Total Access OPTI-3 Controller Module Installation and Maintenance Practice

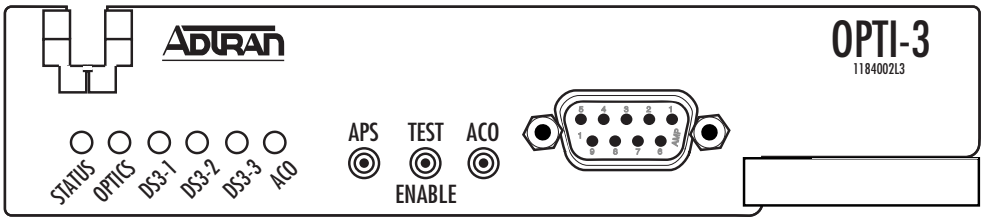


Figure 1. OPTI-3 Controller Module

CONTENTS

FIGURES

TABLES

1. GENERAL

This practice provides installation and maintenance procedures for the Total Access® OPTI-3 Controller Module (OCM), illustrated in **Figure 1**.

Revision History

This is the second release of this document. This document was revised to explain modifications in the OPTI-3 Controller Module software and provisioning options. This I&M reflects functionality of System Release 1.3 (Dseries) firmware. The menus and functionality are an extension of the prior system release (OPTI-3 System Release 1.2 - Cseries). Dseries firmware is not compatible with System Release 1.1 (Bseries).

Description

The Total Access OPTI-3 Controller Module, P/N 1184002L3, provides 3 electrical DS3 drops from a single or redundant OC-3 interface when used with an OPTI-3 chassis. The OCM front panel is shown in Figure 1. The OCM may be installed in either a Rackmount Chassis (RMC), P/N 1184003L1, or a Wallmount Chassis (WMC), P/N 1184001L1.

Features

The OPTI-3 Controller Module features include the following:

NOTE

There are two chassis that can house the OPTI-3 Controller Module, an RMC and a WMC. See **Figure 2** and **Figure 3** respectively. Some of the following features are available only when installing the OCM in a specific chassis. If a feature is chassis specific, it is noted.

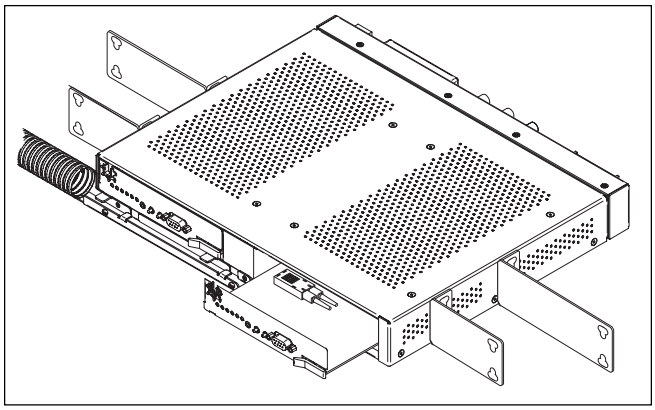


Figure 2. OPTI-3 Rackmount Chassis

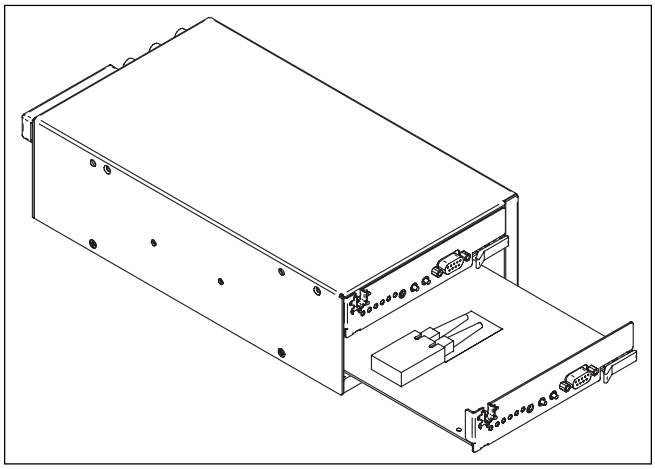


Figure 3. OPTI-3 Wallmount Chassis

- SONET OC-3LR-1 optical interface
  - Rate: 155.52 Mb/s
  - Span length: Long Reach, 40 km
  - Wavelength: 1310nm (nominal)

NOTE

The OPTI-3 is an LR (long reach) optical product. When interfacing with IR (intermediate reach) 3rd party equipment, the optical receive signal may need to be padded to avoid overloading the optical receive signal. The receive signal level should be within −8 dbm to −28 dbm for IR equipment.

- Dual SC optical connections
- Framing, multiplexing and mapping compliant with SONET standards
- OC-3 facility and equipment loopback
- Detects and indicates standard optical and SONET related alarms and conditions
- SONET level performance monitoring
- SONET line protection switching
- 1+1 equipment and facility protection for optical network interface
- 1:1 equipment protection for optical network interface
- Maximum 60ms protection switching time (OC-3 to low speed interface)
- Board-mounted manual APS control switch
- Provide three Clear Channel DS3 Signals (via BNC connectors)
- Two external DS1 BITS clock interfaces
- Three sense points including AUX1, AUX2, and AUX3
- Fully hot swappable
- External BITS, line, or free-run timing modes
- SONET Minimum Clock (SMC) with +/– 20 ppm accuracy
- OAM&P via data communication over Section DCC channel
- Support SONET section DCC bridging
- Support for OSI/IP Tunnelling
- Controller cards Cross Copy Communication Link
- OAM&P interface via craft interface (DB-9)
- TL1, Telnet, SNMP, and TFTP over Ethernet
- Supports Software downloads locally via craft interface (DB-9) and TFTP over Ethernet or OSI Tunnel.
- TL1 management support
- Supports TL1-based GUI network management interface
- Provides 3 DS3 interfaces
- Software-controlled DS3 Transmit Level Control
- Automatic Receive Equalization
- Software-controlled Remote and Local DS3 Loopback capability
- Monitors incoming Receive Signal for LOS (Loss Of Signal)
- Monitors the Receive Analog and Digital LOS
- Monitors Transmit Output signal for drive failure
- LED status indicators:
  - Board Status (Power/Fail)
  - Optic Status (LOL, LOF, etc.)
  - DS3 #1 Status
  - DS3 #2 Status
  - DS3 #3 Status
  - ACO
- External ACO input (RMC only)

- Three audible alarm outputs including Critical, Major, and Minor (RMC only)
- Three visual alarm outputs including Critical, Major, and Minor (RMC only)
- –20 VDC to –60 VDC input voltage range
- +20 VDC to +60 VDC input voltage range
- Power consumption between 7 and 10 watts (typical) per OCM
- Operating temperature range of –40°C to +65°C (installed in RMC)
- Operating temperature range of –40°C to +50°C (installed in WMC)
- Storage temperature range –40°C to +85°C
- Relative humidity up to 95 percent, noncondensing
- NEBS Level 3, GR-1089-CORE, GR-63-CORE and UL 60950 compliant
- Meets applicable optical and SONET standards (GR-253, T1.101, T1.105.xx)

2. INSTALLATION

CAUTION!
SUBJECT TO ELECTROSTATIC DAMAGE OR DECREASE IN RELIABILITY.
HANDLING PRECAUTIONS REQUIRED.

After unpacking the unit, inspect it for damage. If damage is noted, file a claim with the carrier, then contact ADTRAN® Customer Service. Refer to the *Warranty and Customer Service* section of this practice.

Compliance

Table 1 provides the compliance codes for the Total Access OPTI-3 Controller Module. The OCM complies with the requirements covered under UL 60950, and is intended for installation in restricted access locations only in Type "B" or "E" Enclosures.

Table 1. Compliance Codes

Code	Input	Output
Power Code (PC)	F	C
Telecommunication Code (TC)	–	–
Installation Code (IC)	A	–

WARNING

The 10/100baseT interface and DS3 interfaces MUST NOT be metallically connected to interfaces which connect to the Outside Plant or its wiring. These interfaces are designed for use as intra-building interfaces only. The addition of Primary Protectors is not sufficient protection in order to connect these interfaces metallically to OSP wiring.

NOTE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

Changes or modifications not approved by ADTRAN could void the user's authority to operate this equipment.

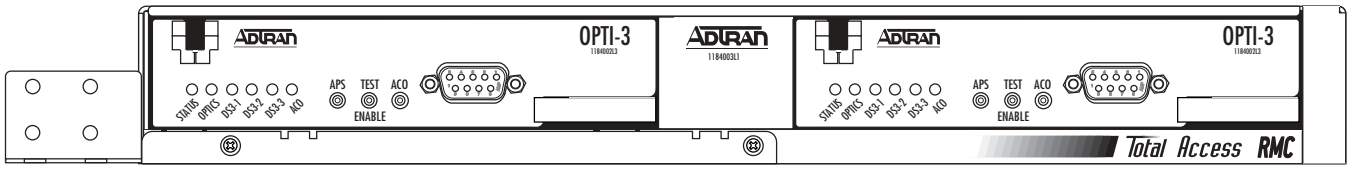
NOTE

The Installation instructions found in the text below are written under the assumption that either the Total Access OPTI-3 rackmount or wallmount chassis (P/N 1184003L1 and 1184001L1 respectively) have been properly installed (including power, alarm, and data connections).

The OCM plugs directly into the Total Access OPTI-3 RMC or WMC. Both chassis provide two OCM slots.

Fiber Connection and Physical Installation

The Total Access OPTI-3 RMC provides two OCM slots that are side by side. See **Figure 4**. The left slot is slot A and the right slot is slot B. The Total Access



Slot A (working card) **Slot B (protect card)**

Figure 4. OPTI-3 RMC

OPTI-3 WMC also provides two OCM slots, but the slots are positioned so that one OCM is above the other. The bottom slot is slot A and the top is slot B. See **Figure 5**. Install the appropriate Total Access OPTI-3 chassis before performing the OCM installation. A Job Aid is shipped with each chassis. The Job Aid provides information and installation instructions concerning the Total Access OPTI-3 WMC or RMC respectively. The part number for the WMC Job Aid is 61184001L1-22 and the part number for the RMC Job Aid is 61184003L1-22.

Carefully insert the OCM approximately half way into the selected slot. Route the fiber through the notch on the front panel of the OCM and approximately 4 inches past the SC receptacles (this will create slack). Continue to keep the slack in the fiber optic cable, and make the connection by gently inserting the SC connectors into the receptacles. See **Figure 6**.

Verify that the cable will not be pinched and then gently push the OCM about three quarters of the way into the slot. This will remove most of the slack in the fiber optic cable. Make sure that the cable is situated in such a manner that it will be free when the card is removed.

WARNING

If power is connected to the chassis, once the module is inserted fully into the chassis, it will be powered.

Gently but firmly push the module all the way into the chassis and push the latch/ejector tab toward the front panel.

If installing into the RMC, route the fiber optic cable from the notch in the OCM down the length of the fiber routing tray to the innerduct, making sure that the fiber is beneath the tabs.

When the OCM first powers up, it performs a self-test. During the self-test, all of the front panel LEDs will illuminate yellow for approximately 8 seconds. The self-test is complete once the STATUS LED illuminates GREEN, indicating a successful self-test. At this point, the LEDs on the front panel reflect the true state of the hardware.

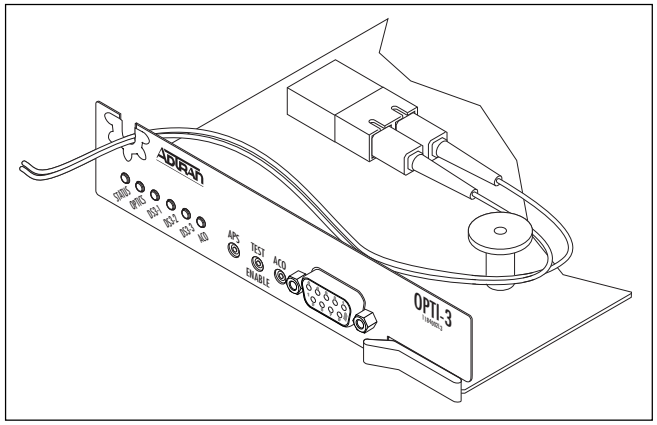


Figure 6. Fiber Connection to the OPTI-3

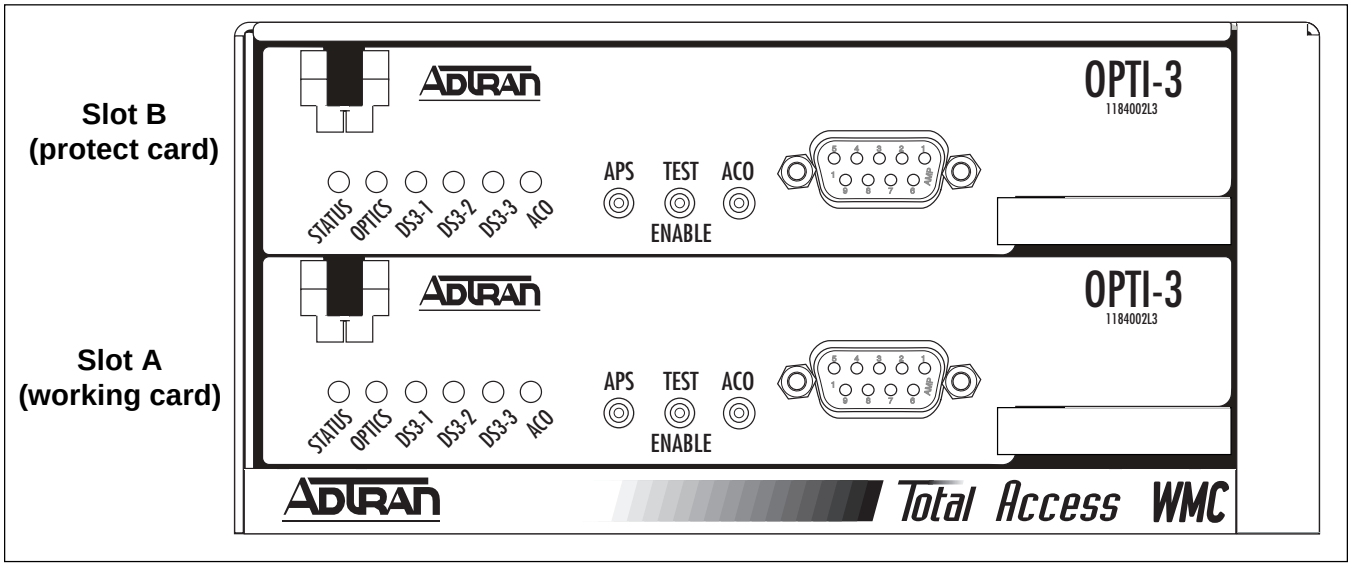


Figure 5. OPTI-3 WMC

If the OPTI-3 System is to be configured as a redundant system, repeat the preceding procedure for the OCM for slot B. If the OPTI-3 System is to be configured as a non-redundant system, a blank front panel (P/N 1184005L1) must be installed in the empty slot to meet NEBS Level 3 requirements.

Initial Installation Provisioning Options

Upon initial installation of the OCM, the unit will be provisioned according to factory default settings. See **Table 2** for a list of all available options and the corresponding default provisioning options (listed in boldface type).

All provisioning will be performed through menus provided by the OCM via one of the available user interfaces (see User/Supervisory Interface in the Operation section of this practice). There are no onboard DIP switches or jumpers. The unit will retain provisioning data in a nonvolatile memory device in case of a loss of power to the module.

Linked Provisioning

If the OCM being installed is the standby unit the provisioning settings of the online unit will be written to the standby unit. Linked Provisioning is always enabled. The OCM Service State is not linked and must be provisioned separately for each OCM.

3. OPERATION

The Total Access OPTI-3 Controller Module provides an OC-3 interface to the network and three ADD/DROP DS3 interfaces to the Loop. The OPTI-3 operates in terminal mode only. The OCM may be installed in a Rackmount Chassis (RMC), P/N 1184003L1, or Wallmount Chassis (WMC), P/N 1184001L1. Both chassis will accept either one OCM for non-redundant operation or two OCMs for redundant operation.

OC-3 Interface

Physical connection to the network is accomplished via Dual SC receptacles on the OCM unit. Signal specifications are as follows:

- Fiber Type: Single mode
- Wavelength: 1310 nm
- Optical Budget: 29 dB (minimum)
- Transmit Level: 0 dBm to –5 dBm
- Receive Level: –10 dBm to –34 dBm

Automatic Protection Switching

Automatic Protection Switching (APS) is available when two OCMs are installed in the same OPTI-3 chassis and properly connected to redundant optical devices at the other end of the loop. APS is a function of the OCM that allows an automatic switch to the offline OCM in the event of an optical signal failure or degradation. Optical signal failure or degradation may be caused by a variety of events, including, but not limited to, optical cable damage, equipment failure, power failure, or equipment being removed from a shelf.

