



ENT Commands

This chapter provides ENT (enter) commands for the Cisco ONS 15454 SDH.

12.1 ENT-<MOD1PAYLOAD>

Enter (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ESCON, ETRCLO, GIGE, HDTV, ISC1, STM4, STM64, STM1, STM16, T3)

Usage Guidelines

This command creates a specified port.



Note

Support is limited to ports with PPMs (pluggable port modules).



Note

When 1GFICON and 2GFICON payloads are provisioned, distance extension=B2B is the default and only valid setting. Setting distance extension (using ED-nGFICON) to any other setting will be denied with a “Provisioning Rules Failed” error message.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

Category

Ports

Security

Provisioning

Input Format

ENT-<MOD1PAYLOAD>[:<TID>]:<AID>:<CTAG>[:::];

Input Example

ENT-GIGE:TID:FAC-5-1:1;

Input Parameters

Table 12-1 ENT-<MOD1PAYLOAD> Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.12 FACILITY” section on page 25-17

12.2 ENT-<MOD_RING>

Enter MS-SPRing

Usage Guidelines

This command creates either a two-fiber or four-fiber MS-SPRing.



Note

<RINGID> defaults to the string of the AID format of MSSPR-string.

Input examples:

Four-fiber MS-SPRing:

```
ENT-MSSPR:TID:MSSPR-N02ABC:CTAG:::RINGID=N02ABC,NODEID=3,MODE=4F,
RVRTV=Y,RVTM=5.0,SRVRTV=Y,SRVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,
EASTPROT=FAC-12-1,WESTPROT=FAC-13-1;
```

Two-fiber MS-SPRing:

```
ENT-MSSPR:TID:MSSPR-N04EFG:CTAG:::RINGID=N04EFG,NODEID=6,MODE=2F,RVRTV=Y,
RVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1;
```

The following actions will return error messages:

- If RINGID is different from the string presented in the AID format, an IIAC (RingId Does Not Match With AID) error message is returned.
- Sending this command to create a MS-SPRing with an out of range nodeid or ringid will return an IIAC (Invalid NodeId) or (Invalid RingId) error message.
- Sending this command to create 4-fiber MS-SPRing on STM4 cards, or 2-fiber MS-SPRing on STM1 cards will return an IIAC (Input, Invalid work/prot port) error message.
- Sending this command to create a MS-SPRing on an NE that already has five MS-SPRings will return a SRQN (MSSPR Creation Failed) error message because one NE is only allowed to have up to five MS-SPRings in this release.
- Sending this command to create a MS-SPRing on a port with 1+1 will return a SRQN (MSSPR Creation Failed) error message.
- If the system fails on getting IOR, an SROF (Get IOR Failed) error message is returned.
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- If any facility requested in this command is in use, an SPLD (Facility is Busy) error message is returned.
- An invalid creation query will return the SRQN (MSSPR Creation Failed) error message.
- Sending this command to provision the mode with an invalid MS-SPRING mode will return an IIDT (Invalid MSSPR Mode) error message.

8. Sending this command to modify SRVRTV or SRVTM on the two-fiber MS-SPRing will return an IDNV (Invalid Data for 2F-MSSPR) error message.
9. Sending this command to provision the nodeid with invalid data will return an IIAC (Invalid NodeId) error message.
10. Sending this command to provision the ringid with invalid data will return an IIAC (Invalid RingId) error message.
11. Sending this command with an invalid working AID will return an IIDT (Invalid MSSPR Working Facility) error message.
12. Sending this command with an invalid protection AID will return an IIDT (Invalid MSSPR Protect Facility) error message.
13. Changing the MS-SPRing nodeid with a duplicated ID will return a SROF (Cannot Set NodeId) error message.

**Note**

Both <EASTPROT> and <WESTPROT> are optional, but required for 4-fiber MS-SPRing creation.

**Note**

The ALL AID is invalid for this command.

