RCV |
| tper | The performance monitoring time period | 15-MIN 1-DAY | | 15-MIN |

SET-TH-STSn/STSnC

The SET-TH-STSn/STSnC commands set the threshold level for a monitored parameter of an STS path facility object of a SONET Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|---------------|--|
| SET-TH-STSl | [<tid>]:<aid>:[<ctag>]::<montype>,<thlev>,[<locn>], [<dirn>],[<tmper>]; |
| SET-TH-STs3C | |
| SET-TH-STs6C | |
| SET-TH-STs9C | |
| SET-TH-STs12C | |
| SET-TH-STs15C | |
| SET-TH-STs18C | |
| SET-TH-STs21C | |
| SET-TH-STs24C | |
| SET-TH-STs30C | |
| SET-TH-STs36C | |
| SET-TH-STs48C | |
| SET-TH-STs72C | |
| | |

Example command

```
SET-TH-STs1:BTI7000:MXP-1-1-L1-1:100::CVP,25,,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | |
| thlev | The threshold level | | |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TH-VCn/VCnC

The SET-TH-VCn/VCnC commands set the threshold level for a monitored parameter of a VC4 path facility object of an SDH Muxponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

| | |
|--------------|---|
| SET-TH-VC4 | [<tid>]:<aid>:[<ctag>]::<montype>,<thlev>,[<locn>], [<dirn>],[<tmper>; |
| SET-TH-VC2C | |
| SET-TH-VC3C | |
| SET-TH-VC4C | |
| SET-TH-VC5C | |
| SET-TH-VC6C | |
| SET-TH-VC7C | |
| SET-TH-VC8C | |
| SET-TH-VC10C | |
| SET-TH-VC12C | |
| SET-TH-VC16C | |
| SET-TH-VC24C | |

Example command

```
SET-TH-VC4:BTI7000:MXP-1-1-L1-1:100::HP-SES,4,,;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|--|----------------|
| aid | The access identifier | See 2.42, “Source AID (src_aid), or Switchmate (swmate)”. | Not applicable |
| montype | The type of monitored parameter | See 2.43, “TCA supported montypes (montype) and threshold levels (thlev)”. | |
| thlev | The threshold level | | |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TH-XCVR

The SET-TH-XCVR command sets the threshold level for a monitored parameter on a port on a Transponder module. When the threshold level is exceeded, an automatic message is triggered.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-TH-XCVR:[<tid>]:<aid>:[<ctag>]:<montype>,<thlev>,[<locn>],[<dirn>],  
[<tmper>];
```

Example command

```
SET-TH-XCVR:BTI7000:WM-1-2-2:100::CV,1048575,NEND,RCV,1-DAY;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|--|---|----------------|
| aid | The access identifier | TPR-(1,11,21,31)-(1-20)-(1-4) WM-(1,11,21,31)-(1-20)-(1-4) WR-1-(1-20)-(1-2) | Not applicable |
| montype | The type of monitored parameter | See 2.43, "TCA supported montypes (montype) and threshold levels (thlev)" . | |
| thlev | The threshold level | | |
| locn | The monitoring location identifier | NEND | NEND |
| dirn | The direction indicator | RCV | RCV |
| tmper | The performance monitoring time period | 15-MIN 1-DAY | 15-MIN |

SET-TMG-MODE

The SET-TMG-MDE command enters timing mode information for a Muxponder module.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

History

| Release | Modification |
|---------|--|
| 7.3.1 | Added a third colon (:) before the parameter MODE in the command syntax. |

Syntax

```
SET-TMG-MODE:[TID]:<aid>:[CTAG]::MODE=<mode>;
```

Example command

```
SET-TMG-MODE:BTI7000:MXP-1-6:100::MODE=LINE;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-------------------------------------|-------------------------------|----------------|
| aid | The access identifier of the module | MXP-(1,11,21,31)-(1-20) | Not applicable |
| mode | The timing mode | INT (internal) LINE (line) | Not applicable |

SET-TMREF

The SET-TMREF command sets the timing reference for a Muxponder module and enables or disables Synchronization Status Messaging on the timing reference.

Note Primary and secondary timing references can be provisioned only if the Muxponder module is provisioned for Line timing mode.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
SET-TMREF:[TID]:<aid>:CTAG:::[PRI=<pri>],[SEC=<sec>],[PRISSM=<prissm>],
[SECSSM=<secssm>];
```

Example command

```
SET-TMREF:BTI7000:MXP-1-1:100:::PRI=MXP-1-1-L1,SEC=MXP-1-1-L2;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|---|--|----------------|
| aid | The access identifier of the module | MXP-(1,11,21,31)-(1-20) | Not applicable |
| PRI | The primary timing reference | NONE MXP-(1,11,21,31)-(1-20)-(L1,L2, C1,C2,NONE) | Not applicable |
| SEC | The secondary timing reference | NONE MXP-(1,11,21,31)-(1-20)-(L1,L2, C1,C2,NONE) | Not applicable |
| PRISSM | Enable or disable Synch Status Messaging on the reference | YES NO | YES |
| SECSSM | Enable or disable Synch Status Messaging on the reference | YES NO | YES |

24.0 STA commands

This section describes start (STA) commands for the BTI 7000 Series.

- “STA-LOG”

STA-LOG

The STA-LOG command instructs a network element to start the logging of messages to a specific log category immediately.

Note By default, all logging is started.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
STA-LOG:[TID]:[<aid>]:[CTAG]::<lognm>;
```

Example command

```
sta-log:BTI7000::100::CMD;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|-----------------------------------|----------------|
| aid | The access identifier | Not available for this release | Not applicable |
| lognm | The log category name | ALM CMD DBCHG EVT ALL | Not applicable |

25.0 STP commands

This section describes stop (STP) commands for the BTI 7000 Series.

- “STP-LOG”

STP-LOG

The STP-LOG command instructs a network element to stop the logging of messages to a specified log category immediately.

Authorization Required

Superuser

Provisioning

Maintenance

Surveillance

Syntax