Signal degradation and signal failure thresholds may be set and changed using the provisioning menu provided by the OPTI-3, or by using SNMP or TL1 commands. Protection switching events are based on the signal quality declining past either aforementioned threshold. APS is non-revertive. The online functionality of the secondary OCM will not switch to the primary OCM upon improvement of the signal quality for the primary OCM, but will only switch if an event occurs which adversely affects the signal quality detected by the secondary OCM. Additional information concerning signal degradation thresholds and signal failure thresholds is provided in the *Menu Structure* section of this document.

If the OPTI-3 is configured to operate in a redundant mode, the offline fiber is operable, APS is not inhibited, the offline OC-3 equipment is working properly on both ends of the circuit, and the offline OCM is not in the Out of Service-Unassigned state, a protection switch will occur within 60 ms of detecting one or more of the following conditions:

1. OC-3 Loss of Signal
2. OC-3 Loss of Frame.
3. OC-3 Line AIS
4. OC-3 Signal Fail
5. OC-3 Signal Degrade
6. STS-1 Loss Of Pointer
7. STS-1 AIS
8. STS-1 Signal Label Mismatch
9. Equipment fault affecting the OCM
10. Removal of OC-3 equipment

The OPTI-3 can also be switched manually by an operator via the front panel APS switch, menu access, SNMP, or TL1 messages.

Table 2. Provisioning Menu Options

Menu Selections	Available Options (default in bold)
1. Working Service State	**1. In Service** 2. Out of Service, Maintenance 3. Out of Service, Unassigned
2. Protect Service State	**1. In Service** 2. Out of Service, Maintenance 3. Out of Service, Unassigned
3. Signal Failure Threshold	**1. 10 E-3** 2. 10 E-4 3. 10 E-5
4. Signal Degradation Threshold	**1. 10 E – 5** 2. 10 E – 6 3. 10 E – 7 4. 10 E – 8 5. 10 E – 9
5. OC-3 Transmission Sync Message	**1. Derive From Source** 2. Don't Use
6. Clock Source	**1. Receive OC-3 A and B** 2. Receive OC-3 A 3. Receive OC-3 B 4. Free Run 5. External DS1 SF or ESF, both 6. External DS1 SF or ESF, Pri 7. External DS1 SF or ESF, Sec 8. External DS1 ESF w/sync, both 9. External DS1 ESF w/sync, PRI 10. External DS1 ESF w/sync, SEC
7. DS3 Provisioning	
1. DS3 #1 Name	User defined
2. DS3 #1 Interface	**1. Enable** 2. Disable
3. DS3 #1 Line Build Out	**1. Short** 2. Long
5. DS3 #2 Name	User defined
6. DS3 #2 Interface	**1. Enable** 2. Disable
7. DS3 #2 Line Build Out	**1. Short** 2. Long
9. DS3 #3 Name	User defined
10. DS3 #3 Interface	**1. Enable** 2. Disable
11. DS3 #3 Line Build Out	**1. Short** 2. Long
8. Provisionable Alarms	
1. Sonet Alarms	1. OC3 LOS 2. OC3 LOF 3. OC3 AIS 4. OC3 RDI 5. OC3 SF 6. OC3 SD 7. STS-1 #1 LOP 8. STS-1 #1 AIS 9. STS-1 #1 RDI 10. STS-1 #1 UEQ

Table 2. Provisioning Menu Options (Continued)

Menu Selections		Available Options (default in bold)
8. Provisionable Alarms		
	1. Sonet Alarms	11. STS-1 #1 SLM 12. STS-1 #2 LOP 13. STS-1 #2 RDI 14. STS-1 #2 RDI 15. STS-1 #2 UEQ 16. STS-1 #2 SLM 17. STS-1 #3 LOP 18. STS-1 #3 AIS 19. STS-1 #3 RDI 20. STS-1 #3 UEQ 21. STS-1 #3 SLM
	2. DS-3 Alarms	1. DS-3 #1 LOS 2. DS-3 #1 LOL 3. DS-3 #1 TXO 4. DS-3 #1 TXF 5. DS-3 #2 LOS 6. DS-3 #2 LOL 7. DS-3 #2 TXO 8. DS-3 #2 TXF 9. DS-3 #3 LOS 10. DS-3 #3 LOL 11. DS-3 #3 TXO 12. DS-3 #3 TXF
	3. System Alarms	1. Clock holdover 2. Clock Switch 3. Clock Primary 4. Clock Secondary 5. Protection Switch 6. Protection Failure 7. Power A Failure 8. Power B Failur
	4. Diagnostic Alarms	1. OC-3 Line 2. OC-3 Local 3. DS-3#1 Line 4. DS-3 #1 Local 5. DS-3 #2 Line 6. DS-3 #2 Local 7. DS-3 #3 Line 8. DS-3 #3 Local
	5. 15-Minute Threshold Alarms	1. Section CV 2. Section ES 3. Section SES 4. Line CV 5. Line ES 6. Line SES 7. Line UAS 8. Path #1CV 9. Path #1 ES 10. Path #1 SES 11. Path #1UAS 12. Path #2 CV 13. Path #2 ES 14. Path #2 SES 15. Path #2UAS 16. Path #3 CV 17. Path #3 ES 18. Path #3 SES 19. Path #3 UAS

Table 2. Provisioning Menu Options (Continued)

Menu Selections	Available Options (default in bold)
6. Daily Threshold Alarms	1. Section CV 2. Section ES 3. Section SES 4. Line CV 5. Line ES 6. Line SES 7. Line UAS 8. Path #1CV 9. Path #1 ES 10. Path #1 SES 11. Path #1UAS 12. Path #2 CV 13. Path #2 ES 14. Path #2 SES 15. Path #2UAS 16. Path #3 CV 17. Path #3 ES 18. Path #3 SES 19. Path #3 UAS
7. Environmental Alarms	1. Auxiliary Alarm #1 2. Auxiliary Alarm #2 3. Auxiliary Alarm #3 4. Low Battery 5. No Battery 6. AC Failure 8. Node ID 9. Power Supply
8. Restore Alarm Defaults	
9. Time and Date	
1. Month	
2. Day	
3. Year	
4. Hour	
5. Minute	
10. Restore Factory Defaults	
11. Software Upgrade	1. Transfer Protocol 2. TFTP Server 3. TFTP File Name 4. Transfer Type 5. Start TFTP Download 6. Start Transfer Reboot Working Reboot Protected Last TFTP Error Working Download Status Protected Download Status Working Download Version Protected Download Version

DS3 Interface

The OPTI-3 Controller Module fits into either the wallmount chassis or the rackmount chassis. Each DS3 interface is provided using two BNC I/O connectors, one for the transmit signal and one for the receive signal, located on the backplane of the chassis. Both types of chassis provide six BNC I/O connectors for coaxial cable.

Power Interface

The Total Access OPTI-3 chassis backplane utilizes two –48 VDC, ±24 VDC buses to each OCM. The OCM operates with either or both power buses active. In addition, both buses are monitored for power failure and an alarm is generated in the event of power-loss to either buss. A power failure alarm is only generated when a power source is first detected on the power bus. A front panel LED indicator is included on each OCM to provide visual power status information.

User/Supervisory Interface

User access to the OCM is provided by either the craft port (DB-9) on the front panel of the OCM, the Ethernet port on the rear of the chassis, or the Data Communications Channel (DCC) of the OC-3. There are also pushbuttons on the front panel of the OCM that provide an interface with the module.

Craft Port

The craft port provides user-friendly menus to provision and monitor the OCM. The OPTI-3 supports provisional baud rates on the Craft port. Both craft ports will always be provisioned to the same baud rate. Also, the OPTI-3 system will require a new login after a craft port cable is disconnected, as well as, keyboard inactivity for 15 minutes (this timer is provisionable). Craft port access is accomplished by using a terminal acting as a VT100 emulator. The terminal should be connected to the OCM using a serial cable with a male DB-9 on the end connected to the OPTI-3. A complete DB-9 cable of standard RS-232 serial communication is necessary, an incomplete cable will result in indeterminate behavior. The baud rate can be provisioned as 9600, 19200, 38400, 57600, or 115200 from the Management/Craft Menu.

The terminal initially should be provisioned for the following settings:

- 9,600 bps
- 8 Data Bits
- No Parity
- 1 Stop Bit
- No Flow Control

If two OCMs are installed in the chassis, access is provided to both OCMs through the craft-port connection on either OCM.

Ethernet Port

The Ethernet Port on the rear of the Total Access OPTI-3 RMC and WMC provides Telnet/TL1, Telnet/Menu, SNMP, and TFTP access to the OCM. Also Telnet/TL1, Telnet/Menu, SNMP, and TFTP support is available over the fiber using the OSI/IP Tunnel. Up to sixteen concurrent Telnet/TL1 sessions may be used for administration, provisioning, performance monitoring, and alarm monitoring. See *Appendix B* for a list of available TL1 commands, responses, and messages.

Up to sixteen concurrent Telnet/Menu sessions may be used for administration, provisioning, performance monitoring, and alarm monitoring. See the *Menu Structure* section of this document.

The Ethernet Port provides IP (internet protocol) access to the OPTI-3 OCM. Only IP and ARP (Address Resolution Protocol) data will be processed by the OCM. An IP Address, Subnet Mask, and Default Gateway address must be provisioned according to the connected IP network for data operations to be performed. Instructions for setting up the IP options for the OCM are provided in the Menu Structure section of this document.

Data Communications Channel (DCC)

The OC-3 Data Communications Channel provides TL1 management as well as IP communication. The DCC channel always operates in a terminal/bridged mode to support survival of single fiber failures.

The DCC channel is automatically configured when the system is in a Back-to-Back environment (Central Office or Remote Terminal). The DCC must be manually configured when the system is installed subtended from a SONET ADM.

See *Appendix A* for more information on the OPTI-3 SONET DCC. See *Appendix B* for TL1 Commands, Responses, and Autonomous messages.

Software Upgrades

Software downloads for the local OPTI-3 are provided using TFTP, XModem, and YModem protocols. TFTP downloads are provided through the Ethernet interface (provided through the rear of the chassis) or over the DCC channel. XModem and YModem downloads are provided through the craft port and telnet connections.

Diagnostics

There are several options available for diagnostics. These include front panel LEDs, external alarm contacts on the backplane, a Test menu that provides loopback tests, and a Performance Monitoring menu that provides performance monitoring information. For more information on the Test Menu and the Performance Monitoring Menu, see the respective sections contained in the latter part of this document.

Front Panel LEDs

The OCM uses LEDs to convey status information to an onsite user. A list and description of the front panel LEDs is provided in **Table 3**.

Front Panel Switches

The OPTI-3 Controller Module has an automatic protection switch, alarm cutoff switch, and a Test/Enable switch. **Table 4** provides a description of these pushbuttons.

Alarm Contacts

The OPTI-3 Controller Module, when installed in an RMC, provides an external alarm cutoff input (ACO), three auxiliary alarm inputs, three audible alarm outputs (Critical, Major, Minor), and three visual alarm outputs (Critical, Major, Minor). Each alarm output provides both a Normally Open and a Normally Closed option. The WMC provides three auxiliary alarm inputs. The auxiliary alarm inputs on either chassis are user-definable via the alarm menu (see the *Menu Structure* section for more information).

4. MENU STRUCTURE

The following subsections describe the OPTI-3 Controller Module menus. The OPTI-3 can be accessed locally via the craft or ethernet ports or remotely via the DCC channel. When a terminal is first connected to the craft port, a <Return> may be pressed to bring up the login information. After the login information is validated, the software will activate the menu interface.

Up to fourteen different accounts can be provisioned on the OPTI-3. Each account can be provisioned with a different permission level. The Username and Password can be configured for case-sensitive or case-insensitive operation on a system-wide basis. Refer to the *Account Provisioning* subsection of this section for more information concerning adding, editing, and removing accounts. The four default accounts are as follows:

Username	Password
admin	password
readwrite	password
readonly	password
root	root

NOTE

The admin account always has Administrator permission and cannot be removed from the system. The password can be modified if the account is not to be accessed.

Unless otherwise indicated on the menu screen, menu selections are made by typing the corresponding number followed by <Enter>. If a wrong selection is made, pressing <Esc> will display the previous screen. <?> can be used at any time to display a list of available menu commands.

Main Menu

The Main Menu allows the user to access the module to perform various functions and retrieve information including configuration, provisioning, status, alarms, test, performance monitoring, and protection configuration. A menu tree is provided in **Figure 7**. The following text provides information on each of the available submenus.

1. **Configuration Menu**
   The Configuration Menu is a read-only menu that allows the user to view configuration data for the OCM. Provisioning options may not be modified from this screen.

Table 3. OPTI-3 Front Panel LEDs

LED	Color	Description
STATUS	Off	No power is present on the unit
	Green	In Service
	Yellow	The unit is Out-Of-Service-Unassigned
	Flashing Yellow	The unit is Out-Of-Service-Maintenance or is ONLINE and inhibited from switching
	Red	The unit has an equipment failure
OPTICS	Green	The optical interface has no hard alarm
	Yellow	Soft failure (e.g. Remote Defect Indication (RDI))
	Flashing Yellow	Unit In Test (e.g. Loopback)
	Flashing Red	Unit In Test (e.g. Loopback) with an alarm present on the Optical Interface
	Red	LOS, LOL and other hard alarms on optical interface
DS3 #1	Off	Unit is OFFLINE (DS3 Tx Off)
	Green	Unit is ONLINE (DS3 Tx On)
	Yellow	Soft failure (e.g. RDI)
	Flashing Yellow	Unit In Test (e.g. Loopback)
	Flashing Red	Unit In Test (e.g. Loopback) with an alarm present on the DS3 Interface
	Red	LOS, LOL and other hard alarms on DS3 interface
DS3 #2	Off	Unit is OFFLINE (DS3 Tx Off)
	Green	Unit is ONLINE (DS3 Tx On)
	Yellow	Soft failure (e.g. RDI)
	Flashing Yellow	Unit In Test (e.g. Loopback)
	Flashing Red	Unit In Test (e.g. Loopback) with an alarm present on the DS3 Interface
	Red	LOS, LOL and other hard alarms on DS3 interface
DS3 #3	Off	Unit is OFFLINE (DS3 Tx Off)
	Green	Unit is ONLINE (DS3 Tx On)
	Yellow	Soft failure (e.g. RDI)
	Flashing Yellow	Unit In Test (e.g. Loopback)
	Flashing Red	Unit In Test (e.g. Loopback) with an alarm present on the DS3 Interface
	Red	LOS, LOL and other hard alarms on DS3 interface
ACO LED	Off	Normal (No Alarms) Unit is in Out-Of-Service-Unassigned
	Red	Acknowledged alarms active on the shelf
	Flashing Red	Unacknowledged alarms active on the shelf
	Yellow	When displayed on the OCM at the CO, it indicates acknowledged active alarms at the RT
	Flashing Yellow	When displayed on the OCM at the CO, it indicates unacknowledged active alarms at the RT

Table 4. OPTI-3 Front Panel Pushbuttons

Pushbutton	Description
APS	Automatic Protection Switch: (1) Hold this button down on the OFFLINE OCM and simultaneously push the Test/Enable button to force a switch between the two OCMs. This will lock the OCM in the online state. (2) Hold this button down on the ONLINE OCM and simultaneously push the Test/Enable button to lock or unlock the OCM in the online state.
TEST / ENABLE	When activated alone, tests all unit LEDs (multicolor LEDs appear yellow). When activated with APS switch, see above.
ACO	Alarm Cutoff (to silence audible alarms and to acknowledge alarms)