Category

MS-SPRing

Security

Provisioning

Input Format

```
ENT-<MOD_RING>:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],NODEID=<NODEID>,
MODE=<MODE>,[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],
[SRVTM=<SRVTM>],EASTWORK=<EASTWORK>,WESTWORK=<WESTWORK>,
[EASTPROT=<EASTPROT>],[WESTPROT=<WESTPROT>];
```

Input Example

```
ENT-MSSPR:PETALUMA:MSSPR-2:123:::RINGID=2,NODEID=1,MODE=4F,RVRTV=Y,
RVTM=5.0,SRVRTV=Y,SRVTM=5.0,EASTWORK=FAC-5-1,WESTWORK=FAC-6-1,
EASTPROT=FAC-12-1,
WESTPROT=FAC-13-1;
```

Input Parameters

Table 12-2 ENT-<MOD_RING> Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.2 AidUnionId1” section on page 25-8. Identifies the MS-SPRing of the NE. ALL or MSSPR-ALL AIDs are not allowed for editing MS-SPRing. This command only supports a single MS-SPRing AID
RINGID	The MS-SPRing ID of the NE up to six characters. Valid characters are A-Z and 0-9. String
NODEID	The MS-SPRing node ID of the NE. NODEID ranges from 0 to 31. Integer
MODE	Mode with which the command is to be implemented. Identifies the MS-SPRing mode Parameter type is MSSPR_MODE—MS-SPRing mode
• 2F	Two-fiber MS-SPRing
• 4F	Four-fiber MS-SPRing
RVRTV	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time. Defaults to 5.0 Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
SRVRTV	The span revertive mode for four-fiber MS-SPRing only. Defaults to Y Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
SRVTM	The span revertive time for four-fiber MS-SPRing only. Defaults to 5.0 Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
EASTWORK	East working facility. AID from the “25.1.12 FACILITY” section on page 25-17
WESTWORK	West working facility. AID from the “25.1.12 FACILITY” section on page 25-17

Table 12-2 ENT-<MOD_RING> Input Parameters (continued)

Parameter and Values	Description
EASTPROT	East protecting facility. AID from the “25.1.12 FACILITY” section on page 25-17
WESTPROT	West protecting facility. AID from the “25.1.12 FACILITY” section on page 25-17

12.3 ENT-BULKROLL<STM_TYPE>

Enter Bulkroll (STM4, STM64, STM1, STM16)

Usage Guidelines

This command enters information about rolling traffic from one end point to another without interrupting service. This command supports line level rolling and bulk rolling and cannot be used for single path level rolling.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

Category

Bridge and Roll

Security

Provisioning

Input Format

ENT-BULKROLL-<STM_TYPE>:[<TID>]:<FROM>:<CTAG>:::RTOSTART=<RTOSTART>,[RFROMSTART=<RFROMSTART>],[RFROMEND=<RFROMEND>],[RMODE=<RMODE>],[CMDMDE=<CMDMDE>];

Input Example

ENT-BULKROLL-STM64:CISCO:FAC-6-1:123:::RTOSTART=VC3-13-1-1-1,RFROMSTART=VC3-6-1-1-1,RFROMEND=VC3-6-1-1-3,RMODE=AUTO,CMDMDE=FRCD;

Input Parameters

Table 12-3 ENT-BULKROLL-<STM_TYPE> Input Parameters

Parameter and Values	Description
FROM	One of the end points. Access identifier from the “25.1.12 FACILITY” section on page 25-17 for line level rolling and bulk rolling
RTOSTART	The starting time slot in the destination roll port. For bulk rolling only Parameter type is PATH—modifier for path commands
• VC3	Synchronous Transport Signal/Module Level-1 (51Mbs)

Table 12-3 ENT-BULKROLL-<STM_TYPE> Input Parameters (continued)

Parameter and Values	Description
• VC44C	Synchronous Transport Signal/Module Level-12 Concatenated (622Mbs)
• VC464C	Synchronous Transport Signal/Module Level-192 Concatenated (9952 Mbs)
• VC48C	Synchronous Transport Signal/Module Level-24 Concatenated (1240 Mbs)
• VC4	Synchronous Transport Signal/Module Signal Level-3 Concatenated (155 Mbs)
• VC416C	Synchronous Transport Signal/Module Level-48 Concatenated (2488 Mbs)
• VC42C	Synchronous Transport Signal/Module level-6 (310 Mbs)
• VC43C	Synchronous Transport Signal/Module Level-9 Concatenated (465 Mbs)
• VC11	Virtual Channel 11
• VC12	Virtual Channel 12
RFROMSTART	The starting time slot in the source roll port. For bulk rolling only Parameter type is PATH—modifier for path commands
• VC3	Synchronous Transport Signal/Module Level-1 (51Mbs)
• VC44C	Synchronous Transport Signal/Module Level-12 Concatenated (622Mbs)
• VC464C	Synchronous Transport Signal/Module Level-192 Concatenated (9952 Mbs)
• VC48C	Synchronous Transport Signal/Module Level-24 Concatenated (1240 Mbs)
• VC4	Synchronous Transport Signal/Module Signal Level-3 Concatenated (155 Mbs)
• VC416C	Synchronous Transport Signal/Module Level-48 Concatenated (2488 Mbs)
• VC42C	Synchronous Transport Signal/Module level-6 (310 Mbs)
• VC43C	Synchronous Transport Signal/Module Level-9 Concatenated (465 Mbs)
• VC11	Virtual Channel 11
• VC12	Virtual Channel 12
RFROMEND	The ending time slot in the source roll port. For bulk rolling only Parameter type is PATH—modifier for path commands
• VC3	Synchronous Transport Signal/Module Level-1 (51Mbs)
• VC44C	Synchronous Transport Signal/Module Level-12 Concatenated (622Mbs)
• VC464C	Synchronous Transport Signal/Module Level-192 Concatenated (9952 Mbs)