```
STP-LOG:[TID]:[<aid>]:[CTAG]::<lognm>;
```

Example command

```
STP-LOG:BTI7000::100::ALL;
```

Parameters

| Parameter | Description | Range | Default |
|-----------|-----------------------|-----------------------------------|----------------|
| aid | The access identifier | Not available in this release | Not applicable |
| lognm | The log category | ALM CMD DBCHG EVT ALL | Not applicable |

Appendix A: TL1 error codes and messages

The following table lists the TL1 error codes, error types and error messages.

Table A- 1 TL1 Error Codes

| Error Code | Error Type | Error Message |
|------------|------------|--|
| IBEX | INPUT | Extra Datablock |
| IDNV | INPUT | Input Data Not Valid |
| IDRG | INPUT | Data Range Error |
| IIAC | INPUT | Invalid Access Identifier (AID) |
| IICM | INPUT | Invalid VERB, Invalid MOD1, or Invalid MOD2 |
| IICT | INPUT | Garbage, or General Block Unsupported |
| IIFM | INPUT | Invalid Data Format |
| IITA | INPUT | Either not logged in or login required, or Invalid Target Identifier (TAG) |
| INUP | INPUT | Non-Null Unimplemented Parameter |
| IPEX | INPUT | Extra Parameters |
| IPMS | INPUT | Missing Mandatory Field, or Invalid Syntax |
| IPNV | INPUT | Empty Parameter |
| PICC | PERMISSION | User Already Logged In |
| PLNA | PERMISSION | Login Not Active |
| SAAL | STATUS | User Already Allowed |
| SAIN | STATUS | User Already Inhibited |
| SAIS | STATUS | Already In-Service |
| SAMS | STATUS | Already in Maintenance State |
| SARB | STATUS | All Resources Busy |

Table A- 1 TL1 Error Codes (Continued)

| Error Code | Error Type | Error Message |
|------------|------------|---|
| SDNR | STATUS | Data Not Ready |
| SNVS | STATUS | Not in Valid State |
| SROF | STATUS | Requested Operation Failed |
| SRQN | STATUS | Invalid Request. Please assign an IP address. |
| SRTO | STATUS | Reply Time Out Occurred |
| SSRE | STATUS | System Resources Exceeded |

Appendix B: Time zones

The following list is the time zone values that are available:

GREENWICHMEANTIMEUTC

AFGHANISTAN

ALBANIA

ALGERIA

AMERICANSAMOA

ANDORRA

ANGUILLA

ANTARCTICA

ANTARCTICADAVIS

ANTARCTICADUMONTDURVILLE

ANTARCTICAMAWSON

ANTIGUA

ARGENTINA

ARGENTINAWESTERNPROV

ARMENIA

ARUBA

ASCENSION

AUSTRALIAWESTERN

AUSTRALIANORTHERNTERRITORY

AUSTRALIASOUTH

AUSTRALIANEWSOUTHWALES

AUSTRALIAQUEENSLAND

AUSTRALIAVICTORIA
AUSTRALIAAUSTRALIANCAPITALTERRITORY
AUSTRALIATASMANIA
AUSTRALIALORDHOWEISLAND
AUSTRIA
AZERBAIJAN
AZORES
BAHAMAS
BAHRAIN
BALEARICISLANDS
BANGLADESH
BARBADOS
BELARUS
BELGIUM
BELIZE
BENIN
BERMUDA
BHUTAN
BOLIVIA
BONAIRE
BOSNIAHERCEGOVINA
BOTSWANA
BRAZILATLANTICISLANDS
BRAZILEAST
BRAZILACRE
BRAZILWEST
BRITISHINDIANOCEANTERRITORYCHAGOS
BRITISHVIRGINISLANDS
BRUNEI
BULGARIA
BURKINAFASO
BURUNDI
CAMBODIA
CAMEROON
CANADANEWFOUNDLAND
CANADAATLANTIC
CANADAEASTERN
CANADACENTRAL
CANADAMOUNTAIN

CANADASASKATCHEWAN
CANADAPACIFICYUKON
CANARYISLANDS
CANTONENDERBURYISLANDS
CAPEVERDE
CAROLINEISLANDS
CAYMANISLANDS
CENTRALAFRICANREPUBLIC
CHAD
CHANNELISLANDS
CHATHAMISLAND
CHILE
CHINAPEOPLESREPUBLIC
CHRISTMASISLANDS
COCOSISLANDS
COLOMBIA
CONGO
COOKISLANDS
COSTARICA
COTEDIVOIRE
CROATIA
CUBA
CURACAO
CYPRUS
CZECHREPUBLIC
DENMARK
DJIBOUTI
DOMINICA
DOMINICANREPUBLIC
EASTERISLAND
ECUADOR
EGYPT
ELSALVADOR
ENGLAND
EQUATORIALGUINEA
ERITREA
ESTONIA
ETHIOPIA
FALKLANDISLANDS

FAROEISLAND
FIJI
FINLAND
FRANCE
FRANCEPIERREMIQUELON
FRENCHGUIANA
FRENCHPOLYNESIA
GABON
GALAPAGOS
GAMBIA
GAMBIERAISLAND
GEORGIA
GERMANY
GHANA
GIBRALTAR
GREECE
GREENLAND
GREENLANDTHULE
GREENLANDSCORESBYSUN
GREENWICHMEANTIMEUTC
GRENADA
GRENADINES
GUADELOUPE
GUAM
GUATEMALA
GUINEA
GUINEABISSAU
GUYANA
HAITI
HONDURAS
HONGKONG
HUNGARY
ICELAND
INDIA
INDONESIACENTRAL
INDONESIAEAST
INDONESIAWEST
IRAN
IRAQ

IRELANDREPUBLICOF
ISRAEL
ITALY
JAMAICA
JAPAN
JOHNSTONISLAND
JORDAN
KAZAKHSTAN
KENYA
KIRIBATI
KIRIBATIPHOENIXISLANDS
KOREADEMREPUBLICOF
KOREAREPUBLICOF
KOSRAE
KUWAIT
KWAJALEIN
KYRGYZSTAN
LAOS
LATVIA
LEBANON
LEEWARDISLANDS
LESOTHO
LIBERIA
LIBYA
LIECHTENSTEIN
LITHUANIA
LUXEMBOURG
MACEDONIA
MADAGASCAR
MADEIRA
MALAWI
MALAYSIA
MALDIVES
MALI
MALLORCAISLAND
MALTA
MARIANAISLAND
MARQUESASISLANDS
MARSHALLISLAND

MARTINIQUE
MAURITANIA
MAURITIUS
MAYOTTE
MELILLA
MEXICO
MEXICOBACALIFORNIA
MEXICONAYARIT
MEXICOSINALOA
MEXICOSONORA
MIDWAYISLAND
MOLDOVA
MOLDOVIANREPUBLICOF
MOLUCCAS
MONACO
MONGOLIA
MOROCCO
MOZAMBIQUE
MYANMAR
NAMIBIA
NAURUREPUBLICOF
NEPAL
NETHERLANDS
NETHERLANDSANTILLES
NEVISMONTserrat
NEWCALEDONIA
NEWHEBRIDES
NEWZEALAND
NEWZEALANDTOKELAUISLANDS
NICARAGUA
NIGER
NIGERIA
NIUEISLAND
NORFOLKISLAND