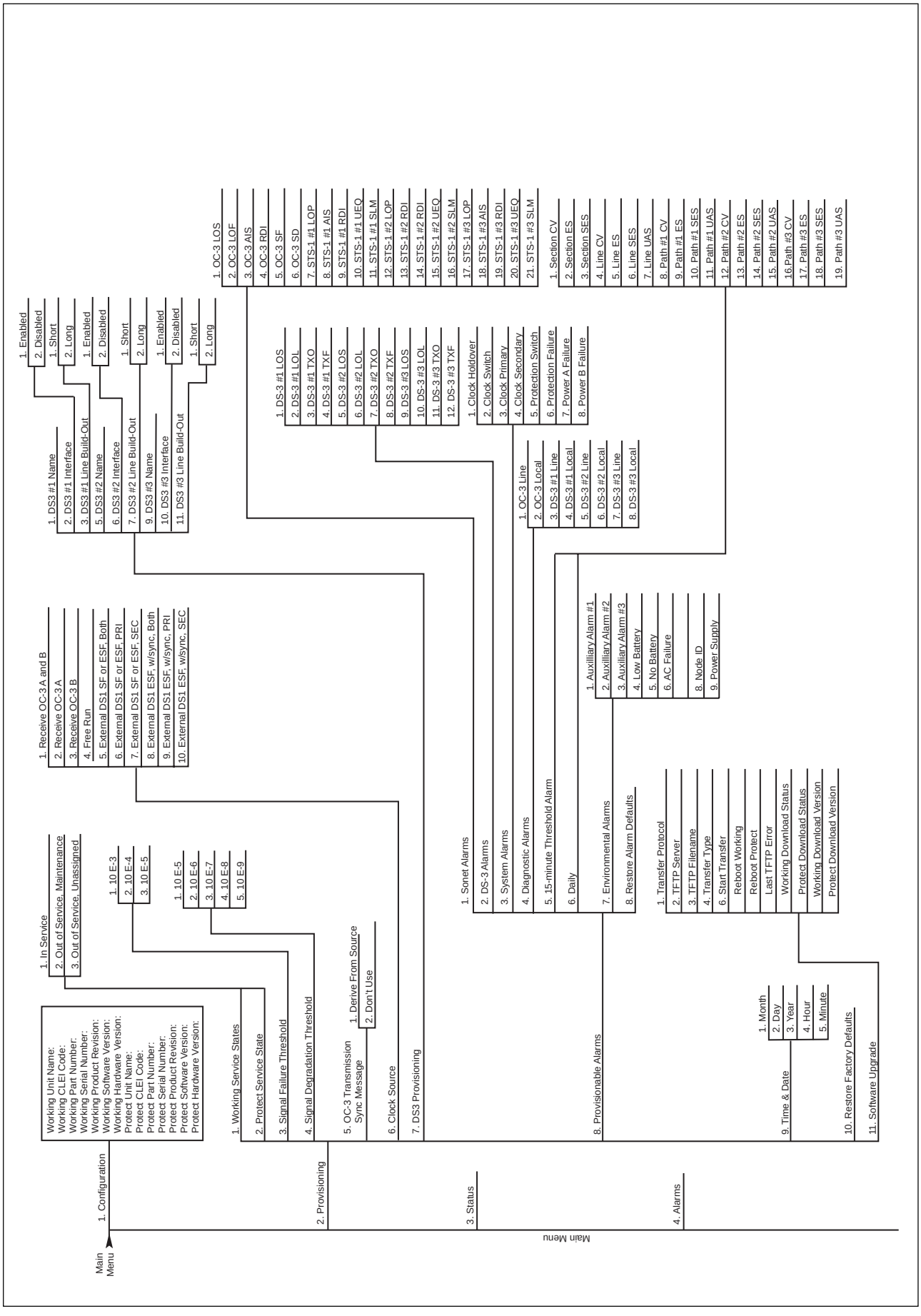


Figure 7. OPTI-3 Menu Tree

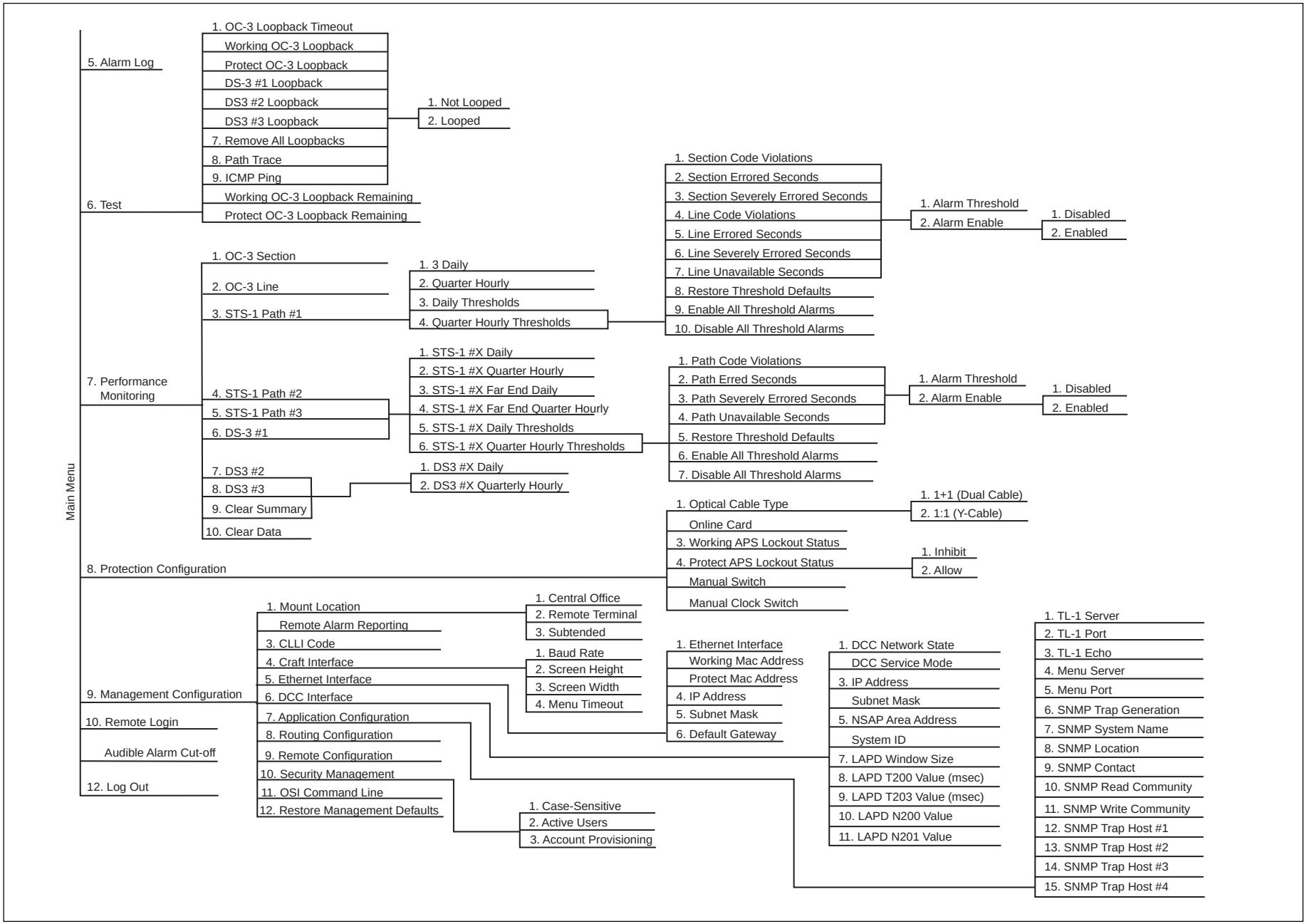


Figure 7. OPTI-3 Menu Tree (Continued)

2. Provisioning Menu

The Provisioning Menu allows the user to make modifications to the provisioning of the OCM. The following subsections describe the available provisioning submenus.

1. Working Service State

The OPTI-3 Control Module may be placed into one of the following three service states:

1. In Service – This is the default service state. This service state provides data traffic flow and alarm reporting. Software upgrades are allowed. Some testing and provisioning that affect data traffic may not be performed while the service state is set to In Service.
2. Out of Service, Maintenance – This service state provides data traffic flow without reporting any alarms. This state can be used for provisioning of data-effecting options as well as for running tests and upgrading software. NO ALARMS WILL BE REPORTED WHILE IN THIS SERVICE STATE.
3. Out of Service, Unassigned – This service state allows all provisioning, testing, and software upgrades to be performed on the OCM. No alarms are reported and no data may be passed through the unit.

2. Protect Service State

3. Signal Failure Threshold

The signal failure threshold may be set to any of the following values:

1. 10 E - 3 (default)
2. 10 E - 4
3. 10 E - 5

4. Signal Degradation Threshold

The signal degradation threshold may be set to any of the following values:

1. 10 E - 5 (default)
2. 10 E - 6
3. 10 E - 7
4. 10 E - 8
5. 10 E - 9

5. OC-3 Transmission Synchronization Message

The OC-3 Synchronization Message is a clock quality label that allows the OPTI-3 to select the most suitable synchronization reference from the set of available references and reconfigure its synchronization reference automatically, avoiding the creation of timing loops. The OC-3 Synchronization Message is carried as 4 bits in the S1 byte of the SONET line overhead. The OPTI-3 only monitors the sync message when the clock source is provisioned to receive timing from the OC-3. Based on the synchronization message received from Fiber A and/or B, the OPTI-3 will select the suitable timing reference or go into holdover if the "Don't Use for Sync" message is received on all fibers that are used for reference. Normally, in a redundant fiber configuration, both fibers carry the same sync message, and suitable timing is available from either fiber. The following options are available concerning the OC-3 Transmission Synchronization Message:

1. Derive From Source
2. Don't Use

6. Clock Source

The OPTI-3 Controller Module may receive a clock signal from any of the following:

1. Receive OC-3 A and B
2. Receive OC-3 A
3. Receive OC-3 B
4. Free Run
5. External DS1 SF or ESF, both
6. External DS1 SF or ESF, PRI
7. External DS1 SF or ESF, SEC
8. External DS1 ESF w/Sync, both
9. External DS1 ESF w/Sync, PRI
10. External DS1 ESF w/Sync, SEC

7. DS3 Provisioning

DS3 Provisioning allows the user to configure the three DS3 interfaces on the OPTI-3 Controller Module. The following submenus are available:

1. DS3 #1 Name – may be set to provide a SNMP circuit identifier name to the DS-3 interface.
2. DS3 #1 Interface – may be set to either Enabled or Disabled, Unassigned. Enabled allows for full operation of DS3 interface. Disabled prevents use of the DS3 interface.
3. DS3 #1 Line Build Out – may be set to either Short or Long. Short corresponds to 225 feet or less of Lucent™ 734A or

equivalent, or 100 feet or less of Lucent™ 735 or equivalent. Long corresponds to 225 – 400 feet of Lucent™ 734A or equivalent, or 100 – 200 feet of Lucent™ 735 or equivalent.

4. DS3 #2 Name – same as DS3 #1
5. DS3 #2 Interface – same as DS3 #1
6. DS3 #2 Line Build Out – same as DS3 #1
7. DS3 #3 Name – same as DS3 #1
8. DS3 #3 Interface – same as DS3 #1
9. DS3 #3 Line Build Out – same as DS3 #1

8. Provisionable Alarms

The OPTI-3 allows for all system alarms to be provisioned. The OPTI-3 alarms are broken down into SONET, DS3 System, Diagnostic, 15-Minute Threshold, Daily Threshold, and Environment alarms.

All alarms allow the Full Alarm Name, and Condition name to be configured. SONET, DS3 System, Diagnostic, and Environmental alarms also allow the Unprotected and Protected alarm severities to be configured.

All of the Environmental alarms also allow the provisioning of a Housekeeping number. The housekeeping number is used only when the OPTI-3 is connected to Fujitsu* ADM. A total of 16 external alarm inputs (housekeeping inputs) can be distributed throughout a Fujitsu* network. The inputs are collected at the appropriate network element via the housekeeping input port (HK IN). The housekeeping inputs, identified by the housekeeping number, are reported to the CO NE using a proprietary protocol. The CO NE uses its housekeeping alarm output port (HK OUT) to relay the housekeeping alarms from all of the remotes to the CO local alarm monitoring station. The Far End Node ID submenu allows the user to assign the OPTI-3 a number significant only to a Fujitsu* ADM that is connected to the OPTI-3.

The Total Access OPTI-3 allows a Fujitsu* NE, when equipped with the enhanced alarm and orderwire card, to display visual alarm status for an OPTI-3 that is connected to it. Each NE to be monitored will be assigned a unique shelf equipment ID number via the FAR END NODE ID submenu.

The FE SEL (Far End Select) button, located on the front of the Fujitsu* Microprocessor Unit, is used to step through the equipment ID numbers. Numbers 1 through 9 and the decimal point are displayed in turn on the EQPT NO. (equipment number) LED. Each time the button is pressed, the number increases by one. A number accompanied by a decimal point indicates that the selected shelf is the local shelf. When a number assigned to another shelf on the network appears, the state of the alarm/status LEDs at that shelf is displayed on the local Alarm and Orderwire Unit front panel.

The Environment alarm provisioning allows the external Auxiliary Alarm Inputs to be configured. Each of the Auxiliary Alarms are triggered individually by the detection of a contact closure across the corresponding wire-wrap pins on the backplane of the OPTI-3 chassis. Once triggered, an alarm is sent to the alarm screen, the ACO LED begins to flash RED, an SNMP trap is sent, and a TL1 message is broadcast over the DCC and the Ethernet (if connected). Once the contact closure is removed, the alarm is cleared from the alarm screen, the ACO LED turns off (if there are no other alarms present on the system), an SNMP trap is sent, and a TL1 message is broadcast over the DCC and the Ethernet (if connected).

Power Supply Decoding is another feature provided by the Environmental Alarms Menu and may be assigned to any one of the three Auxiliary Alarm pins on the rear of the chassis. Power Supply Decoding may only be implemented when the OPTI-3 is connected to a Total Access AC/DC Power Supply P/N 1175043L2. The Total Access AC/DC Power Supply provides three different contact closure rhythms that indicate three different problems. A steady closure indicates a low battery (less than 40 V). One closure per second indicates an AC Power Failure with the Battery Backup engaged. Finally, one closure every 450 ms indicates a failed battery. Each of these three alarms may be manipulated in the same manner as the Auxiliary Alarms in the above text.

*Use here of company's name does not mean company has authorized, tested or approved this product, and should not in any way be construed as an endorsement by company of ADTRAN's product.

9. Management Configuration

All management operations for the OPTI-3 Controller Module are configured through a separate menu tree than the traffic affecting provisioning items.

The following provisioning options are available:

1. Mount Location – The mount location is used to determine the location of the OPTI-3 within the network as well as to configure the DCC management parameters required for remote access. When the mount location is configured as Central Office or Remote terminal the system is forced into a Back-to-Back configuration. When the mount location is configured as Subtended then the system is configured for subtended SONET ADM operation.

   Back-to-Back

   This mode is used when OCMs are connected together in a point-to-point setup. It consists of one OCM configured for Central Office and the other for Remote. This mode of operation supports accessing the remote OCM menus, either by the CO craft port or the CO Ethernet LAN (via Telnet). This remote management is carried over the DCC section on the fibers between the OCMs. This mode of operation supports remote management of other ADTRAN equipment subtended from the OCM at the remote site. TFTP and SNMP are supported in this mode, both on a local Ethernet access and to the remote OCM. NMA access is supported with TL1 via Telnet, where NMA can access both devices via the CO TL1 session (CO acts as GNE, 1 IP address assigned).

   Subtended

   The OCM functions as a full SONET terminal multiplexer in a new or existing SONET network. It consists of one OCM configured for Subtended mode. This mode allows each OCM to directly connect to SONET backbone equipment. Management access is also provided over the DCC to other network elements on the SONET ring. The DCC Interface must be properly configured, LAPD parameters and NSAP Area Address, for the SONET network for remote OCM management. The OCM can be also used as a GNE device to allow TL1 access to the existing SONET network.
2. Remote Alarm Reporting – Alarm information from a Remote Terminal OPTI-3 can be processed through the Central Office OPTI-3. This operation can be enabled or disabled through the Central Office system.
3. CLLI Code – Common Language Location Identification Code. The CLLI code is a 20-character code used to uniquely identify a location. The OPTI-3 uses the CLLI code as its Target Identifier (TID).

NOTE

Addressing for TL1 communication is done using a Target Identifier (TID). The CLLI Code is used as the OPTI-3s TID and differentiates one OPTI-3 from another.

NOTE

A valid CLLI Code must be provisioned when the system is configured as a Central Office or Remote Terminal system to allow remote management.

---

5. Ethernet Interface – The ethernet interface must be configured if any SNMP or Telnet operations are used. A unique IP address must be provided for the system. The ethernet interface configuration is also used as the primary network configuration for the Remote Terminal system when configured in Back-to-Back mode.

   1. Ethernet Interface – The Ethernet physical interface can be enabled or disabled on a OPTI-3 system basis. When the physical interface is disabled no ethernet traffic is allowed.

   4. IP Address/Subnet Mask – The IP address and subnet mask are used to identify the location of the OPTI-3 system within an IP network. These values must

be configuration according the management network.

NOTE

In a Back-to-Back configuration, the IP address of the Central Office and Remote Terminal systems can exists on the same subnet as long as the Subnet Mask configured on the Remote Terminal is 255.255.255.255. This feature allows the Remote Terminal to be accessed without adding a static route entry within the maintenance network.

6. DCC Interface – All DCC configuration items are automatically configured while the mount location is either Central Office or Remote Terminal. When the mount location is Subtended the items must be configured to correspond to the SONET ADM network to allow management operations via the DCC channel.

   1. DCC Network State – This state provides the options of Network or User. This state should be the compliment of the SONET ADM equipment in which the OPTI-3 is connected.