Table 12-3 ENT-BULKROLL-<STM_TYPE> Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> VC48C 	Synchronous Transport Signal/Module Level-24 Concatenated (1240 Mbs)
<ul style="list-style-type: none"> VC4 	Synchronous Transport Signal/Module Signal Level-3 Concatenated (155 Mbs)
<ul style="list-style-type: none"> VC416C 	Synchronous Transport Signal/Module Level-48 Concatenated (2488 Mbs)
<ul style="list-style-type: none"> VC42C 	Synchronous Transport Signal/Module level-6 (310 Mbs)
<ul style="list-style-type: none"> VC43C 	Synchronous Transport Signal/Module Level-9 Concatenated (465 Mbs)
<ul style="list-style-type: none"> VC11 	Virtual Channel 11
<ul style="list-style-type: none"> VC12 	Virtual Channel 12
RMODE	The mode of the rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> AUTO 	Automatic. When a valid signal is available, the roll under AUTO mode will automatically delete the previous end-point.
<ul style="list-style-type: none"> MAN 	Manual. Enter the corresponding delete roll/bulkroll command to delete the previous end-point.
CMDMDE	Command execution mode. Defaults to NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> FRCD 	Force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> NORM 	Execute the command normally. Do not override any conditions that could make the command fail

12.4 ENT-CRS-<PATH>

Enter VC Cross-Connection (VC3, VC44C, VC38C, VC464C, VC48C, VC4, VC416C, VC42C, VC43C, VC12)

Usage Guidelines

This command creates an VC cross-connection with a cross-connection type (CCT). Refer to the [Cisco ONS SONET TL1 Reference Guide](#) for ring provisioning procedures.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

When a SNCP cross-connection is created, the path presented by the first AID is configured to be the preferred path. For example, the AID (F1) of the cross-connection (created by ENT-CRS-VC3::F1&F2,T1:123;) is the preferred path.

**Note**

- The default cross-connection type is 2-way
- If a path is already in a connection, it cannot be in another connection even if the other is a 1-way and the new one will be 1-way the other direction.
- This command does not support creating multiple VC cross-connections.
- The SNCP cross VC connection can be created by using “&” in the AID fields of this command.
 - The following command is used to create a 1-way selector or 2-way selector and bridge with:
 from points: F1, F2
 to points: T1
 ENT-CRS-{ VC_PATH }:[<TID>]:F1&F2,T1:<CTAG>::[<CCT>];
 - The following command is used to create a 1-way bridge or 2-way selector and bridge with:
 from point: F1
 to points: T1, T2
 ENT-CRS-{ VC_PATH }:[<TID>]:F1,T1&T2:<CTAG>::[<CCT>];
 - The following command is used to create a 1-way subtending SNCP connection or 2-way subtending SNCP connection with:
 from point: F1, F2
 to points: T1, T2
 ENT-CRS-{ VC_PATH }:[<TID>]:F1&F2,T1&T2:<CTAG>::[<CCT>];
 - The following command is used to create a 2-way selector and bridge with:
 from point: F1,F2 (F1 is the working side, F2 is the protect side)
 selector points: S1, S2 (S1 is the working side, S2 is the protect side)
 ENT-CRS-{ VC_PATH }:[<TID>]:F1&F2,S1&S2:<CTAG>::2WAY;
 - The following command is used to create a SNCP IDRI Cross-Connection:
 ENT-CRS-{ VC_PATH }:[<TID>]:A&B,C&D:<CTAG>::2WAYDC;
 A–Path on ring X to which traffic from ring Y is bridged
 B–Path on ring X to which traffic from the same ring is bridged
 C–Path on ring Y to which traffic from ring X is bridged
 D–Path on ring Y to which traffic from the same ring is bridged
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for SNCP IDRI cross-connections.
 - The following command is used to create a SNCP DRI cross-connection:
 ENT-CRS-{ VC_PATH }:[<TID>]:A&B,C:<CTAG>::2WAYDC;
 A–Path on ring X to which traffic from ring Y is bridged
 B–Path on ring X to which traffic from the same ring is bridged
 C–Traffic to and from ring Y
 A, B, C, and D have a positional meaning. Connection type 2WAYDC is used for SNCP DRI cross-connections.