NORTHERNIRELAND
NORTHERNMARIANAIISLANDS
NORTHSUMATRA
NORWAY
OMAN

PAKISTAN
PALAU
PANAMA
PAPUANEGUINEA
PARAGUAY
PERU
PHILIPPINES
PINGELAP
POLAND
PONAPEISLAND
PORTUGAL
PRINCIPEISLAND
PUERTORICO
QATAR
REUNION
ROMANIA
RUSSIANFEDERATIONKALININGRAD
RUSSIANFEDERATIONMOSCOWSTPETERSBURG
RUSSIANFEDERATIONSAMARAZHEVSK
RUSSIANFEDERATIONYEKATERINBURGPERM
RUSSIANFEDERATIONNOVOSIBIRSKOMSK
RUSSIANFEDERATIONKRASNOYARSKTOMSK
RUSSIANFEDERATIONIRKUTSKULANUDE
RUSSIANFEDERATIONCHITAYAKUTSK
RUSSIANFEDERATIONVLADIVOSTOKKHABAROVSK
RUSSIANFEDERATIONMAGADANKOLYMA
RUSSIANFEDERATIONKAMCHATKAANADYR
RWANDA
SABA
SAMOA
SANMARINO
SAOTOMEPRINCIPE
SAUDIARABIA
SCOTLAND
SENEGAL
SEYCHELLES
SIERRALEONE
SINGAPORE
SLOVAKIA

SLOVENIA
SOCIETYISLAND
SOLOMONISLANDS
SOMALIA
SOUTHAFRICA
SOUTHSUMATRA
SPAIN
SRILANKA
STCHRISTOPHER
STCROIX
STHELENA
STJOHN
STKITTNEVIS
STLUCIA
STMAARTEN
STPIERREMIQUELON
STTHOMAS
STVINCENT
SUDAN
SURINAME
SWAZILAND
SWEDEN
SWITZERLAND
SYRIA
TAHITI
TAIWAN
TAJIKISTAN
TANZANIA
THAILAND
TOGO
TONGA
TRINIDADANDTOBAGO
TUAMOTUISLAND
TUBUAIISLAND
TUNISIA
TURKEY
TURKMENISTAN
TURKSANDCAICOSISLANDS
TUVALU

UGANDA
UKRAINE
UNITEDARABEMIRATES
UNITEDKINGDOM
USAEASTERN
USACENTRAL
USAMOUNTAIN
USAARIZONA
USAINDIANAEAST
USAPACIFIC
USAALASKA
USAALEUTIAN
USAHAWAII
URUGUAY
UZBEKISTAN
VANUATU
VATICANCITY
VENEZUELA
VIETNAM
VIRGINISLANDS
WAKEISLAND
WALES
WALLISANDFUTUNAIISLANDS
WESTERNSAHARA
WINDWARDISLANDS
YEMEN
YUGOSLAVIA
ZAIREKINSHASAMBANDAKA
ZAIREKASAI
ZAIREHAUTZAIRE
ZAIREKIVU
ZAIRESHABA
ZAMBIA
ZIMBABWE

Appendix C: AID-to-condition mapping (REPT ALM)

Table C- 1 AID-to-condition mapping (REPT ALM)

| AID | Modifier | Notification | Service Effect | Condition Type |
|---------------------------------|----------|--------------|----------------|----------------|
| C1ADM-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| EQPT | MJ CL | NSA NSA | REPLUNITMEA | |
| CCM-(1,11,21,31)-1 | EQPT | MJ CL | NSA NSA | CONTCOM |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | MJ CL | NSA NSA | REPLUNITMISS |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| | EQPT | MN MJ CL | NSA NSA | SYSUPGRDPROG |
| CDSC-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| CU-(1,11,21,31) | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| CU-(1,11,21,31)-(1-4) | EQPT | MJ CL | NSA NSA | REPLUNITMISS |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| CU-(1,11,21,31)-(1-4) | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| D1ADM-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| D2ADM-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| D4ADM-(1,11,21,31)-(1,3,5...19) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|---|-----------------|---------------------|-----------------------|-----------------------|
| D4MD-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| D32MD1-(1,11,21,31)-(1,3,5...19) D32MD2-(1,11,21,31)-(1,3,5...19) D32MD3-(1,11,21,31)-(1,3,5...19) D32MD4-(1,11,21,31)-(1,3,5...19) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| D32BMD24-(1,11,21,31)-(1,3,5...19) D32BMD42-(1,11,21,31)-(1,3,5...19) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| DLA-(11,21,31)-(1-20) | EQPT | MJ | SA | REPLUNITDEGRADE |
| DLA-(11,21,31)-(1-20)-(L1) | OSC | NR | NSA | CONTCOM-E |
| | OSC | MJ | SA | CONTCOM-S |
| | OSC | MJ | SA | FECI |
| | OSC | MJ | SA | LOLIGHT-RX |
| | OSC | MJ | SA | LOLIGHT-TX |
| | PORT | CR | SA | APSD |
| | PORT | NR | SA | BDI |
| | PORT | NR | SA | PMI |
| | PORT | MJ | NSA | T-LOSSRX-HT |
| | WDM | MN | SA | IAOCB |
| | WDM | MN | SA | IAOCP |
| DLA-(11,21,31)-(1-20)-(L1,C1) | PORT | CR | SA | LOLIGHT-RX |
| | PORT | CR | SA | LOSPEC-RX |
| DLA-(11,21,31)-(1-20)-(L1,C2) | OSC | CR | SA | OBROS |
| DLA-(11,21,31)-(1-20)-(C1) | PORT | CR | SA | POS-RX |
| ES-(11,21,31) | EQPT | MJ CL | NSA NSA | EXPSHCOMDEVICEUNS |
| | EQPT | MJ CL | NSA NSA | EXPSHCOMLNKDWN |
| | EQPT | MJ CL | NSA NSA | EXPSHCOMLOS |
| | EQPT | MJ CL | NSA NSA | FEEDAFAIL |
| | EQPT | MJ CL | NSA NSA | FEEDBFAIL |
| | EQPT | MJ CL | NSA NSA | HITEMP |
| | EQPT | MJ CL | NSA NSA | PWRBRWNT |
| | EQPT | MJ CL | NSA NSA | REPLUNITIDMEA |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| | EQPT | MJ CL | NSA NSA | REPLUNITMISS |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| ESFP-1-5-(1-3) | EQPT | MJ CL | NSA NSA | CONTCOM |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|------------------------------|----------|--------------|----------------|-----------------|
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| IP-(1,11,21,31)-(1-20)-(0-3) | EQPT | MJ CL | NSA NSA | OSCLOS |