   3. IP Address – This is the IP address for the DCC interface. This address is needed only when the OSI/IP tunnel is to be used to provide IP information from the DCC network.

   5. NSAP Area Address – The area address identifies an area within an OSI routing domain. It is the most significant part of a network service access point address. This option requires up to a 26-HEX character input from the user.

   7-11. LAPD Parameters – All of the DCC LAPD parameters may be configured to interoperate with most SONET ADM equipment. Normally the default values are sufficient for complete interoperability.

7. Application Interface – The application interface provides all of the provisioning items used to manage the OPTI-3 system. This includes the provisioning of the TL-1 and SNMP management protocols.

   1-2. TL-1 Server – The TL-1 server allows TL-1 commands from an IP interface. The server can be enabled or disabled and the TCP port number can be configured. The TL-1 server also serves as the access point for the TL-1 GNE feature within the OPTI-3.

   3. TL-1 Echo – The TL-1 echo features enables or disables character echoes from the TL-1 server. This feature should be disabled if the OPTI-3 is being managed via TL-1 from an external system such as NMA.

   4-5. Menu Server – The menu server allows menu access, similiar to craft interface, from an IP interface. The server can be enabled or disabled and the TCP port number can be configured. The menu server should be disabled if network security is an issue for the system.

   6. SNMP Trap Generation – This option controls whether SNMP traps can be generated from the OPTI-3 system. This option can globally disable trap messages regardless of the trap host configuration.

   7-11. SNMP Host Configuration – All SNMP host parameters can be configured through these options. These values correspond the the SNMP security options as well as the MIB-2 host information objects.

   12-15. SNMP Trap Host Configuration – The SNMP trap hosts are used to determine the destination for all trap messages from the OPTI-3. The IP address, protocol version, confirmation state, and retry count can be configured for each trap host. Each trap host can be enabled or disabled independently but are still controlled by the global SNMP trap generation option.

8. Routing Configuration – The IP routing information for the OSI/IP tunnel can be configured through this option. IP routes can only be added when the mount location is subtended. This screen is read-only when in a Back-to-Back configuration.

   1-12. – The IP address, subnet mask, and NSAP address must be configured for each routing entry. This allows IP packets

for the IP subnet specified to be forwarded to the station with the provided NSAP address over an OSI (DCC) network. The destination station (station with the NSAP address provided) must also support OSI/IP tunneling for any IP packets to be forwarded.

9. Remote Configuration – This option is used to provide remote login capablities while subtended from a SONET ADM. The IP address of a SONET NE is tied to a target identifier value. When the remote login option is selected the target identifier is translated back into an IP address to perform the remote login.
10. Security Management – This menu provides access to the following three options related to security:

    1. Case-Sensitive – This option controls whether the account username and password are processed as case-sensitive or case-insensitive. This setting is applied to all accounts and is valid through menu login operations only. TL-1 login operations are always case-insensitive regardless of this setting.

    2. Active Users – This menu displays all users currently logged into the system. It includes the username, interface being used, type of connection, any source address information for the interface, and the time that users logged into the system.

    3. Account Provisioning

    1-14. – The username, password, and permission level can be set for up to 14 accounts. The Administrator account allows only the password to be provisioned so that an administrator account is always available to the system.
11. OSI Command Line – This option is used for field testing of the OSI interface. It provides a command based interface into the internal protocol operations of the OSI/DCC interface. This option should be accessed only under the supervision of ADTRAN Technical Support.
12. Restore Management Defaults – This option changes all Management Configuration settings to default values.

3. Status Menu

The Status Menu is a read-only screen that provides information about the performance and status of each port. The Status Menu is shown in **Figure 8**.

4. Alarm Menu

The Alarm Menu provides a list of current alarms detected by the OCM. **Table 5** provides a list of alarm codes and descriptions that may be present on the Alarm Menu.

```
Local  Alarms: None                                        01/28/04 13:28:04
                                                                   CLLI: CO


                                    Status

   Ethernet State    : Up               Online Card           : Working
   Intermux State    : Down             Management Card       : Working
   SDCC State        : Up               Working OC-3          : In-Service
   OSI State         : Up               Protect OC-3          : In-Service

   DS-3 #1 Interface : Enable           Active Clock          : Free Run
   DS-3 #2 Interface : Enable           Clock Status          : Normal
   DS-3 #3 Interface : Enable           Primary Fiber Clock   : Don't Use
                                        Secondary Fiber Clock : Don't Use
   Aux. Input #1     : Disabled         Primary Ext. Clock    : Failed
   Aux. Input #2     : Disabled         Secondary Ext. Clock  : Failed
   Aux. Input #3     : Disabled



                              '?' - System Help Screen
```

Figure 8. Status Menu

Table 5. Alarm Codes and Descriptions

Description	Interface	Type	TL1 Condition Type	Severity
Loss of Signal	OC-3	Facility	LOS	Minor or Critical (1)
Loss of Frame	OC-3	Facility	LOF	Minor or Critical (1)
Alarm Indication Signal	OC-3	Facility	AIS	Alert (3)
Signal Failure	OC-3	Facility	SF	Minor or Critical (1)
Signal Degradation	OC-3	Facility	SD	Minor or Critical (1)
Remote Failure Indication	OC-3	Facility	RFI	Minor
Loss of Pointer	STS-1	Facility	LOP-P	Minor or Critical (1)
Unequipped	STS-1	Facility	UNEQ-P	Minor or Critical (1)
Signal Lab Mismatch	STS-1	Facility	SLMF	Minor or Critical (1)
Alarm Indication Signal	STS-1	Facility	AIS-P	Alert (3)
Remote Failure Indication	STS-1	Facility	RDI-P	Minor
Loss of Signal	DS3	Facility	LOS	Major
Loss of Lock	DS3	Facility	LOL	Major
Transmit Buffer Overflow	OC3	Facility	TXO	Major
Transmit Driver Failure	OC3	Facility	TXF	Major
Loss of Protection	Card	Equip	CTNEQPT	Minor
Equipment Failure SA	Card	Equip	EQPT	Critical (1)
Equipment Failure NSA	Card	Equip	EQPT	Minor (1)
Protection Switch Active	Card	Equip	WKSWPR	Alert (3)
Secondary Clock Failure	Clock	Equip	SYNCSEC	Minor
Primary Clock Failure	Clock	Equip	SYNCPRI	Minor
Clock in Holdover	Clock	Equip	SYNCLK	Alert (3)
Secondary Clock Active	Clock	Equip	SYNCPS	Alert (3)
RTC Low Battery	Clock	Equip	RTCLK	Alert (3)
Power A Failure	Card	ENV	PWRPRI	Provisionable (2)
Power B Failure	Card	ENV	PWRSEC	Provisionable (2)
Auxiliary Alarm #1	Aux	ENV	AUX-1	Provisionable (2)
Auxiliary Alarm #2	Aux	ENV	AUX-2	Provisionable (2)
Auxiliary Alarm #3	Aux	ENV	AUX-3	Provisionable (2)
Low Battery	Aux	ENV	LWBATVG	Provisionable (2)
Battery Failure	Aux	ENV	BATTERY	Provisionable (2)
AC Power Failure	Aux	ENV	POWER	Provisionable (2)
OC-3 Line Loopback Active	Diagnostic	OC3	LPBKLINE	Alert (3)
OC-3 Local Loopback Active	Diagnostic	OC3	LPBKTERM	Alert (3)
DS-3 Line Loopback Active	Diagnostic	DS3	LPBKLINE	Alert (3)
DS-3 Local Loopback Active	Diagnostic	DS3	LPBKTERM	Alert (3)
Section Code Violations	OC-3	Parameter	T-CVS	Alert (3)
Section Errored Seconds	OC-3	Parameter	T-ESS	Alert (3)
Section Severely Errored Seconds	OC-3	Parameter	T-SESS	Alert (3)
Section Severely Errored Framing Seconds	OC-3	Parameter	T-SEFS-S	Alert (3)
Line Code Violations	OC-3	Parameter	T-CVL	Alert (3)
Line Errored Seconds	OC-3	Parameter	T-ESL	Alert (3)
Line Severely Errored Seconds	OC-3	Parameter	T-SESL	Alert (3)
Line Unavailable Seconds	OC-3	Parameter	T-UASL	Alert (3)
Path Code Violations	STS-1	Parameter	T-CVP	Alert (3)
Path Severely Errored Seconds	STS-1	Parameter	T-ESP	Alert (3)
Path Severely Errored Framing Seconds	STS-1	Parameter	T-SESP	Alert (3)
Path Unavailable Seconds	STS-1	Parameter	T-UASP	Alert (3)

Note 1: Alarms will be reported as Minor (Non-Service Affecting) or Critical (Service Affecting) depending on whether protection is available.
Note 2: User Provisionable between Unused, Minor, Major or Critical.
Note 3: Alerts do not result in an Alarm output from the OPTI-3 shelf.

5. Test Menu

The OPTI-3 Controller Module provides access to multiple loopback tests at the OC-3 and DS3 levels. The following tests are provided:

1. ***OC-3 Line Loop*** **–** Provides a loopback in the OC-3 interface for data being sent into the OC-3 interface. During this test, an Alarm Indication Signal (AIS) is sent all three DS3 interfaces. See **Figure 9**.

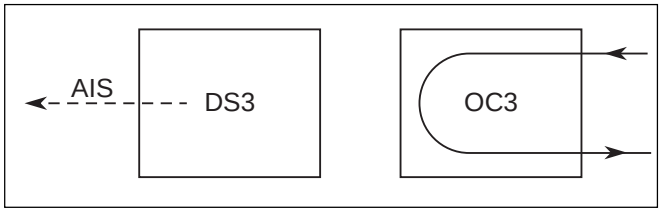


Figure 9. OC-3 Line Loopback

2. ***OC-3 Local Loop*** **–** Provides a loopback in the OC-3 interface for data being sent into the electrical DS3 interfaces. All DS3s are looped during this test. For this reason, APS MUST BE DISABLED before this test may be performed. See **Figure 10**.

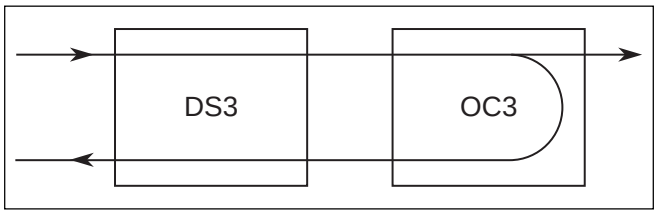


Figure 10. OC-3 Local Loopback

3. ***DS3 Line Loop*** **–** Provides a loopback for the data being sent from the DS3 side of the OPTI-3. Any combination of DS3s may be tested without effecting any other DS3. See **Figure 11**.

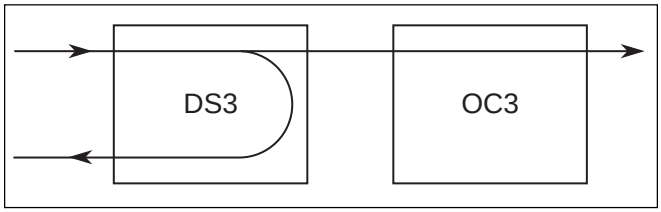


Figure 11. DS3 Line Loopback

4. ***DS3 Local Loop*** **–** Provides a loopback for each individual DS3 coming from the OC-3 network. Any combination of DS3s may be tested without affecting any other DS3. See **Figure 12**.

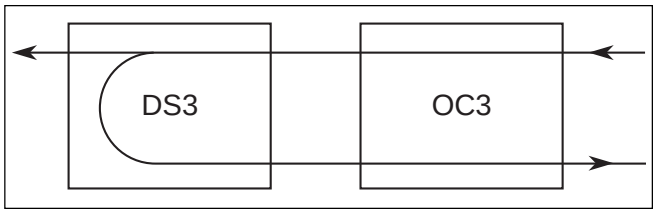


Figure 12. DS3 Local Loopback

5. ***Remove All Loops*** – Drops all active loopbacks within the OPTI-3 Controller Module.

6. Performance Monitoring Menu

The main Performance Monitoring Menu provides access to PM submenus and allows the user to reset all performance data registers and clear errors in the performance summary. The display reports if the performance monitoring registers record any errors since the error summary was last initialized or the Reset Performance Registers command was last asserted. The following choices are available from the main Performance Monitoring Menu:

1. ***Clear Error Summary***
   This command initializes all the performance summary registers and displays.
2. ***Reset Performance Registers***
   This command initializes all the performance registers for the OCM.
3. ***OC-3 Section and Line***
   The OC-3 Section and Line portion of the Performance Monitoring Menu provides PM data for the Near and Far Ends. This menu also allows thresholds to specified and enabled or disabled. The following submenus are available:
   1. Daily – Provides the user with daily counts of multiple performance monitoring statistics including Section Code Violations, Section Errored Seconds Section Severely Errored Seconds, Line Code Violations, Line Errored Seconds, Line Severely Errored Seconds, and Line Unavailable Seconds.

*Use here of company's name does not mean company has authorized, tested or approved this product, and should not in any way be construed as an endorsement by company of ADTRAN's product.

2. Quarter Hourly – Provides the user with counts of performance monitoring statistics in 15-minute intervals over the most recent 24-hour period. The available statistics include Section Code Violations, Section Errored Seconds Section Severely Errored Seconds, Line Code Violations, Line Errored Seconds, Line Severely Errored Seconds, and Line Unavailable Seconds.
3. Far End Daily – Provides the user daily counts of the same PM data categories as listed for OC-3 Daily, but the statistics are associated with the far-end.
4. Far End Quarter Hourly – Provides the user quarter hourly counts of the same PM data categories as listed for OC-3 Quarter Hourly, but the statistics are associated with the far-end.
5. Daily Thresholds – Provides the user with daily alarm threshold levels for multiple PM statistics. The threshold for each statistic may be set and the alarm corresponding to the breech of that threshold may be enabled or disabled.
6. Quarter Hourly Thresholds – Provides the user with quarter hourly alarm threshold levels for multiple PM statistics. The threshold for each statistic may be set and the alarm corresponding to the breech of that threshold may be enabled or disabled.

4. STS-1 Path #1

Each STS-1 Path has the same options. The available options are listed and described below:

1. Daily – Provides user with daily counts of multiple performance monitoring statistics including Line Code Violations, Line Errored Seconds, Line Severely Errored Seconds, Line Unavailable Seconds, and Line Fault Count.
2. Quarter Hourly – Provides counts of performance monitoring statistics in 15-minute intervals over a 24-hour period. Please note that selecting option 3 will then allow the user to choose which statistic to monitor. A complete log of 15-minute intervals for a 24-hour period (96 intervals) will then be displayed for each statistic.
3. Far End Daily – Provides user with daily counts of multiple performance monitoring statistics associated with the far-end.
4. Far End Quarter Hourly – Provides counts of performance monitoring statistics in 15-minute intervals over a 24-hour period associated with the far-end. As with the Qtr-Hourly, all 96 intervals will be displayed upon selection of the particular statistic.
5. Daily Thresholds – Provides the user with daily alarm threshold levels for multiple PM statistics. If this option is selected, the user is then able to set the threshold to the desired level and enable an alarm to be issued once that threshold is exceeded.
6. Quarter Hourly Thresholds – Provides user with daily alarm threshold levels for multiple PM statistics associated with the far-end. If this option is selected, the user can set the threshold level and enable an alarm to be issued once the threshold is exceeded.

5. STS-1 Path #2

Offers the same choices as STS-1 Path #1.

6. STS-1 Path #3

Offers the same choices as STS-1 Path #1.

7. DS3 #1

Each DS3 has the same options. The available options are listed and described below:

1. Daily – Provides user with daily counts of multiple performance monitoring statistics including Line Code Violations, Line Errored Seconds, Line Severely Errored Seconds, Line Unavailable Seconds, and Line Fault Count.
2. Quarter Hourly – Provides counts of performance monitoring statistics in 15-minute intervals over a 24-hour period. Please note that selecting option 3 will then allow the user to choose which statistic to monitor. A complete log of 15-minute intervals for a 24-hour period (96 intervals) will then be displayed for each statistic.

8. DS3 #2

Offers the same choices as DS3 #1

9. DS3 #3
Offers the same choices as DS3 #1

10. Clear Performance Summary

11. Clear Performance Data

12. Reset Thresholds

7. Protection Configuration Menu
The Protection Configuration Menu allows the user to view the operational status, allow or inhibit an automatic switch, and force a switch between the online and offline OCMs. The functionality of this menu is duplicated with the pushbuttons of the front of the OCM. If the APS is prohibited from the front panel, the Protection Menu will not display any available options and the Status LED on the front panel of the OCM will flash yellow in all service states.

The OPTI-3 offers two types of protection, 1+1 equipment and facilities protection, and 1:1 equipment protection.