| LGA-(1,11,21,31)-(1-20) | EQPT | MN | NSA | CONNMEA |
| MGA-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MN | NSA | REPLUNITMEA |
| LGA-(1,11,21,31)-(1-20)-1 | OA | MN | NSA | AMPCOND |
| MGA-(1,11,21,31)-(1-20)-1 | OA | MN | NSA | GAIN-NA-TX |
| | OA | CR | SA | LOLIGHT-RX |
| | OA | MN | NSA | OBR-HTSO |
| | OA | CR | SA | POS-RX-HIGH |
| | OA | CR | SA | POS-RX-LOW |
| | OA | MN | NSA | PWR-NA-TX |
| | OA | MN | NSA | T-OBR-HT |
| | OA | CR | SA | T-OBR-HTS |
| | OA | MJ | NSA | T-OPR-HT |
| | OA | MJ | NSA | T-OPR-LT |
| | OA | MJ | NSA | T-OPT-HT |
| | OA | MJ | NSA | T-OPT-LT |
| | OA | MN | NSA | TILT-NA-TX |
| MGM-(1,11,21,31)-(1-20) | EQPT | MN | NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MN | NSA | REPLUNITMEA |
| MGM-(1,11,21,31)-(1-20)-1 | OA | MN | NSA | AMPCOND |
| | OA | MN | NSA | GAIN-NA-TX |
| | OA | CR | SA | LOLIGHT-RX |
| | OA | MN | NSA | OBR-HTSO |
| | OA | CR | SA | POS-RX-HIGH |
| | OA | CR | SA | POS-RX-LOW |
| | OA | MN | NSA | PWR-NA-TX |
| | OA | CR | SA | SSI-LOLIGHT-RX |
| | OA | CR | SA | SSI-POS-RX-HIGH |
| | OA | CR | SA | SSI-POS-RX-LOW |
| | OA | MJ | NSA | T-FSOOPT-HT |
| | OA | MJ | NSA | T-FSOOPT-LT |
| | OA | MJ | NSA | T-MSLOSS-HT |
| | OA | MN | NSA | T-OBR-HT |
| | OA | CR | SA | T-OBR-HTS |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|--------------------------------------|-----------------|---------------------|-----------------------|-----------------------|
| | OA | MJ | NSA | T-OPR-HT |
| | OA | MJ | NSA | T-OPR-LT |
| | OA | MJ | NSA | T-OPT-HT |
| | OA | MJ | NSA | T-OPT-LT |
| | OA | MJ | SA | T-SSIOPR-HT |
| | OA | MJ | NSA | T-SSIOPR-LT |
| | OA | MN | NSA | TILT-NA-TX |
| MS-1 | EQPT | MJ CL | NSA NSA | FEEDAFAIL |
| | EQPT | MJ CL | NSA NSA | FEEDBFail |
| | EQPT | MJ CL | NSA NSA | HITEMP |
| | EQPT | MJ CL | NSA NSA | PWRBRWNT |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| | EQPT | MJ CL | NSA NSA | SYSCOM |
| MXP-(1,11,21,31)-(1-20)- (C1-C10) | MXP | NA CL | NSA NSA | LOCKPROG |
| | MXP | CR CL | SA NSA | LOS |
| | MXP | CR CL | SA NSA | LOSYNC |
| | MXP | CR CL | SA NSA | REPLUNITMEA |
| | MXP | MJ CL | NSA NSA | T-OPR-HT |
| | MXP | MJ CL | SA NSA | T-OPR-LT |
| | MXP | MJ CL | NSA NSA | T-OPT-HT |
| | MXP | MJ CL | NSA NSA | T-OPT-LT |
| | MXP | MJ CL | NSA NSA | T-TEMP-HT |
| MXP-(1,11,21,31)-(1-20)- (L1,L2) | MXP | CR CL | SA NSA | LOF |
| | MXP | MJ CL | SA NSA | LOP |
| | MXP | CR CL | SA NSA | LOS |
| | MXP | CR CL | SA NSA | REPLUNITMEA |
| | MXP | CR CL | SA NSA | REPLUNITUS-SFP |
| | MXP | MJ CL | SA NSA | SD |
| | MXP | MJ CL | SA SA | SYNCPRI |
| | MXP | MJ CL | SA SA | SYNCSEC |
| | MXP | MJ CL | NSA NSA | T-OPR-HT |
| | MXP | MJ CL | SA NSA | T-OPR-LT |
| | MXP | MJ CL | NSA NSA | T-OPT-HT |
| | MXP | MJ CL | NSA NSA | T-OPT-LT |
| | MXP | CR CL | SA NSA | UEQ-P |
| | MXP | CR CL | SA | WNA |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|---|-----------------|---------------------|-----------------------|-----------------------|
| MXP-(1,11,21,31)-(1-20)-(L1,L2) (1,2,3,4) | MXP | NR | NSA NSA | ODU1-AIS |
| OBA-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| OBA-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | CR CL | SA SA | OBR-HTSO |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | CR CL | SA SA | T-OBR-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| OLA-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| OLA-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | CR CL | SA SA | OBR-HTSO |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | CR CL | SA SA | T-OBR-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| OLAM-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| OLAM-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | CR CL | SA SA | OBR-HTSO |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|--|-----------------|---------------------|-----------------------|-----------------------|
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| | OA | MJ CL | NSA NSA | T-MSLOSS-HT |
| | OA | CR CL | SA SA | T-OBR-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA SA | T-SSIOPR-HT |
| OPA-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| OPA-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| PVX-(1,11,21,31)-(1,3,5... 19)-(G1-G24) | GE | CR CL | SA | LOS |
| | GE | CR CL | SA | LOSYNC |
| PVX-(1,11,21,31)-(1,3,5... 19)-(G1-G24)-(X1-X4) | GE | CR CL | SA | REPLUNITMEA |
| | XFP | | | |
| | GE | CR CL | SA | REPLUNITMISS |
| | XFP | | | |
| | GE | MJ CL | NSA | T-OPR-HT |
| | XFP | | | |
| | GE | MJ CL | NSA | T-OPR-LT |
| | XFP | | | |
| | GE | MJ CL | NSA | T-OPT-HT |
| | XFP | | | |
| | GE | MJ CL | NSA | T-OPT-LT |
| | XFP | | | |
| | | | | |
| PVX-(1,11,21,31)-(1,3,5... 19)-(X1-X4) | XFP | MJ CL | NSA | WNA |
| PVX-(1,11,21,31)-(1,3,5... 19)-(X1-X8) | XFP | MN | NSA | AIS-L |
| | XFP | MN | NSA | AIS-P |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|---|----------|--------------|----------------|-----------------|
| | XFP | NA | NSA | BDI |
| | XFP | CR | SA | LOF |
| | XFP | CR | SA | LOP-P |
| | XFP | CR | SA | LOS |
| | XFP | CR | SA | LOSYNC |
| | XFP | CR | SA | OTNPLM |
| | XFP | NA | NSA | OTUTTI |
| | XFP | CR | SA | PLM-P |
| | XFP | NA | NSA | RDI-L |
| | XFP | NA | NSA | RDI-P |
| | XFP | MN | NSA | SD |
| ROB-(11,21,31)-(1, 3, 5...19) | EQPT | MJ | SA | REPLUNITDEGRADE |
| ROB-(11,21,31)-(1, 3, 5...19)-(L1) | OSC | NR | NSA | CONTCOM-E |
| | OSC | MJ | SA | CONTCOM-S |
| | OSC | MJ | SA | FECI |
| | OSC | MJ | SA | LOLIGHT-RX |
| | OSC | MJ | SA | LOLIGHT-TX |
| | PORT | CR | SA | APSD |
| | PORT | NR | SA | BDI |
| | PORT | MJ | SA | CHNDFC |
| | PORT | NR | SA | PMI |
| | PORT | MJ | NSA | T-LOSSRX-HT |
| | WCH | NR | NSA | AIS-O |
| | WCH | CR | SA | UNEQ-O |
| | WDM | MN | SA | IAOCB |
| | WDM | MN | SA | IAOCM |
| | WDM | MN | SA | IAOCP |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C1,C2) | WCH | CR | SA | LOLIGHT-TX |
| | WCH | CR | SA | POS-TX |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C1,C2,DCM) | PORT | CR | SA | LOLIGHT-RX |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C2,DCM) | OSC | CR | SA | OBROS |
| | PORT | CR | SA | LOSPEC-RX |
| ROB-(11,21,31)--(1, 3, 5...19)-(C1,C2) | WCH | CR | SA | LOLIGHT-RX |
| | WCH | MJ | SA | POS-RX |
| SBA-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|-------------------------------|-----------------|---------------------|-----------------------|-----------------------|
| SBA-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | CR CL | SA SA | OBR-HTSO |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | CR CL | SA SA | T-OBR-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| SCP-1-3 | EQPT | MJ MN CL | NSA NSA NSA | CUFEEDFAIL |
| SCP-1-(1,3,5) | EQPT | MJ CL | NSA NSA | DBRECVRYFAIL |
| | EQPT | MJ CL | NSA NSA | DBRSTPROG |
| | EQPT | MJ CL | NSA NSA | PACKUPGRDFAIL |
| | EQPT | MJ CL | NSA NSA | RELNUMMEA |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| | EQPT | MJ CL | NSA NSA | SCPRNCHGPROG |
| | EQPT | MJ CL | NSA NSA | SWBNKAFAIL |
| | EQPT | MJ CL | NSA NSA | SWBNKBFAIL |
| | EQPT | MN MJ CL | NSA NSA | SYSUPGRDPROG |
| SFP-(1,11,21,31)-(1-20)-(1-4) | EQPT | MJ CL | NSA NSA | CONTCOM |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | CR CL | SA NSA | REPLUNITMISS |
| | EQPT | MN CL | SA SA | REPLUNITUNK |
| SH-(1) | EQPT | MJ CL | NSA NSA | FEEDAFAIL |
| | EQPT | MJ CL | NSA NSA | FEEDBFAIL |
| | EQPT | MJ CL | NSA NSA | PWRBRWNT |
| SI-1 | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | MJ CL | NSA NSA | REPLUNITMISS |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| SI-(11,21,31) | EQPT | MN CL | NSA NSA | CONTCOM |
| | EQPT | MN CL | NSA NSA | PACKUPGRDFAIL |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | CR MJ CL | SA NSA NSA | REPLUNITMISS |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| | EQPT | MN CL | NSA NSA | UPGRDPROG |
| SLOT-(1,11,21,31)-(1-20) | EQPT | MJ CL | NSA NSA | CONTCOM |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|-------------------------------|----------|--------------|----------------|----------------|
| | EQPT | CR | SA | DISKUSAGEHI |
| | EQPT | MJ | NSA | FEEDAFUSEFAIL |
| | EQPT | MJ | NSA | FEEDBFUSEFAIL |
| | EQPT | MJ | NSA | HTASUNS |
| | EQPT | MJ CL | NSA NSA | PACKUPGRDFAIL |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | CR | SA | REPLUNITHTAS |
| | EQPT | CR MJ CL | SA NSA NSA | REPLUNITMISS |
| | EQPT | CR | SA | REPLUNITPWR |
| | EQPT | MJ CL | NSA NSA | REPLUNITUNK |
| | XCVR | MJ CL | NSA NSA | T-TEMP-HT |
| | EQPT | MJ | NSA | T-REPLUNIT-HT |
| | EQPT | CR | SA | T-REPLUNIT-HTS |
| | EQPT | MN CL | NSA NSA | UPGRDPROG |
| SLOT-(11,21,31)-5 | EQPT | MJ CL | NSA NSA | REPLUNITUNS |
| SMF20-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| SMF40-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| SMF60-(1,11,21,31)-(1-20) | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| SPA-(1,11,21,31)-(1-20) | EQPT | MN CL | NSA NSA | CONNMEA |
| | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| SPA-(1,11,21,31)-(1-20)-1 | OA | MN CL | NSA NSA | AMPCOND |
| | OA | MJ CL | NSA NSA | T-CTEMP-HT |
| | OA | CR CL | SA SA | T-CTEMP-HTS |
| | OA | MJ CL | NSA NSA | T-OPR-HT |
| | OA | MJ CL | NSA NSA | T-OPR-LT |
| | OA | MJ CL | NSA NSA | T-OPT-HT |
| | OA | MJ CL | NSA NSA | T-OPT-LT |
| | OA | CR CL | SA NSA | T-LTEMP-HTS |
| | OA | CR CL | SA NSA | T-LTEMP-LTS |
| TPR-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| TPR-(1,11,21,31)-(1-20)-(1-4) | XCVR | NR | NSA | FRCDWKS WPR |
| | XCVR | NR | NSA | FRCDWKS WBK |
| | XCVR | NR | NSA | LOCKOUTOFWK |
| | XCVR | NR | NSA | LOCKOUTOFPR |
| | XCVR | CR CL | NSA NSA | LOF |
| | XCVR | CR CL | SA NSA | LOS |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|------------------------------|-----------------|---------------------|-----------------------|-----------------------|
| | XCVR | CR CL | SA NSA | LOSYNC |
| | XCVR | NR | NSA | LPBK |
| | XCVR | CR CL | NSA NSA | REPLUNITMEA |
| | XCVR | MJ CL | NSA NSA | T-OPR-HT |
| | XCVR | MJ CL | NSA NSA | T-OPR-LT |
| | XCVR | MJ CL | NSA NSA | T-OPT-HT |
| | XCVR | MJ CL | NSA NSA | T-OPT-LT |
| | XCVR | CR CL | SA | WNA |
| USER | SECU | MN CL | NSA NSA | IPLCKOUT |
| | SECU | MN CL | NSA NSA | USRLCKOUT |
| WM-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| WM-(1,11,21,31)-(1-20)-(1-4) | XCVR | CR CL | NSA NSA | LOF |
| | XCVR | CR CL | SA NSA | LOS |
| | XCVR | NR | NSA | LPBK |
| | XCVR | CR CL | NSA NSA | REPLUNITMEA |
| | XCVR | MJ CL | NSA NSA | T-OPR-HT |
| | XCVR | MJ CL | NSA NSA | T-OPR-LT |
| | XCVR | MJ CL | NSA NSA | T-OPT-HT |
| | XCVR | MJ CL | NSA NSA | T-OPT-LT |
| WR-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |
| | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| WR-(1,11,21,31)-(1-20)-(1-4) | XCVR | NR | NSA | FRCDWKSWPR |
| | XCVR | NR | NSA | FRCDWKSWBK |
| | XCVR | NR | NSA | LOCKOUTOFWK |
| | XCVR | NR | NSA | LOCKOUTOFPR |
| | XCVR | CR CL | SA NSA | LOF |
| | XCVR | CR CL | SA NSA | LOL |
| | XCVR | CR CL | SA NSA | LOS |
| | XCVR | CR CL | SA NSA | LOSYNC |
| | XCVR | NR | NSA | LPBK |
| | XCVR | CR CL | NSA NSA | REPLUNITMEA |
| | XCVR | MJ CL | NSA NSA | T-OPR-HT |
| | XCVR | MJ CL | NSA NSA | T-OPR-LT |
| | XCVR | MJ CL | NSA NSA | T-OPT-HT |
| | XCVR | MJ CL | NSA NSA | T-OPT-LT |
| | XCVR | MJ CL | NSA NSA | WNA |
| WT-(1,11,21,31)-(1-20) | EQPT | MN | NSA | INVPROV |

Table C- 1 AID-to-condition mapping (REPT ALM) (Continued)

| AID | Modifier | Notification | Service Effect | Condition Type |
|------------------------------|-----------------|---------------------|-----------------------|-----------------------|
| WT-(1,11,21,31)-(1-20)-(1-4) | EQPT | MJ CL | NSA NSA | REPLUNITMEA |
| | XCVR | CR CL | SA NSA | LOS |
| | XCVR | NR | NSA | LPBK |
| | XCVR | CR CL | NSA NSA | REPLUNITMEA |
| | XCVR | MJ CL | NSA NSA | T-OPR-HT |
| | XCVR | MJ CL | NSA NSA | T-OPR-LT |
| | XCVR | MJ CL | NSA NSA | T-OPT-HT |
| | XCVR | MJ CL | NSA NSA | T-OPT-LT |
| XFP-(1,11,21,31)-(1-20)-(2) | EQPT | MJ CL | NSA NSA | CONTCOM |
| | EQPT | CR CL | SA NSA | REPLUNITFAIL |
| | EQPT | MN CL | SA SA | REPLUNITUNK |

Appendix D: AID-to-event mapping (REPT EVT)

Table D- 1 AID-to-event mapping (REPT EVT)

| AID | Modifier | Condition Type |
|------------------------------------|----------|----------------|
| C1ADM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| C1ADM-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| C1ADM-(1,11,21,31)-(1-20)-1-P | PORT | AUTOPROVFAIL |
| C1ADM-(1,11,21,31)-(1-20)-1-(1-9) | PORT | AUTOPROVFAIL |
| CCM-(1,11,21,31)-1 | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| | EQPT | SYSLOADFAIL |
| | EQPT | SYSLOADPASS |
| | EQPT | SYSUPGRDFAIL |
| | EQPT | SYSUPGRDPASS |
| CDSC-(1,11,21,31)-(1-20) | EQPT | SCPRNCHGPASS |
| CDSC-(1,11,21,31)-(1-20)-1 | EQPT | SYSCHKFAIL |
| CDSC-(1,11,21,31)-(1-20)-1-C | EQPT | SYSCHKPASS |
| CDSC-(1,11,21,31)-(1-20)-1-D | EQPT | SYSLOADFAIL |
| CS-(1,11,21,31)-(1-20) | EQPT | SYSLOADPASS |
| CS-(1,11,21,31)-(1-20)-(1,2) | EQPT | SYSUPGRDFAIL |
| CS-(1,11,21,31)-(1-20)-(1,2)-(1-9) | EQPT | SYSUPGRDPASS |
| CS-(1,11,21,31)-(1-20)-(1,2)-D | PORT | AUTOPROVFAIL |
| CU-(1,11,21,31) | EQPT | REPLUNITPLUGIN |
| CU-(1,11,21,31)-(1-4) | EQPT | REPLUNITUNPLUG |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|---|-----------------|-----------------------|
| D1ADM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| D1ADM-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| D1ADM-(1,11,21,31)-(1-20)-1-P | PORT | AUTOPROVFAIL |