1+1 protection requires the use of two pair of fiber optic cables. One pair connected between the primary OC-3 devices and one pair connected between the secondary OC-3 devices. In this scenario, if one pair of cables is damaged or if an equipment failure occurred, service would not be interrupted.

1:1 equipment protection requires the use of two fiber optic splitters (Y cables) at each NE and one pair of fiber optic cables connected between each NE's splitters. This scenario provides protection in the event of an equipment failure at either end of the circuit, but does not provide protection against damage of the fiber optic cables between the NE's splitters.

8. Stop Audible Alarm
This menu item may be used to open the audible alarm contacts to stop audible alarms from being activated by the OPTI-3.

9. Path Trace Menu
The Path Trace Menu allows the user to view and send path traces.

10. Remote Login
The Remote Login opens a menu session to the OPTI-3 on the other and of the fiber.

11. Display Options Menu
The following options are available for controlling menu appearance:

1. High ASCII Characters – May be enabled or disabled.
2. Screen Height – Controls the height of the screen. Default value is 25.
3. Screen Width – Controls the width of the screen. Default value is 80.
4. Save height & width as default for future connections – May be selected (once height or width adjustments have been made) to save the current height and width settings as default settings to be used for all future connections
5. Craft Baud Rate
6. Menu Time Out

12. Log Out
The Log Out option will allow the user to exit the main menu structure, but the Select Unit screen will still be provided. To disconnect totally from the OPTI-3 menu system, close the corresponding terminal emulation application.

5. SPECIFICATIONS

Table 6 provides the specifications for the OPTI-3 Controller Module. Environmenmtal specifications for the OCM are dependent upon which chassis the OCM has been installed. Table 6 lists the differences between the Rackmount Chassis and the Wallmount Chassis operational and storage temperatures.

6. MAINTENANCE

The OPTI-3 Controller Module requires no routine maintenance to operate properly.

ADTRAN cautions against performing repairs in the field. Repair services are available if you return damaged units to ADTRAN. Refer to the *Warranty and Customer Service* section of this Practice.

7. WARRANTY AND CUSTOMER SERVICE

ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found at www.adtran.com/warranty.

U.S. and Canada customers can also receive a copy of the warranty via ADTRAN's toll-free faxback server at 877-457-5007.

- Request Document 414 for the *U.S. and Canada Carrier Networks Equipment Warranty*.
- Request Document 901 for the *U.S. and Canada Enterprise Networks Equipment Warranty*.

Refer to the following subsections for sales, support, CAPS requests, or further information.

ADTRAN Sales

Pricing/Availability:
800-827-0807

ADTRAN Technical Support

Pre-Sales Applications/Post-Sales Technical Assistance:
800-726-8663

Standard hours: Monday - Friday, 7 a.m. - 7 p.m. CST
Emergency hours: 7 days/week, 24 hours/day

ADTRAN Repair/CAPS

Return for Repair/Upgrade:
(256) 963-8722

Repair and Return Address

Contact Customer and Product Service (CAPS) prior to returning equipment to ADTRAN.

ADTRAN, Inc.
CAPS Department
901 Explorer Boulevard
Huntsville, Alabama 35806-2807

Table 6. OPTI-3 Controller Module Specifications

OPTI-3 Controller Module	
Specification	**Requirements**
Mechanical	
Controller Module Size:	5.5 in. H, x 1.3 in. W, x 10.3 in. D
Weight:	0.875 lb
Optical Transmission Device	
Fiber Type	Single mode
Wavelength	1550 nm
Transmit Level Range	0 dBm to –5 dBm
Receive Level Sensitivity Range	–10 dBm to –34 dBm
Rate	155.52 Mb/s
Connection Type	Dual SC (one Tx, one Rx)
Power	
Input Voltage Range:	–20 VDC to –60 VDC and +20 VDC to +60 VDC
Maximum Current Draw:	225 mA (nonredundant) 400 mA (redundant) @ ±48 V (nominal) 450 mA (nonredundant) 800 mA (redundant) @ ±24 V (nominal)
Maximum Power Dissipation:	10.8 W (nonredundant) 19.2 W (redundant)
Environmental	
Rackmount Chassis Operating Temperature Range:	–40ºC to +65ºC operational
Rackmount Chassis Storage Temperature Range:	–40ºC to +85ºC storage
Rackmount Chassis Operating Humidity	Up to 95 percent noncondensing
Wallmount Chassis Operating Temperature Range:	–40ºC to +50ºC operational
Wallmount Chassis Storage Temperature Range:	–40ºC to +85ºC storage
Wallmount Chassis Operating Humidity	Up to 95 percent noncondensing
Regulatory Compliance	
Agency Approvals:	NEBS Level 3 GR-1089-CORE UL 60950

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Appendix A
DCC Operation on a Total Access RMC and WMC

ABSTRACT

This appendix contains information regarding communications over the SONET data communications channel (DCC) and its implementation on the ADTRAN Total Access RMC and WMC chassis. It will be referred to as the "OPTI-3 DCC".

Background information regarding the OSI stack and detailed information for configuring the OCMs have been provided.

NOTE

This practice assumes the reader is familiar with the Craft menu interface.

BACKGROUND

In order to exchange TL1 messages, end-to-end connectivity between an operation's system (OS) and a network element (NE) requires two separate connections to be established between:

- An OS and the Gateway NE (GNE) over an X.25 virtual connection (SVC or PVC); a Fujitsu FLM-150 or Alcatel Litespan 2012 are examples of a GNE.
- The GNE and the target NE over the SONET DCC; the Total Access 3000 RMC and WMC are examples of a target NE.

Session establishment is one-way, from the OS to the GNE (X.25) to the target NE (DCC). Once the session is established, the communication between the OS and the target NE is two-way. The GNE is responsible for establishing the OSI TL1 application association with the target NE. If the X.25 virtual circuit between the OS and the GNE goes down, the OSI association is also taken down by the GNE.

A target NE will send two kinds of TL1 messages: responses to commands and autonomous messages. Responses to TL1 commands use the same association over which the command was received. Telcordia has identified three types of associations that are required for which a NE would send responses. These are maintenance, memory management (provisioning), and testing. An NE would send alarm information in the autonomous messages.

OVERVIEW OF OSI ROUTING

A routing area is the smallest grouping of systems for routing purposes. It is a neighborhood of interconnected systems often called a "Level 1 Area". All systems within the area must have the same network address.

A routing domain is a collection of routing areas, all of which must follow the same routing policies. It is often called a "Level 2 Area". All systems within the domain must have the same system ID length. All routers within the domain must follow the same identical policies, and must not treat any systems in the area preferentially to others.

OSI networks consist of two types of systems:

- End systems (ES)
- Intermediate systems (IS).

Intermediate Systems perform the relay/routing function whereas End Systems do not.

There are two types of Intermediate Systems:

- A Level 1 IS routes packets to a destination within an area or to the nearest Level 2 IS for destinations outside the area.
- A Level 2 IS routes packets between two areas; it also performs Level 1 routing for the area that it is in.

All routing is based on the Network Service Access Point (NSAP) Address. An NSAP address is divided into an area address, a system ID, and an N-selector.

- The area address identifies an area within the routing domain.
- The system ID identifies an ES in the area.
- The N-selector is used by the ES to distinguish between multiple users of the

Connectionless Network Service (CLNS), which on the router includes ISO Transport Class 4 and TL1.

LINK STATE ROUTING

One of the most important tasks a router has to perform consists of detecting its immediate neighbors and memorizing this relationship in a database.

Detection of neighbor end systems relies on the ES-IS protocol operation. An ES periodically sends hello (ESH) packets to its neighbors.

Detection of neighbor intermediate systems relies on the IS-IS protocol operation. An IS periodically sends hello (ISH) packets to its neighbors.

Each IS spreads knowledge of its direct connectivity (e.g. its neighbors) to all other ISs. Level 1 routers advertise all of their neighbors to all other ISs in the area. Level 2 routers advertise all their Level 2 neighbors to all Level 2 routers in the domain along with their own area Ids.

As a result, each Level 1 IS forms a complete picture of the area, as a set of links. Likewise, each Level 2 IS forms a complete picture of the set of links that can be used to join areas together into a routing domain. Importantly, every IS in an area or domain has precisely the same picture of the area or domain, once the topology has stabilized and the routing information has been disseminated.

Using this picture, each IS traverses the entire graph using Dijkstra's Shortest Path First (SPF) algorithm. It finds, for each destination, the next hop to use on the best path to that destination. Level 1 ISs also find the shortest path to the nearest Level 2 IS. For Level 1 routing, the destination is a system ID; for Level 2 routing the destination is an area address.

It is necessary for all ISs in the area (for Level 1) or domain (for Level 2) to have the same picture of the area or domain. Otherwise, routing loops can occur because two ISs may each think that the other is on the shortest path to the destination sending packets back and forth between each other until the packet lifetime expires.

DCC SPECIFICATIONS

This section specifies the characteristics of the SONET DCC as implemented in the Total Access RMC and WMC products.

7-layer OSI stack

- Physical Layer
  1 SONET section DCC, a 192 Kbps channel carried in 3 section overhead bytes (D1, D2, and D3) of the first STS-1
  2 A separate stack exists per OCM; the DCC is protected bidirectionally – active TL1 sessions (with corresponding transport connections) will be lost if a fault occurs and the protection switch results in the idle DCC becoming active.

- Data Link Layer
  1. The protocol is the Link Access Protocol on the D-channel (LAPD) as specified in ITU-T Recommendation Q.921, ISDN user-network interface – Data link layer specification.
  2. Acknowledged information transfer service (AITS) is supported. Unacknowledged information transfer service (UITS) is not supported.
  3. The Command/Response value is user definable. The default is set to "User".

- Network Layer
  1. NSAP address as defined in GR-253-CORE
  2. The NSAP area address is user-definable and must match other NEs in the routing area. No default value is provided.
  3. The system ID is user definable and must be unique for each NE in the routing area. No default value is provided.
  4. The Globally Unique Network Layer Quality of Service (QoS) parameter is not supported.
  5. Maximum packet size is not definable and is fixed at 512 octets.

- Transport Layer
  1. Supports both end system (ES) and intermediate system (IS).

- Session Layer
  1. Standard implementation.

- Presentation Layer
  1. Standard implementation.

- Application Layer
  1. TL1 is supported.
  2. ACSE, ROSE/CMISE, FTAM, Name/Address Translation Services are not supported.

OPTI-3 DCC

1. Provisioning Data

1.1 System level provisioning defines parameters for the protocol stack. These parameters are the DCC State, the NSAP Area Address, the System ID, and the CLLI Code.

1.1.1 These parameters are maintained in nonvolatile storage enabling them to survive initializations.

1.1.2 Restoring factory defaults has “no effect” on these parameters.

1.1.3 There are no MIB objects for these parameters. They cannot be set remotely via SNMP.

1.1.4 DCC State

1.1.4.1 This parameter determines the command/response value used by the data link protocol.

1.1.4.2 This parameter has two possible values: user or network. It can be changed at any time.

1.1.4.3 The value “Network” must be used at the central office side of the OC-3 link.

1.1.4.4 The default value “User” should be used at the remote side of the OC-3 link.

1.1.4.5 This parameter is linked to the mate OCM.

1.1.5 NSAP Area Address

1.1.5.1 Two formats of NSAP are now recognized. If it starts with "39" it must have 26 hex characters. If it starts with "49" it must have 6 hex characters. No other prefix is allowed.

1.1.5.2 A default value for this parameter is not provided. A typical default value for an application in the United States, according to GR-253-CORE is “39840F8000000000000000000000”.

1.1.5.3 This parameter is linked to the mate OCM. It only has to be entered on the first OCM

1.1.5.4 During normal operation, the NSAP area address will have the same value on both OCM

1.1.5.5 The NSAP area address may be changed as often as desired during the “turnup” process without having to reboot the OPTI-3 to effect the change. The “DCC Operation” section explains how to change the area address once the OSI stack has been started.

1.1.6 System ID

1.1.6.1 This parameter is 12 hex characters. It is used in the Network Service Access Point (NSAP) address. The value entered is validated according to the format specified in GR-253-CORE.

1.1.6.2 This parameter has no default value.

1.1.6.3 This parameter is linked to the mate OCM. It only has to be entered on the first OCM

1.1.6.4 During normal operation, the System ID will have the same value on both OCMs.

1.1.6.5 The System ID may be changed as often as desired during the “turnup” process without having to reboot the OPTI-3 to effect the change. The “DCC Operation” section explains how to change the area address once the OSI stack has been started.

1.1.7 CLLI Code

1.1.7.1 The CLLI Code is used as the TL1 target ID (TID).

1.1.7.2 This parameter has no default value.

1.1.7.3 This parameter is linked to the mate OCM. It only has to be entered one time and on one OCM.

2. DCC Operation

2.1 Turnup

2.1.1 Plug in the first OCM.

2.1.1.1 No provisioning data exists in the serial EPROM, so it must be entered via the craft interface located on the front of the card.

2.1.1.2 If this OPTI-3 is to be used at the central office side, change the DCC Side parameter to "Network". Changes are not needed if this OPTI-3 is to be used at the remote side..

2.1.1.3 If this OPTI-3 is to be connected to another Vender's equipment, determine the NSAP area address by polling that equipment.

2.1.1.4 If the OPTI-3 is to be connected to another OPTI-3, in a back-to-back arrangement, use the default NSAP address.

2.1.1.5 Define a unique System ID that will identify the OPTI-3 as an NE.

2.1.1.6 Define a unique CLLI code that will identify the OPTI-3 as an NE.

2.1.1.7 Now enter the NSAP area address, system ID, and CLLI code. The OSI stack will be started after all three provisioning values are entered.

2.1.2 Plug in the second OCM.

2.1.2.1 No provisioning data exists in the serial EPROM and the mate OCM is provisioned and operational.

2.1.2.2 All provisioning will be downloaded from the mate.

2.1.2.3 The OSI stack will be started after the provisioning has been received from the mate OPTI-3..

2.2 Card Initialization

2.2.1 When the NSAP Area Address, the System ID, and the CLLI code are provisioned, a reset of the software, as in the case of a program download, will start the OSI stack after initialization.

2.3 Changing the NSAP Address

2.3.1 The NSAP area address or System ID can be changed at any time.

2.3.2 Changes made before the OSI stack is started are non-service-affecting and can be done whenever desired.

2.3.3 Changes made after the OSI stack has started is service-affecting and will require the software to be rebooted in order for the new address to take effect.

2.3.4 For the service-affecting case, an alert will appear on the menu indicating that the card must be rebooted for the address change to take effect.

2.3.5 Special care must be taken when typing in the area address. DCC communication will be adversely affected if the area address is incorrect.

2.3.6 The following steps illustrate how to change the NSAP address once the OSI stack has been started.

Step 1. Move all of the traffic to one of the OCMs.

Step 2. Change the area address or system ID on the "offline" OCM.

Step 3. Select the option to reboot the software after an address change on the "offline" OCM.

Step 4. Move all of the traffic to the "offline" OPTI-3.

Step 5. Repeat steps 2-3 to change the address on the other OCM.

3. State Information (status)

3.1 State information can only be retrieved from the Craft Interface located on the front of the OCM card. It cannot be retrieved remotely via SNMP or TL1.

3.1.1 State information is maintained on the main status screen.

3.1.2 State definitions:

3.1.2.1 Link Down – this state indicates that there is no communication across the DCC.

3.1.2.2 Link Up – this state indicates that there is communication across the DCC.

4. Troubleshooting

4.1 Troubleshooting communications problems when the DCC status shows “Link Down”

4.1.1 DCC mode mismatch

4.1.1.1 The DCC data link layer is not symmetrical. One side of the link must be configured as the network and the other side must be configured as the user.

4.1.1.2 Retrieve the provisioning for both ends of the DCC.

– verify the OPTI-3 DCC Side parameter is set to “user”.

– verify the Cmd/Resp parameter of the connected NE is set to “network”.

4.1.2 The DCC may not be enabled at the connected NE.

4.1.2.1 Refer to the appropriate vendor reference documentation.

4.1.2.2 If the equipment is a Fujitsu FLM, set the LAPD state to “in-service”.

4.1.3 The facility may have a physical fault.

4.1.3.1 Retrieve alarms to determine if alarms exist on the appropriate facility that could adversely affect the DCC.

4.1.3.2 Correct the facility fault and re-verify.

4.2 Troubleshooting communications problems once the DCC status shows “link up”.

4.2.1 Improper NSAP address

4.2.1.1 The NSAP area address must be the same for every network element in a routing area.

4.2.1.2 Retrieve the provisioning for both ends of the DCC

– verify that the NSAP area addresses match

4.2.2 System ID overlap

4.2.2.1 The System ID must be unique for every network element in a routing area. Since the Total Access RMC and WMC constitute a single NE, the System ID must be the same on both OCMs.

4.2.2.2 Retrieve the provisioning for the OPTI-3

– verify that the System ID is unique.