| D1ADM-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| D2ADM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| D2ADM-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| D2ADM-(1,11,21,31)-(1-20)-1-P | PORT | AUTOPROVFAIL |
| D2ADM-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| D4ADM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| D4ADM-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| D4ADM-(1,11,21,31)-(1-20)-1-P | PORT | AUTOPROVFAIL |
| D4ADM-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| D32MD1-(1,11,21,31)-(1,3,5...19) | EQPT | AUTOPROVFAIL |
| D32MD1-(1,11,21,31)-(1,3,5...19)-1 | PORT | AUTOPROVFAIL |
| D32MD1-(1,11,21,31)-(1,3,5...19)-1-E | PORT | AUTOPROVFAIL |
| D32MD1-(1,11,21,31)-(1,3,5...19)-1-(1-32) | PORT | AUTOPROVFAIL |
| D32MD2-(1,11,21,31)-(1,3,5...19) | EQPT | AUTOPROVFAIL |
| D32MD2-(1,11,21,31)-(1,3,5...19)-1 | PORT | AUTOPROVFAIL |
| D32MD2-(1,11,21,31)-(1,3,5...19)-1-E | PORT | AUTOPROVFAIL |
| D32MD2-(1,11,21,31)-(1,3,5...19)-1-(1-32) | PORT | AUTOPROVFAIL |
| D32MD3-(1,11,21,31)-(1,3,5...19) | EQPT | AUTOPROVFAIL |
| D32MD3-(1,11,21,31)-(1,3,5...19)-1 | PORT | AUTOPROVFAIL |
| D32MD3-(1,11,21,31)-(1,3,5...19)-1-E | PORT | AUTOPROVFAIL |
| D32MD3-(1,11,21,31)-(1,3,5...19)-1-(1-32) | PORT | AUTOPROVFAIL |
| D32MD4-(1,11,21,31)-(1,3,5...19) | EQPT | AUTOPROVFAIL |
| D32MD4-(1,11,21,31)-(1,3,5...19)-1 | PORT | AUTOPROVFAIL |
| D32MD4-(1,11,21,31)-(1,3,5...19)-1-E | PORT | AUTOPROVFAIL |
| D32MD4-(1,11,21,31)-(1,3,5...19)-1-(1-32) | PORT | AUTOPROVFAIL |
| DLA-(11,21,31)-(1-20) | EQPT | REPLUNITDEGRADE |
| DLA-(11,21,31)-(1-20)-(L1) | OSC | CONTCOM-E |
| | OSC | CONTCOM-S |
| | OSC | FECI |
| | OSC | LOLIGHT-RX |
| | OSC | LOLIGHT-TX |
| | PORT | APSD |
| | PORT | BDI |
| | PORT | PMI |
| | PORT | T-LOSSRX-HT |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|---|-----------------|-----------------------|
| | WDM | IAOCB |
| | WDM | IAOCP |
| DLA-(11,21,31)-(1-20)-(L1,C1) | PORT | LOLIGHT-RX |
| | PORT | LOSPEC-RX |
| DLA-(11,21,31)-(1-20)-(L1,C2) | OSC | OBROS |
| DLA-(11,21,31)-(1-20)-(C1) | PORT | POS-RX |
| ES-(11,21,31) | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| | EQPT | AUTOPROVFAIL |
| ESFP-1-5-(1,2,3) | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| ESFP-(11,21,31)-1 | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| IP-1-1-(1,2) | IP | AUTOPROVFAIL |
| IP-1-5-(1,2) | | |
| LGA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| LGA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| MGA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| MGA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| MGM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| MGM-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| MS-1 | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| MXP-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| | EQPT | SYNCSWITCH |
| MXP-(1,11,21,31)-(1-20)-(L1,L2,C1,C2) | PORT | AUTOPROVFAIL |
| MXP-(1,11,21,31)-(1-20)-(L1,L2,C1,C2)- (1-48) | VC | AUTOPROVFAIL |
| MXP-(1,11,21,31)-(1-20)-(L1,L2,C1,C2)-ALL | VC | AUTOPROVFAIL |
| OBA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| OBA-(1,11,21,31)-(1-20)-1 | OA | AMPTRANS |
| OBA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| OLA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| OLA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| OLAM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| OLAM-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| OPA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| OPA-(1,11,21,31)-(1-20)-1 | OA | AMPTRANS |
| OPA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|---|-----------------|-----------------------|
| OSC-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| ROB-(11,21,31)-(1, 3, 5...19) | EQPT | REPLUNITDEGRADE |
| ROB-(11,21,31)-(1, 3, 5...19)-(L1) | OSC | CONTCOM-E |
| | OSC | CONTCOM-S |
| | OSC | FECI |
| | OSC | LOLIGHT-RX |
| | OSC | LOLIGHT-TX |
| | PORT | APSD |
| | PORT | BDI |
| | PORT | CHNDFC |
| | PORT | PMI |
| | PORT | T-LOSSRX-HT |
| | WCH | AIS-O |
| | WCH | UNEQ-O |
| | WDM | IAOCB |
| | WDM | IAOCM |
| | WDM | IAOCP |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C1,C2) | WCH | LOLIGHT-TX |
| | WCH | POS-TX |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C1,C2,DCM) | PORT | LOLIGHT-RX |
| ROB-(11,21,31)--(1, 3, 5...19)-(L1,C2,DCM) | OSC | OBROS |
| | PORT | LOSPEC-RX |
| ROB-(11,21,31)--(1, 3, 5...19)-(C1,C2) | WCH | LOLIGHT-RX |
| | WCH | POS-RX |