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Appendix B
TL1 Commands, Responses, and Autonomous Messages

ABSTRACT

This appendix provides a list of supported TL1 commands that correspond with items provisionable from the menus provided over the craft interface (see **Table B-1**). It also provides a list and description of supported TL1 commands that are separated from the menu functionality (see **Table B-2**). Finally, this document provides the format of autonomous messages due to alarms and events (see **Table B-3**).

A TL1 session may be initiated over an Ethernet or DCC connection. See the main body of this Installation and Maintenance Practice for more details concerning communication sessions.

Table B-1. TL1 Commands Corresponding to Menu Access

Menus	TL1 Command Syntax	
Log in	ACT-USER:<tid>:<username>:<ctag>::<password>	
	<username> is admin	
	<password> is password	
Log out	CANC-USER:<tid>::<ctag>	
Provisioning		
Working Service State		
In Service	ENT-OC3:<tid>:1-1:<ctag>::::IS	use for UAS to IS
	ED-OC3:<tid>:1-1:<ctag>::::IS	use for OOS to IS
Out of Service, Maintenance	ENT-OC3:<tid>:1-1:<ctag>::::OOS	use for UAS to OOS
	ED-OC3:<tid>:1-1:<ctag>::::OOS	use for IS to OOS
Out of Service, Unassigned	DLT-OC3:<tid>:1-1:<ctag>	
Protect Service State		
In Service	ENT-OC3:<tid>:1-2:<ctag>::::IS	use for UAS to IS
	ED-OC3:<tid>:1-2:<ctag>::::IS	use for OOS to IS
Out of Service, Maintenance	ENT-OC3:<tid>:1-2:<ctag>::::OOS	use for UAS to OOS
	ED-OC3:<tid>:1-2:<ctag>::::OOS	use for IS to OOS
Out of Service, Unassigned	DLT-OC3:<tid>:1-2:<ctag>	
Signal Failure Threshold	RTRV-OC3:<tid>::<ctag>	
10 E -3	ED-OC3:<tid>::<ctag>:::SF=3	
10 E -4	ED-OC3:<tid>::<ctag>:::SF=4	
10 E -5	ED-OC3:<tid>::<ctag>:::SF=5	
Signal Degradation Threshold	RTRV-OC3:<tid>::<ctag>	
10 E -5	ED-OC3:<tid>::<ctag>:::SF=5	
10 E -6	ED-OC3:<tid>::<ctag>:::SF=6	
10 E -7	ED-OC3:<tid>::<ctag>:::SF=7	
10 E -8	ED-OC3:<tid>::<ctag>:::SF=8	
10 E -9	ED-OC3:<tid>::<ctag>:::SF=9	
OC-3 Transmission Sync Message		
Derive From Source	ED-EQPT:<tid>::<ctag>:::TXSYNC=Y	
Don't Use	ED-EQPT:<tid>::<ctag>:::TXSYNC=N	
Clock Source		
Receive OC-3 A & B	ED-EQPT:<tid>::<ctag>:::CLKSRC=RX	
Receive OC-3 A	ED-EQPT:<tid>::<ctag>:::CLKSRC=RXA	
Receive OC-3 B	ED-EQPT:<tid>::<ctag>:::CLKSRC=RXB	
Free Run	ED-EQPT:<tid>::<ctag>:::CLKSRC=FR	
External DS1 SF or ESF both	ED-EQPT:<tid>::<ctag>:::CLKSRC=EX	
External DS1 SF or ESF PRI	ED-EQPT:<tid>::<ctag>:::CLKSRC=EXP	
External DS1 SF or ESF SEC	ED-EQPT:<tid>::<ctag>:::CLKSRC=EXS	
External DS1 ESF with Sync both	ED-EQPT:<tid>::<ctag>:::CLKSRC=EXSYNC	
External DS1 ESF with Sync PRI	ED-EQPT:<tid>::<ctag>:::CLKSRC=EXSYNCP	
External DS1 ESF with Sync SEC	ED-EQPT:<tid>::<ctag>:::CLKSRC=EXSYNCS	
DS3 Provisioning		
DS3 #1 Interface		
Enabled	ENT-T3:<tid>:3-1:<ctag>	
Disabled	DLT-T3:<tid>:3-1:<ctag>	
DS3 #1 Line Build Out		
Short	ED-T3:<tid>:3-1:<ctag>:::LBO=SHORT	
Long	ED-T3:<tid>:3-1:<ctag>:::LBO=LONG	
DS3 #2 Interface		
Enabled	ENT-T3:<tid>:3-2:<ctag>	
Disabled	DLT-T3:<tid>:3-2:<ctag>	

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
DS3 #2 Line Build Out	
Short	ED-T3:<tid>:3-2:<ctag>:::LBO=SHORT
Long	ED-T3:<tid>:3-2:<ctag>:::LBO=LONG
DS3 #3 Interface	
Enabled	ENT-T3:<tid>:3-3:<ctag>
Disabled	DLT-T3:<tid>:3-3:<ctag>
DS3 #3 Line Build Out	
Short	ED-T3:<tid>:3-3:<ctag>:::LBO=SHORT
Long	ED-T3:<tid>:3-3:<ctag>:::LBO=LONG
Provisionable Alarms	
Sonet Alarms	
OC3 LOS	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOS,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LOS,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOS,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LOS,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOS,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LOS,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOS,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LOS,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOS,CR,SA,<protected severity>,<protected service affecting>
OC3 LOF	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOF,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LOF,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOF,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LOF,MJ,NSA,<protected severity>,<protected service affecting>

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOF,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LOF,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LOF,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LOF,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LOF,CR,SA,<protected severity>,<protected service affecting>
OC3 AIS	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::AIS,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::AIS,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::AIS,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::AIS,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::AIS,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::AIS,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::AIS,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::AIS,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::AIS,CR,SA,<protected severity>,<protected service affecting>
OC3 RDI	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::RFI,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::RFI,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::RFI,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::RFI,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::RFI,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::RFI,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::RFI,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::RFI,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::RFI,CR,SA,<protected severity>,<protected service affecting>

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
OC3 SF	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::SF,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::SF,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::SF,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::SF,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::SF,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::SF,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::SF,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::SF,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::SF,CR,SA,<protected severity>,<protected service affecting>
OC3 SD	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::SD,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::SD,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::SD,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::SD,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::SD,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::SD,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::SD,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::SD,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::SD,CR,SA,<protected severity>,<protected service affecting>
STS1 #1 LOP-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::LOP-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #1 AIS-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::AIS-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #1 RDI-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::RDI-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #1 UNEQ-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::UNEQ-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #1 SLMF-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-1:<ctag>::SLMF,CR,SA,<protected severity>,<protected service affecting>
STS1 #2 LOP-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::LOP-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #2 AIS-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::AIS-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #2 RDI-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::RDI-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #2 UNEQ-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::UNEQ-P,CR,SA,<protected severity>,<protected service affecting>

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
STS1 #2 SLMF-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-2:<ctag>::SLMF,CR,SA,<protected severity>,<protected service affecting>
STS1 #3 LOP-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::LOP-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #3 AIS-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::AIS-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #3 RDI-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::RDI-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #3 UNEQ-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,NSA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::UNEQ-P,CR,SA,<protected severity>,<protected service affecting>
STS1 #3 SLMF-P	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-STS1:<tid>:2-3:<ctag>::SLMF,CR,SA,<protected severity>,<protected service affecting>
DS3 Alarms	
DS3 #1 LOS	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LOS,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
DS3 #1 LOL	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LOL,CR,SA
DS3 #1 TXO	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::TXO,CR,SA
DS3 #1 TXF	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::TXF,CR,SA
DS3 #2 LOS	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LOS,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
DS3 #2 LOL	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LOL,CR,SA
DS3 #2 TXO	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::TXO,CR,SA
DS3 #2 TXF	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::TXF,CR,SA
DS3 #3 LOS	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,SC,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LOS,CR,SA
DS3 #3 LOL	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LOL,CR,SA
DS3 #3 TXO	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::TXO,CR,SA
DS3 #3 TXF	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::TXF,CR,SA
System Alarms	
Clock Holdover	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCCLK,CR,SA
Clock Switch	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPS,CR,SA
Primary Clock Failure	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCPRI,CR,SA
Secondary Clock Failure	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::SYNCSEC,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protection Switc h	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::WKSWPR,CR,SA
Mate Unplugged	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::CTNEQPT,CR,SA
Primary Power Failure	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRPRI,CR,SA
Secondary Power Failure	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,MN,NSA
NSA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,MJ,NSA
NSA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,CR,NSA
SA Info	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,MN,SA
SA Major	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,MJ,SA
SA Critical	SET-ATTR-EQPT:<tid>:3-3:<ctag>::PWRSEC,CR,SA

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Diagnostic Alarms	
OC3 Line Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKLINE,CR,SA,<protected severity>,<protected service affecting>
OC3 Local Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Protected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,MN,NSA
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,MJ,NSA
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,CR,NSA
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,MN,SA
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,MJ,SA
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,<unprotected severity>,<unprotected service affecting>,CR,SA
Unprotected Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,SC,NSA,<protected severity>,<protected service affecting>
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,MN,NSA,<protected severity>,<protected service affecting>
NSA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,MJ,NSA,<protected severity>,<protected service affecting>
NSA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,CR,NSA,<protected severity>,<protected service affecting>
SA Info	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,SC,SA,<protected severity>,<protected service affecting>
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,MN,SA,<protected severity>,<protected service affecting>
SA Major	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,MJ,SA,<protected severity>,<protected service affecting>
SA Critical	SET-ATTR-OC3:<tid>::<ctag>::LPBKTERM,CR,SA,<protected severity>,<protected service affecting>
DS3 #1 Line Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKLINE,CR,SA
DS3 #1 Local Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-1:<ctag>::LPBKTERM,CR,SA
DS3 #2 Line Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKLINE,CR,SA
DS3 #2 Local Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-2:<ctag>::LPBKTERM,CR,SA
DS3 #3 Line Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKLINE,CR,SA
DS3 #3 Local Loop	
Full Alarm Name	not accessible from TL1
Condition Name	not accessible from TL1
Alarm Severity	
Disable	not accessible from TL1
NSA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,SC,NSA
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,MN,NSA
NSA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,MJ,NSA
NSA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,CR,NSA
SA Info	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,SC,SA
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,MN,SA
SA Major	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,MJ,SA
SA Critical	SET-ATTR-T3:<tid>:3-3:<ctag>::LPBKTERM,CR,SA
15-Minute Threshold Alarms	not accessible from TL1
Daily Threshold Alarms	not accessible from TL1
Environment Alarms	
Auxilliary #1	
Full Alarm Name	not accessible from TL1
Condition Name	SET-ATTR-ENV:<tid>:5-1:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-1:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-1:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-1:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-1:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-1:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-1:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-1:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-1:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-1:<ctag>:::HK=<value> <value> is an integer 1-16
Auxilliary #2	
Full Alarm Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Condition Name	SET-ATTR-ENV:<tid>:5-2:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-2:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-2:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-2:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-2:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-2:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-2:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-2:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-2:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-2:<ctag>:::HK=<value> <value> is an integer 1-16
Auxilliary #3	
Full Alarm Name	not accessible from TL1
Condition Name	SET-ATTR-ENV:<tid>:5-3:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-3:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-3:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-3:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-3:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-3:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-3:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-3:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-3:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-3:<ctag>:::HK=<value> <value> is an integer 1-16
Low Battery	
Full Alarm Name	not accessible from TL1
Condition Name	SET-ATTR-ENV:<tid>:5-6:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-6:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-6:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-6:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-6:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-6:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-6:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-6:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-6:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-6:<ctag>:::HK=<value> <value> is an integer 1-16
No Battery	
Full Alarm Name	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Condition Name	SET-ATTR-ENV:<tid>:5-7:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-7:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-7:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-7:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-7:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-7:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-7:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-7:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-7:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-7:<ctag>:::HK=<value> <value> is an integer 1-16
AC Power Failure	
Full Alarm Name	not accessible from TL1
Condition Name	SET-ATTR-ENV:<tid>:5-8:<ctag>::,,<condition name>
Alarm Severity	
Disable	SET-ATTR-ENV:<tid>:5-8:<ctag>::NA,NSA
NSA Info	not accessible from TL1
NSA Alert	not accessible from TL1
NSA Minor	SET-ATTR-ENV:<tid>:5-8:<ctag>::MN,NSA
NSA Major	SET-ATTR-ENV:<tid>:5-8:<ctag>::MJ,NSA
NSA Critical	SET-ATTR-ENV:<tid>:5-8:<ctag>::CR,NSA
SA Info	not accessible from TL1
SA Alert	not accessible from TL1
SA Minor	SET-ATTR-ENV:<tid>:5-8:<ctag>::MN,SA
SA Major	SET-ATTR-ENV:<tid>:5-8:<ctag>::MJ,SA
SA Critical	SET-ATTR-ENV:<tid>:5-8:<ctag>::CR,SA
TL-1 Description	SET-ATTR-ENV:<tid>:5-8:<ctag>::,,,<TL-1 description>
Housekeeping	ED-EQPT:<tid>:5-8:<ctag>:::HK=<value> <value> is an integer 1-16
Node ID	ED-EQPT:<tid>::<ctag>:::NODEID=<value> <value> is an integer 0-9
Power Supply	
Off	ED-EQPT:<tid>::<ctag>:::OPTI3PSD=0
Aux. Input #1	ED-EQPT:<tid>::<ctag>:::OPTI3PSD=1
Aux. Input #2	ED-EQPT:<tid>::<ctag>:::OPTI3PSD=2
Aux. Input #3	ED-EQPT:<tid>::<ctag>:::OPTI3PSD=3
Restore Alarm Defaults	not accessible from TL1
Time and Date	SET-DAT:<tid>::<ctag>::<dat>,<tm> <dat> is the date in YYMMDD format <tm> is the time in HHMMSS or HHMM format
Restore Factory Defaults	not accessible from TL1
Software Upgrade	not accessible from TL1
Test	
OC-3 Loopback Timeout	ED-OC3:<tid>::<ctag>:::LOOPTO=<value> <value> is an integer 1-300

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax	
Working OC-3 Loop		
None	RLS-LPBK-OC3:<tid>:1-1:<ctag>::,,,LINE	use for Line to None
	RLS-LPBK-OC3:<tid>:1-1:<ctag>::,,,LOCAL	use for Local to None
Line	OPR-LPBK-OC3:<tid>:1-1:<ctag>::,,,LINE	
Local	OPR-LPBK-OC3:<tid>:1-1:<ctag>::,,,LOCAL	
Protect OC-3 Loop		
None	RLS-LPBK-OC3:<tid>:1-2:<ctag>::,,,LINE	use for Line to None
	RLS-LPBK-OC3:<tid>:1-2:<ctag>::,,,LOCAL	use for Local to None
Line	OPR-LPBK-OC3:<tid>:1-2:<ctag>::,,,LINE	
Local	OPR-LPBK-OC3:<tid>:1-2:<ctag>::,,,LOCAL	
DS3 #1 Loop		
None	RLS-LPBK-T3:<tid>:2-1:<ctag>::,,,LINE	use for Line to None
	RLS-LPBK-T3:<tid>:2-1:<ctag>::,,,LOCAL	use for Local to None
Line	OPR-LPBK-T3:<tid>:2-1:<ctag>::,,,LINE	
Local	OPR-LPBK-T3:<tid>:2-1:<ctag>::,,,LOCAL	
DS3 #2 Loop		
None	RLS-LPBK-T3:<tid>:2-2:<ctag>::,,,LINE	use for Line to None
	RLS-LPBK-T3:<tid>:2-2:<ctag>::,,,LOCAL	use for Local to None
Line	OPR-LPBK-T3:<tid>:2-2:<ctag>::,,,LINE	
Local	OPR-LPBK-T3:<tid>:2-2:<ctag>::,,,LOCAL	
DS3 #3 Loop		
None	RLS-LPBK-T3:<tid>:2-3:<ctag>::,,,LINE	use for Line to None
	RLS-LPBK-T3:<tid>:2-3:<ctag>::,,,LOCAL	use for Local to None
Line	OPR-LPBK-T3:<tid>:2-3:<ctag>::,,,LINE	
Local	OPR-LPBK-T3:<tid>:2-3:<ctag>::,,,LOCAL	
Remove All Loopbackss	not accessible from TL1	
Path Trace		
Tx Path Trace	ED-OC3:<tid>::<ctag>:::TRACETX=<value> <value> is a 0-62 character string	
Rx Path Trace #1	RTRV-OC3:<tid>::<ctag>	
Rx Path Trace #2	RTRV-OC3:<tid>::<ctag>	
Rx Path Trace #3	RTRV-OC3:<tid>::<ctag>	
ICMP Ping	not accessible from TL1	
Working OC-3 Loop Remaining	RTRV-OC3:<tid>::<ctag>	
Protect OC-3 Loop Remaining	RTRV-OC3:<tid>::<ctag>	
Performance Monitoring		
OC3 Section		
Daily		
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVS,0-UP,NEND,,1-DAY,ALL;	
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESS,0-UP,NEND,,1-DAY,ALL;	
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESS,0-UP,NEND,,1-DAY,ALL;	
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVS,0-UP,NEND,,1-DAY,ALL;	
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESS,0-UP,NEND,,1-DAY,ALL;	
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESS,0-UP,NEND,,1-DAY,ALL;	
Quarter Hourly		
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVS,0-UP,NEND,,15-MIN,ALL;	

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESS,0-UP,NEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESS,0-UP,NEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVS,0-UP,NEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESS,0-UP,NEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESS,0-UP,NEND,,15-MIN,ALL;
Daily Thresholds	
Code Violations Enable	not accessible from TL1
Errored Seconds Enable	not accessible from TL1
Severely Errored Seconds Enable	not accessible from TL1
Code Violations Value	SET-TH-OC3:<tid>::<ctag>::CVS,<value>,,,1-DAY <value> is an integer
Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::ESS,<value>,,,1-DAY <value> is an integer
Severely Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::SESS,<value>,,,1-DAY <value> is an integer
Quarter Hourly Thresholds	
Code Violations Enable	not accessible from TL1
Errored Seconds Enable	not accessible from TL1
Severely Errored Seconds Enable	not accessible from TL1
Code Violations Value	SET-TH-OC3:<tid>::<ctag>::CVS,<value>,,,15-MIN <value> is an integer
Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::ESS,<value>,,,15-MIN <value> is an integer
Severely Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::SESS,<value>,,,15-MIN <value> is an integer
Clear Current Interval	not accessible from TL1
OC3 Line	
Daily	
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Working Protection Switch Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::PSC-L,0-UP,NEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protect Protection Switch Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::PSC-L,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Working Protection Switch Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::PSC-L,0-UP,NEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Protect Protection Switch Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::PSC-L,0-UP,NEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Far End Daily	
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Far End Quarter Hourly	
Working Code Violations	RTRV-PM-OC3:<tid>:1-1:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-OC3:<tid>:1-1:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-OC3:<tid>:1-1:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-OC3:<tid>:1-2:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protect Unavailable Seconds	RTRV-PM-OC3:<tid>:1-2:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-OC3:<tid>:1-2:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Daily Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-OC3:<tid>::<ctag>::CVL,<value>,,,1-DAY <value> is an integer
Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::ESL,<value>,,,1-DAY <value> is an integer
Severely Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::SESL,<value>,,,1-DAY <value> is an integer
Unavailable Seconds Value	SET-TH-OC3:<tid>::<ctag>::UASL,<value>,,,1-DAY <value> is an integer
Quarter Hourly Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-OC3:<tid>::<ctag>::CVL,<value>,,,15-MIN <value> is an integer
Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::ESL,<value>,,,15-MIN <value> is an integer
Severely Errored Seconds Value	SET-TH-OC3:<tid>::<ctag>::SESL,<value>,,,15-MIN <value> is an integer
Unavailable Seconds Value	SET-TH-OC3:<tid>::<ctag>::UASL,<value>,,,15-MIN <value> is an integer
STS-1 Path #1	
Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-1:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-1:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-4:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Protect Fault Count	RTRV-PM-STS1:<tid>:2-4:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-1:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-1:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-4:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-4:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Far End Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-1:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-1:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-4:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-4:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Far End Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-1:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-1:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-1:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-4:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-4:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-4:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Daily Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,1-DAY <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,1-DAY <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,1-DAY <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,1-DAY <value> is an integer
Quarter Hourly Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,15-MIN <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,15-MIN <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,15-MIN <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,15-MIN <value> is an integer
STS-1 Path #2	
Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-2:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-2:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-5:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-5:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-2:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-2:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-5:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-5:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Far End Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-2:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-2:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-5:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-5:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Far End Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-2:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-2:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-2:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-5:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-5:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-5:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Daily Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,1-DAY <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,1-DAY <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,1-DAY <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,1-DAY <value> is an integer
Quarter Hourly Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,15-MIN <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,15-MIN <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,15-MIN <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,15-MIN <value> is an integer
STS-1 Path #3	
Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-3:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-3:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-6:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-6:<ctag>::FC-L,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-3:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Working Fault Count	RTRV-PM-STS1:<tid>:2-3:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-6:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-6:<ctag>::FC-L,0-UP,NEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Far End Daily	
Working Code Violations	RTRV-PM-STS1:<tid>:2-3:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-3:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-6:<ctag>::CVL,0-UP,FEND,,1-DAY,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::ESL,0-UP,FEND,,1-DAY,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::SESL,0-UP,FEND,,1-DAY,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::UASL,0-UP,FEND,,1-DAY,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-6:<ctag>::FC-L,0-UP,FEND,,1-DAY,ALL;
Far End Quarter Hourly	
Working Code Violations	RTRV-PM-STS1:<tid>:2-3:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Working Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Working Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Working Unavailable Seconds	RTRV-PM-STS1:<tid>:2-3:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Working Fault Count	RTRV-PM-STS1:<tid>:2-3:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Protect Code Violations	RTRV-PM-STS1:<tid>:2-6:<ctag>::CVL,0-UP,FEND,,15-MIN,ALL;
Protect Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::ESL,0-UP,FEND,,15-MIN,ALL;
Protect Severely Errored Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::SESL,0-UP,FEND,,15-MIN,ALL;
Protect Unavailable Seconds	RTRV-PM-STS1:<tid>:2-6:<ctag>::UASL,0-UP,FEND,,15-MIN,ALL;
Protect Fault Count	RTRV-PM-STS1:<tid>:2-6:<ctag>::FC-L,0-UP,FEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
Daily Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,1-DAY <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,1-DAY <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,1-DAY <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,1-DAY <value> is an integer
Quarter Hourly Thresholds	
Code Violations Enable	not accessable from TL1
Errored Seconds Enable	not accessable from TL1
Severely Errored Seconds Enable	not accessable from TL1
Unavailable Seconds Enable	not accessable from TL1
Code Violations Value	SET-TH-STS1:<tid>::<ctag>::CVL,<value>,,,15-MIN <value> is an integer
Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::ESL,<value>,,,15-MIN <value> is an integer
Severely Errored Seconds Value	SET-TH-STS1:<tid>::<ctag>::SESL,<value>,,,15-MIN <value> is an integer
Unavailable Seconds Value	SET-TH-STS1:<tid>::<ctag>::UASL,<value>,,,15-MIN <value> is an integer
DS3 #1	
Daily	
Code Violations	RTRV-PM-T3:<tid>:3-1:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Errored Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Unavailable Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Code Violations	RTRV-PM-T3:<tid>:3-1:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Errored Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;
Unavailable Seconds	RTRV-PM-T3:<tid>:3-1:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;
Clear Current Interval	not accessible from TL1
DS3 #2	
Daily	
Code Violations	RTRV-PM-T3:<tid>:3-2:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;
Errored Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;
Unavailable Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;
Quarter Hourly	
Code Violations	RTRV-PM-T3:<tid>:3-2:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;
Errored Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax	
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;	
Unavailable Seconds	RTRV-PM-T3:<tid>:3-2:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;	
Clear Current Interval	not accessible from TL1	
DS3 #3		
Daily		
Code Violations	RTRV-PM-T3:<tid>:3-3:<ctag>::CVL,0-UP,NEND,,1-DAY,ALL;	
Errored Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::ESL,0-UP,NEND,,1-DAY,ALL;	
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::SESL,0-UP,NEND,,1-DAY,ALL;	
Unavailable Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::UASL,0-UP,NEND,,1-DAY,ALL;	
Quarter Hourly		
Code Violations	RTRV-PM-T3:<tid>:3-3:<ctag>::CVL,0-UP,NEND,,15-MIN,ALL;	
Errored Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::ESL,0-UP,NEND,,15-MIN,ALL;	
Severely Errored Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::SESL,0-UP,NEND,,15-MIN,ALL;	
Unavailable Seconds	RTRV-PM-T3:<tid>:3-3:<ctag>::UASL,0-UP,NEND,,15-MIN,ALL;	
Clear Current Interval	not accessible from TL1	
Clear Summary	not accessable from TL1	
Clear Data	not accessable from TL1	
Protection Configuration		
Optical Cable Type		
Single	ED-EQPT:<tid>::<ctag>:::YCABLE=NA	
Dual Cable	ED-EQPT:<tid>::<ctag>:::YCABLE=N	
Y-Cable	ED-EQPT:<tid>::<ctag>:::YCABLE=Y	
Working APS Lockout		
Inhibit	OPR-PROTNSW-OC3:<tid>:1-1:<ctag>::LOCKOUT	
Allow	RLS-PROTNSW-OC3:<tid>:1-1:<ctag>	
Protect APS Lockout		
Inhibit	OPR-PROTNSW-OC3:<tid>:1-2:<ctag>::LOCKOUT	
Allow	RLS-PROTNSW-OC3:<tid>:1-2:<ctag>	
Manual Switch	OPR-PROTNSW-OC3:<tid>:1-1:<ctag>::MAN	use for A to B
	OPR-PROTNSW-OC3:<tid>:1-2:<ctag>::MAN	use for B to A
Manual Clock Switch	not accessable from TL1	
Management Configuration		
Mount Location		
Central Office	ED-EQPT:<tid>::<ctag>:::CO=Y	
Remote Terminal	ED-EQPT:<tid>::<ctag>:::CO=N	
Subtended	ED-EQPT:<tid>::<ctag>:::CO=NA	
Remote Alarm Reporting	not accessable from TL1	
CLLI Code	SET-SID:<tid>::<ctag>::<value> <value> is a 0-20 character string	
Craft Interface	not accessable from TL1	
Ethernet Interface		
Ethernet Interface		
Enabled	ED-IP-ADDR:<tid>::<ctag>::::IS	
Disabled	ED-IP-ADDR:<tid>::<ctag>::::OOS	

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
IP Address	ED-IP-ADDR:<tid>::<ctag>:::IP=<value> <value> is IPv4 format xxx.xxx.xxx.xxx
Subnet Mask	ED-IP-ADDR:<tid>::<ctag>:::MASK=<value> <value> is IPv4 format xxx.xxx.xxx.xxx
Default Gateway	ED-IP-ADDR:<tid>::<ctag>:::DFTGWAY=<value> <value> is IPv4 format xxx.xxx.xxx.xxx
DCC Interface	
DCC Network State	
Network	ED-LLSDCC:<tid>::<ctag>:::L2SIDE=NETWORK
User	ED-LLSDCC:<tid>::<ctag>:::L2SIDE=USER
IP Address	ED-ULSDCC:<tid>::<ctag>:::IP=<value> <value> is IPv4 format xxx.xxx.xxx.xxx
NSAP Area Address	ED-ULSDCC:<tid>::<ctag>:::L3ADD=<value> <value> is an ASCII hex string, 13 bytes if starting with "39" or 3 bytes if starting with "49"
LAPD Window Size	ED-LLSDCC:<tid>::<ctag>:::L2IF=<valie> <value> is an integer 1-127
LAPD T200	ED-LLSDCC:<tid>::<ctag>:::L2WAIT=<valie> <value> is an integer 200-20000
LAPD T203	ED-LLSDCC:<tid>::<ctag>:::L2NOA=<valie> <value> is an integer 4000-120000
LAPD N200	ED-LLSDCC:<tid>::<ctag>:::L2REX=<valie> <value> is an integer 2-16
LAPD N201	ED-LLSDCC:<tid>::<ctag>:::L2INFO=<valie> <value> is an integer 512-1500
Application Interface	
TL1 Servier	
Enable	ED-IP-ADDR:<tid>::<ctag>:::TL1SERVER=Y
Disable	ED-IP-ADDR:<tid>::<ctag>:::TL1SERVER=N
TL1 Port	ED-IP-ADDR:<tid>::<ctag>:::TL1PORT=<value> <value> is an integer 256-2999
TL1 Echo	
Enable	ED-EQPT:<tid>::<ctag>:::TL1ECHO=Y
Disable	ED-EQPT:<tid>::<ctag>:::TL1ECHO=N
Menu Port	ED-IP-ADDR:<tid>::<ctag>:::MENUPORT=<value> <value> is an integer 23-2999
Menu Servier	
Enable	ED-IP-ADDR:<tid>::<ctag>:::MENUSERVER=Y
Disable	ED-IP-ADDR:<tid>::<ctag>:::MENUSERVER=N
SNMP Trap Generation	
Enable	ED-SNMP:<tid>::<ctag>:::TRAPS=Y
Disable	ED-SNMP:<tid>::<ctag>:::TRAPS=N
SNMP System Name	ED-SNMP:<tid>::<ctag>:::NAME=<value> <value> is a 0-63 character string
SNMP Location	ED-SNMP:<tid>::<ctag>:::LOCATION=<value> <value> is a 0-63 character string
SNMP Contact	ED-SNMP:<tid>::<ctag>:::CONTACT=<value> <value> is a 0-63 character string

Table B-1. TL1 Commands Corresponding to Menu Access (Continued)

Menus	TL1 Command Syntax
SNMP Read Community	ED-SNMP:<tid>::<ctag>:::READ=<value> <value> is a 0-63 character string
SNMP Write Community	ED-SNMP:<tid>::<ctag>:::WRITE=<value> <value> is a 0-63 character string
SNMP Trap Host	
Trap Host IP Address	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPIP=<value> <aid> is an integer 1-4 <value> is IPv4 format xxx.xxx.xxx.xxx
Trap Host Method	
Version 1	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPVER2=N
Version 2	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPVER2=Y <aid> is an integer 1-4
Trap Host Confirmation	
Enable	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPCONFIRM=Y
Disable	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPCONFIRM=N <aid> is an integer 1-4
Trap Host Timeout	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPTIME=<value> <aid> is an integer 1-4 <value> is an integer 1-10
Trap Host Retry Limit	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPRETRY=<value> <aid> is an integer 1-4 <value> is an integer 1-10
Trap Host Status	
Enable	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPVALID=Y
Disable	ED-SNMP:<tid>:<aid>:<ctag>:::TRAPVALID=N <aid> is an integer 1-4
Routing Configuration	
Create New Route	ED-RTE:<tid>:<aid>:<ctag>:::IP=<ip>,MASK=<mask>,NSAP=<nsap> <aid> is an integer 1-4 <ip> is IPv4 format xxx.xxx.xxx.xxx <mask> is IPv4 format xxx.xxx.xxx.xxx <nsap> is 19 bytes entered as an ASCII hex string
Delete Existing Route	DLT-RTE:<tid>:<aid>:<ctag> <aid> is an integer 1-4
Retrieve Established Routes	RTRV-RTE:<tid>::<ctag>
Remote Configuration	not accessable from TL1
Security Management	
Case Sensitive	not accessable from TL1
Create New Account	ENT-USER-SECU:<tid>:<uid>:<ctag>::<pid>,,<upc> <uid> is the new username <pid> is the new password <upc> is 1 for read-only, 3 for read-write, 4 for administrator
Delete Existing Account	DLT-USER-SECU:<tid>:<uid>:<ctag> <uid> is the username to delete
Retrieve Established User Accounts	RTRV-USER-SECU:<tid>::<ctag>
OSI Command Line	not accessable from TL1
Restore Management Defaults	not accessable from TL1
Remote Login	not accessable from TL1
Audiable Alarm Cutoff	OPR-ACO-ALL:<tid>::<ctag>

Table B-2. General TL1 Commands (Not Corresponding to Menu Access)