| ROB2-(11,21,31)--(1, 3, 5...19)-(C2) | PORT | CNXMEA |
| ROB4-(11,21,31)--(1, 3, 5...19)-(C2 to C4) | | |
| ROB2-(11,21,31)--(1, 3, 5...19)-(C2) | PORT | CNXVLDTMOUT |
| ROB4-(11,21,31)--(1, 3, 5...19)-(C2 to C4) | | |
| SBA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SBA-(1,11,21,31)-(1-20)-1 | OA | AMPTRANS |
| SBA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| SCP-1-(1,3,5) | EQPT | APPLDBRSTPASS |
| | EQPT | DBBKUPFAIL |
| | EQPT | DBBKUPPASS |
| | EQPT | DBLOADFAIL |
| | EQPT | DBRECVRYFAIL |
| | EQPT | INVKDBRSTFAIL |
| | EQPT | INVKDBRSTPASS |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|------------------------------------|----------|----------------|
| | EQPT | SCPRNCHGFAIL |
| | EQPT | SCPRNCHGPASS |
| | EQPT | SYSCHKFAIL |
| | EQPT | SYSCHKPASS |
| | EQPT | SYSLOADFAIL |
| | EQPT | SYSLOADPASS |
| | EQPT | SYSUPGRDFAIL |
| | EQPT | SYSUPGRDPASS |
| SFP-(1,11,21,31)-(1-20)-(1-4) | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| SI-(11,21,31) | EQPT | UPGRDPROG |
| | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| SLOT-(1,11,21,31)-(1-20) | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |
| SMF20-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SMF20-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| SMF40-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SMF40-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| SMF40-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| SMF60-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SMF60-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| SMF60-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| SMF80-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SMF80-(1,11,21,31)-(1-20)-1 | PORT | AUTOPROVFAIL |
| SMF80-(1,11,21,31)-(1-20)-1-(1-32) | PORT | AUTOPROVFAIL |
| SPA-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| SPA-(1,11,21,31)-(1-20)-1 | OA | AMPTRANS |
| SPA-(1,11,21,31)-(1-20)-1 | OA | AUTOPROVFAIL |
| TPR-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|-------------------------------|-----------------|-----------------------|
| TPR-(1,11,21,31)-(1-20)-(1-4) | XCVR | AUTOPROVFAIL |
| | XCVR | LPBK |
| | XCVR | RFI |
| | XCVR | WKSWPR |
| | XCVR | WKSWBK |
| | XCVR | MANWKSWPR |
| | XCVR | MANWKSWBK |
| | XCVR | FRCDMANWKSWPR |
| | XCVR | FRCDMANWKSWBK |
| | XCVR | T-CVS |
| | XCVR | T-ESS |
| | XCVR | T-SEFS-S |
| | XCVR | T-SESS |
| USER | USER | SESSION |
| WM-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| WM-(1,11,21,31)-(1-20)-(1-4) | XCVR | AUTOPROVFAIL |
| | XCVR | LPBK |
| | XCVR | T-CVS |
| | XCVR | T-ESS |
| | XCVR | T-SEFS-S |
| | XCVR | T-SESS |
| WR-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| WR-(1,11,21,31)-(1-20)-(1-4) | XCVR | AUTOPROVFAIL |
| | XCVR | LPBK |
| | XCVR | RFI |
| | XCVR | WKSWPR |
| | XCVR | WKSWBK |
| | XCVR | MANWKSWPR |
| | XCVR | MANWKSWBK |
| | XCVR | FRCDMANWKSWPR |
| | XCVR | FRCDMANWKSWBK |
| | XCVR | LOCKOUTOFWK |
| | XCVR | LOCKOUTOFPR |
| | XCVR | T-CVS |
| | XCVR | T-ESS |
| | XCVR | T-INVBLK |
| | XCVR | T-SEFS |
| | XCVR | T-SESS |

Table D- 1 AID-to-event mapping (REPT EVT) (Continued)

| AID | Modifier | Condition Type |
|------------------------------|-----------------|-----------------------|
| WT-(1,11,21,31)-(1-20) | EQPT | AUTOPROVFAIL |
| WT-(1,11,21,31)-(1-20)-(1-4) | XCVR | AUTOPROVFAIL |
| | XCVR | LPBK |
| | XCVR | RFI |
| XFP-(1,11,21,31)-(1-20)-(2) | EQPT | REPLUNITPLUGIN |
| | EQPT | REPLUNITUNPLUG |

Appendix E: Special characters

The following are considered to be special characters:

! # \$ % & ' () + - . = @ [] ^ _ ` { } ~ " * , / : ; < > ? \ |

Not all of the above special characters are supported for TL1 entry on the BTI 7000 Series. In general, the following special characters are not supported:

" * , / : ; < > ? \ |

Note Special character restrictions for passwords are based on the standards for TL1 (Transaction Language 1), and differ from the password restrictions that are based on the standards for CLI (command-line interface).

Special characters in FTP/SFTP passwords

FTP/SFTP passwords have different restrictions. The following special characters are not allowed to be used when specifying FTP/SFTP passwords in TL1:

" ' , / ? : ;

Note The @ symbol can be used as a separator in some passwords as follows: <userid>:<password>@<IP address>. However, some FTP/SFTP servers cannot handle the @ symbol, and its use should be avoided in FTP/SFTP passwords.



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