Function	TL1 Command Syntax
Allow autonomous messages	ALW-MSG-{type} {type} is the type of alarm
Use to allow DS3 alarm messages	T3
Use to allow STS-1 alarm messages	STS1
Use to allow OC3 alarm messages	OC3
Use to allow ENVIRONMENTAL alarm messages	ENV
Use to allow EQUIPMENT alarm messages	EQPT
Use to allow ALL alarm messages	ALL
Inhibit autonomous messages	INH-MSG-{type} {type} is the type of alarm
Use to inhibit DS3 alarm messages	T3
Use to inhibit STS-1 alarm messages	STS1
Use to inhibit OC3 alarm messages	OC3
Use to inhibit ENVIRONMENTAL alarm messages	ENV
Use to inhibit EQUIPMENT alarm messages	EQPT
Use to inhibit ALL alarm messages	ALL
Retrieve Header Information	RTRV-HDR
Retrieve System Information	RTRV-SYS
Retrieve Version Information	RTRV-VER or RTRV-VERSION
Retrieve Attributes of user defined environmental alarms	RTRV-ATTR-ENV
Retrieve Alarms	RTRV-ALM-{type} {type} is the type of alarm
Use to retrieve DS3 alarms	T3
Use to retrieve STS-1 alarms	STS1
Use to retrieve OC3 alarms	OC3
Use to retrieve ENVIRONMENTAL alarms	ENV
Use to retrieve EQUIPMENT alarms	EQPT
Use to retrieve ALL alarms except ENV	ALL
Retrieve Condition	RTRV-COND-{type} {type} is the type of alarm
Use to retrieve DS3 conditions	T3
Use to retrieve STS-1 conditions	STS1
Use to retrieve OC3 conditions	OC3
Use to retrieve EQUIPMENT conditions	EQPT
Use to retrieve ALL conditions	ALL
Retrieve DS3 Service State and Line Build Out	RTRV-T3
Retrieve OC-3 Status information	RTRV-OC3
Retrieve ALL PM Thresholds	RTRV-TH-ALL
Retrieve Information concerning Scheduled Performance Monitoring Messages	RTRV-PMSCHED-{type}; {type} is the type of alarm
Use to retrieve DS3 PM Schedules	T3
Use to retrieve STS-1 PM Schedules	STS1
Use to retrieve OC3 PM Schedules	OC3
Use to retrieve ALL PM Schedules	ALL
Schedule DS3 Perfomance Monitoring reports to be autonomously sent	SCHED-PMREPT-T3::<aid>:::<reptinvl>,<reptstattm>,<numrept>,<montype>,<monlev>,<locn>,,<tmper> <aid> - optional ALL show all DS3 ports 3-1 DS3 port #1 3-2 DS3 port #2 3-3 DS3 port #3 default default - show all

Table B-2. General TL1 Commands (Not Corresponding to Menu Access) (Continued)

Function	TL1 Command Syntax
Interval between reports	<reptinvl> - optional value-unit, where unit is MIN, HR, or DAY default is <tmper>
Start time	<reptstattm> - optional hour-minute default - start immediately
Number of times to send report	<numrept> - optional 0 delete schedule value > 0 report count default report indefinately
Types of PM data to send in each report	<montype> - optional CVS Code Violations, Section ESS Errored Seconds, Section SESS Severely Errored Seconds, Section CVL Code Violations, Line ESL Errored Seconds, Line SESL Severely Errored Seconds, Line UASL Unavailable Seconds, Line FC-L Fault Count, Line PSC-L Protection Switches, Line CVP Code Violations, Path ESP Errored Seconds, Path SESP Severely Errored Seconds, Path UASP Unavailable Seconds, Path FC-P Fault Count, Path ALL all default is all
Show either all PM data or just PM data containing errors	<monlev> - optional 0-UP show all 1-UP show only nonzero default show only nonzero
Location of PM data to be reported	<locn> - optional NEND show near-end PM FEND show far-end PM default show all
Intervals of PM data to be reported	<tmper> - optional 15-MIN quarter-hourly PM 1-DAY daily PM default daily PM
Schedule STS-1 Perfomance Monitoring reports to be autonomously sent	SCHED-PMREPT-STS1::<aid>:::<reptinvl>,<reptstattm>,<numrept>,<montype>,<monlev>,<locn>,,<tmper> <aid> - optional ALL show all STS-1 Paths 3-1 show Path #1 3-2 show Path #2 3-3 show Path #3 default show all
Interval between reports	<reptinvl> - optional value-unit, where unit is MIN, HR, or DAY default is <tmper>
Start time	<reptstattm> - optional hour-minute default - start immediately
Number of times to send report	<numrept> - optional 0 delete schedule value > 0 report count default report indefinately

Table B-2. General TL1 Commands (Not Corresponding to Menu Access) (Continued)

Function	TL1 Command Syntax
Types of PM data to send in each report	<montype> - optional CVS Code Violations, Section ESS Errored Seconds, Section SESS Severely Errored Seconds, Section CVL Code Violations, Line ESL Errored Seconds, Line SESL Severely Errored Seconds, Line UASL Unavailable Seconds, Line FC-L Fault Count, Line PSC-L Protection Switches, Line CVP Code Violations, Path ESP Errored Seconds, Path SESP Severely Errored Seconds, Path UASP Unavailable Seconds, Path FC-P Fault Count, Path ALL all default is all
Show either all PM data or just PM data containing errors	<monlev> - optional 0-UP show all 1-UP show only nonzero default show only nonzero
Location of PM data to be reported	<locn> - optional NEND show near-end PM FEND show far-end PM default show all
Intervals of PM data to be reported	<tmper> - optional 15-MIN quarter-hourly PM 1-DAY daily PM default daily PM
Schedule OC3 Perfomance Monitoring reports to be autonomously sent	SCHED-PMREPT-OC3::<aid>:::<reptinvl>,<reptstattm>,<numrept>,<montype>,<monlev>,<locn>,,<tmper> <aid> - optional All show all 1-1 OC-3 #1 1-2 OC-3 #2 default show all
Interval between reports	<reptinvl> - optional value-unit, where unit is MIN, HR, or DAY default is <tmper>
Start time	<reptstattm> - optional hour-minute default - start immediately
Number of times to send report	<numrept> - optional 0 delete schedule value > 0 report count default report indefinately
Types of PM data to send in each report	<montype> - optional CVS Code Violations, Section ESS Errored Seconds, Section SESS Severely Errored Seconds, Section CVL Code Violations, Line ESL Errored Seconds, Line SESL Severely Errored Seconds, Line UASL Unavailable Seconds, Line FC-L Fault Count, Line PSC-L Protection Switches, Line CVP Code Violations, Path ESP Errored Seconds, Path SESP Severely Errored Seconds, Path UASP Unavailable Seconds, Path FC-P Fault Count, Path ALL all default is all

Table B-2. General TL1 Commands (Not Corresponding to Menu Access) (Continued)

Function	TL1 Command Syntax
Show either all PM data or just PM data containing errors	<monlev> - optional 0-UP show all 1-UP show only nonzero default show only nonzero
Location of PM data to be reported	<locn> - optional NEND show near-end PM FEND show far-end PM default show all
Intervals of PM data to be reported	<tmper> - optional 15-MIN quarter-hourly PM 1-DAY daily PM default daily PM
Retrieve ALL PM Data	RTRV-PM-ALL::<aid>:::<montype>,<monlev>,<locn>,,<tmper>,<mondat>,<montm> <aid> - optional ALL show all 1-1 OC3 #1 1-2 OC3 #2 2-1 STS-1 Path #1 2-2 STS-1 Path #2 2-3 STS-1 Path #3 3-1 DS3 Port #1 3-2 DS3 Port #2 3-3 DS3 Port #3 default
Types of PM data to retrieve	<montype> CVS Code Violations, Section ESS Errored Seconds, Section SESS Severely Errored Seconds, Section CVL Code Violations, Line ESL Errored Seconds, Line SESL Severely Errored Seconds, Line UASL Unavailable Seconds, Line FC-L Fault Count, Line PSC-L Protection Switches, Line CVP Code Violations, Path ESP Errored Seconds, Path SESP Severely Errored Seconds, Path UASP Unavailable Seconds, Path FC-P Fault Count, Path ALL all default is all
Show either all PM data or just PM data containing errors	<monlev> - optional 0-UP show all 1-UP show only nonzero default show only nonzero
Location of PM data to be reported	<locn> - optional NEND show near-end PM FEND show far-end PM default show all
Intervals of PM data to be reported	<tmper> - optional 15-MIN quarter-hourly PM 1-DAY daily PM default daily PM
Date of PM data to be reported	<nondat> - optional month-day date of PM period to show ALL show all periods default show all periods
Starting time of PM data to be reported	<nontn> - optional hour-minute start time of PM period to show default start time of current PM period

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Table B-3. Autonomous Alarm/Event TL1 Message Formats and Parameters

Autonomous Alarm/Event TL1 Message Formats and Parameters

Environment Alarm Message

<almcde> <atag> REPT ALM ENV
"<aid>:<ntfcncde>,<almtype>,<date>,<time>,\"<almmsg>\""

Other Alarm Message

<almcde> <atag> REPT ALM <aidtype>
"<aid>:<ntfcncde>,<condtype>,<srveff>,<date>,<time>,<locn>,<dirn>"

Event Message

<almcde> <atag> REPT EVT <aidtype>
"<aid>:<condtype>,<condeff>,<date>,<time>,<locn>,<dirn>,,,<tmper>"

Possible parameter values:

<almcde> - A two-character severity code

A	Event / Cleared Alarm (second character is a space)
*	Minor Alarm (second character is a space)
**	Major Alarm
*C	Critical Alarm

<atag> - A sequence number that increments with each alarm

<aidtype> - The type of the origin of the alarm

- T3
- STS1
- OC3
- EQPT

<aid> - The origin of the alarm

1-1	OC3 section/line - facility A
1-2	OC3 section/line - facility B
2-1	STS path #1 - facility A
2-2	STS path #2 - facility A
2-3	STS path #3 - facility A
2-4	STS path #1 - facility B
2-5	STS path #2 - facility B
2-6	STS path #3 - facility B
3-1	DS3 port #1
3-2	DS3 port #2
3-3	DS3 port #3
4-1	Controller Card A
4-2	Controller Card B
5-1	ENV Alarm (Aux. Alarm #1)
5-2	ENV Alarm (Aux. Alarm #2)
5-3	ENV Alarm (Aux. Alarm #3)
5-4	ENV Alarm (PWRPRI)
5-5	ENV Alarm (PWRSEC)
5-6	ENV Alarm (LWBATVG)
5-7	ENV Alarm (BATTERY)
5-8	ENV Alarm (POWER)

<ntfcncde> - A two-character severity code

CL	CLeared alarm
MN	MiNor alarm
MJ	MaJor alarm
CR	CRitical alarm

Table B-3. Autonomous Alarm/Event TL1 Message Formats and Parameters (Continued)

Autonomous Alarm/Event TL1 Message Formats and Parameters

<almtype> - The type of alarm (These are provisionable. Defaults shown.)

AUX-1	Auxiliary Alarm #1
AUX-2	Auxiliary Alarm #2
AUX-3	Auxiliary Alarm #3
PRIPWR	Power A Failure
SECPWR	Power B Failure
LWBATVG	Low Battery
BATTERY	Missing/Failed Battery
POWER	AC Power Failure

<condtype> - The type of alarm

LOS	Loss of Signal
LOF	Loss of Framing
AIS	Alarm Indication Signal
SF	Signal Failure
SD	Signal Degradation
RFI	Remote Failure Indication
LOP-P	Loss of Pointer
UNEQ-P	Unequipped
SLM-F	Signal Label Mismatch
AIS-P	Alarm Indication Signal
RDI-P	Remote Failure Indication
LOL	Loss of Lock
TXO	Transmit Buffer Overflow
TXF	Transmit Driver Failure
SYNCCLK	Clock in Holdover
CTNEQPT	Equipment Loss of Protection
T-CVS	Code Violations Section
T-ESS	Errored Seconds Section
T-SESS	Severely Errored Seconds Section
T-SEFS-S	Severely Errored F Seconds Section
T-CVL	Code Violations Line
T-ESL	Errored Seconds Line
T-SESL	Severely Errored Seconds Line
T-UASL	Unavailable Seconds Line
T-CVP	Code Violations Path
T-ESP	Errored Seconds Path
T-SESP	Severely Errored Seconds Path
T-UASP	Unavailable Seconds Path
EQPT	Equipment Failure SA
SYNCSEC	Secondary Clock Failure
SYNCPRI	Primary Clock Failure
WKSWPR	Protection Switch Active
LPBKLINE	Line Loopback Active
LPBKTERM	Local Loopback Active
RTCLK	Real-time clock failure
SYNCPS	External-Clock Protection Switch

<condeff> - A two-character severity code

CL	standing condition CLeared
TC	Transient Condition
SC	Standing Condition

<srveff> - Whether or not the alarm is service affecting

SA	Service Affecting
NSA	Not Service Affecting

Table B-3. Autonomous Alarm/Event TL1 Message Formats and Parameters (Continued)

Autonomous Alarm/Event TL1 Message Formats and Parameters
<date> - The date of the alarm in MM-DD format
<time> - The time of the alarm in HH-MM-SS format
<almmsg> - Provisionable string describing the alarm
<locn> - The location of the alarm NEND Near End FEND Far End
<dirn> - The direction of the alarm TRMT Transmiting direction RCV Receiving direction NA Not Applicable
<tmper> - The time period of the alarm 1-DAY Daily 15-MIN Quarter Hourly Not Applicable

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Appendix C
Total Access OPTI-3 Ordering Information

ABSTRACT

The Total Access OPTI-3 Controller Module may be used in many different configurations. This Appendix provides the part numbers and quantities necessary for ordering the proper equipment.

The following abbreviations will be used throughout this document:

- RMC – OPTI-3 Rackmount Chassis
- WMC – OPTI-3 Wallmount Chassis
- OCM – OPTI-3 Controller Module

Two chassis are available, the RMC and WMC. The OCMs will only operate while installed in a chassis. There are a few details to be considered when ordering the OPTI-3 system.

Standard setup consists of an OCM installed in either an RMC or a WMC. This end will be connected, via one pair of optical fibers, to either another OPTI-3 system or some other NE that is GR-253 compliant. A redundant setup consists of two OCMs installed in either an RMC or a WMC. This end will be connected, via two pair of optical fibers, to either another OPTI-3 system or some other NE that is GR-253 compliant.

The OPTI-3 may be powered with an optional Total Access AC to –48 VDC Power Supply. This power supply may be supplemented with a battery pack that provides continued service during a loss of AC power. Both OPTI-3 chassis provide the option of redundant power terminals. To take full advantage of the redundancy capability, each chassis should have two Total Access AC to –48 VDC Power Supplies with battery backups.

Example Setup

OPTI-3 to OPTI-3 (Data and Power Redundancy): This example will provide OC-3 bandwidth between a Central Office and the communications closet of a building.

The OPTI-3 RMC will be installed in the central office. The RMC will contain two OCMs and both of the power terminals will be connected to a Fuse and Alarm Panel that is fed from two separate –48 VDC, –24 VDC or +24 VDC sources. Each OCM will be connected to the OPTI-3 in the communications closet of the offsite building using separate fiber optic cable pairs.

The OPTI-3 WMC will be mounted on the wall inside of the communications closet of the off site building. The WMC will contain two OCMs and both of the power terminals will be connected to separate Total Access AC to –48 VDC Power Supplies. Each power supply will be connected to an AC source and a Battery Pack. Each OCM will be connected to the OPTI-3 in the Central Office using separate fiber optic cable pairs.

The configuration described above provides a fully redundant OC-3 transport. The following parts are needed to build the configuration as discussed:

Quantity	Part Number	Description
1	1184001L1	WMC
4	1184002L1V	OCM
1	1184003L1	RMC
2	4184004L1	AC to –48 VDC Power Supply
2	1184007L1	Battery Backup/8Hr

Available Equipment

The Total Access OPTI-3 System may be ordered as individual pieces of equipment or as a complete system. The list below provides a description of the individual pieces available for the OPTI-3.

Part Number	Description
1184001L1	OPTI-3 Wall Mount Chassis
1184002L1V	OPTI-3 Controller Card
1184003L1	OPTI-3 19"/23" Rack Mount Chassis
4184004L1	OPTI-3 AC to -48VDC Power Supply
1184005L1	OPTI- 3 Blank Faceplate

Available Pre-configured Packages

ADTRAN has designated part numbers for multiple configurations of the Total Access OPTI-3 System for simplified ordering. **Table C-1** provides the configuration part number, a description of the system, and a list of the individual pieces of equipment that is included in package.

For pricing and availability, contact:

ADTRAN Sales

(800) 827-0807

Table C-1. Available Pre-Configured OPTI-3 Systems

Available Pre-Configured OPTI-3 Systems			
System Part Number	**Part Numbers Included**	**Description**	**Quantity**
WMC OPTI-3 w/Redundancy			
4184001L1	1184001L1 1184002L3	OPTI 3 Wall Mount Chassis OPTI 3 Controller Card	1 2
RMC OPTI-3 w/Redundancy			
4181003L1	1184003L1 1184002L3	OPTI 3 19"/23" Rack Mount Chassis OPTI 3 Controller Card	1 2
WMC OPTI-3 Non-Redundant			
4184001L2	1184001L1 1184002L3 1184005L1	OPTI 3 Wall Mount Chassis OPTI 3 Controller Card OPTI 3 Blank Faceplate	1 1 1
RMC OPTI-3 Non-Redundant			
4184003L2	1184003L1 1184002L3 1184005L1	OPTI 3 19"/23" Rack Mount Chassis OPTI 3 Controller Card OPTI 3 Blank Faceplate	1 1 1
WMC OPTI-3 w/ Redundancy/Battery Backup			
4184001L3	1184001L1 1184002L3 4184004L1 1184007L1	OPTI 3 Wall Mount Chassis OPTI 3 Controller Card OPTI 3 AC to -48 VDC Power Supply OPTI-3 Battery Backup/8Hr	1 2 1 1