- All A&B AIDs in the TL1 cross-connection command are in the format of WorkingAID&ProtectAID.
- To establish a cross-connection on a 2-fiber protection path or on a 4-fiber protection channel, the PCA connection type (1WAYPCA or 2WAYPCA) is required.
- If you send a PCA cross-connection type on the non-PCA AIDs, the IIAC error message is returned.
- If you send a non-PCA cross-connection type on the PCA AIDs, the IIAC error message is returned.
- The facility AID is only valid on slots holding a G1K-4 card.
- The virtual facility AID (VFAC) is only valid on slots holding an ML-Series card.
- Both DRITYPE and DRINODE optional fields are introduced in this release to support the MSSPR-DRI feature. DRITYPE is applied only if the CCT is drop-and-continue (1WAYDC or 2WAYDC), and defaults to SNCP for the DRI. DRINODE must be specified only if at least one end of the connection is on the MS-SPRing, and defaults to NA.
- CKTID is a string of ASCII characters. The maximum length of CKTID is 48. If the CKTID is EMPTY or NULL the field will not appear.
- VC38c cross-connects are supported only on the FC_MR-4 card and optical cards.
- The DS3i-N-12 card will only allow the creation of VC4 cross-connects. The starting point of the cross-connect can only be VC numbers 1, 4, 7, and 10. This cross-connect will span over 3 ports of the DS3i-N-12 card.

Category

Cross Connections

Security

Provisioning

Input Format

```
ENT-CRS-<PATH>:[<TID>]:<SRC>,<DST>:<CTAG>::<CCT>:[DRITYPE=<DRITYPE>],
[DRINODE=<DRINODE>],[CKTID=<CKTID>],[CMDMDE=<CMDMDE>]:<PST>[,<SST>];
```

Input Example

```
ENT-CRS-VC4:BODEGA:VC4-5-1-1&VC4-6-1-1,VC4-12-1-1&VC4-13-1-1:116::1WAYDC:
DRITYPE=MSSPR,DRINODE=PRI,CKTID=CKTID,CMDMDE=CMDMDE:UNLOCKED,
AUTOMATICINSERVICE;
```

Input Parameters**Table 12-4 ED-CRS-< PATH> Input Parameters**

Parameter and Values	Description
SRC	Source access identifier from the “25.1 ALL” section on page 25-1. Listable
DST	Destination AID from the “25.1 ALL” section on page 25-1

Table 12-4 ED-CRS-< PATH> Input Parameters (continued)

Parameter and Values	Description
CCT	Type of connection. Used for specifying one or two-way connections. Default is 2-way Parameter type is CCT—type of cross-connect to be created
• 1WAY	A unidirectional connection from a source tributary to a destination tributary
• 1WAYDC	SNCP multicast drop with (1-way) continue
• 1WAYEN	SNCP multicast end node (1-way continue)
• 1WAYMON	A bidirectional connection between the two tributaries Note 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved via TL1.
• 1WAYPCA	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
• 2WAY	A bidirectional connection between the two tributaries
• 2WAYDC	A bidirectional drop and continue connection applicable only to SNCP Traditional and Integrated Dual Ring InterConnections
• 2WAYPCA	A bidirectional connection between the two tributaries on the extra protection path/fiber
• DIAG	Diagnostics cross-connect. Supports BERT (MS-SPRing PCA diagnostics cross-connect)

12.5 ENT-EQPT

Enter Equipment

Usage Guidelines

This command enters the card type and attributes for a given equipment slot in the NE. It also automatically enters all facilities supported by the card, assigning default values to all facility and path attributes.

The ENT-EQPT command is also used to pre-provision an NE configured in multi-shelf mode.

The command supports optional parameters: RVTM (revertive time), RVRTV (revertive behavior), PROTID (unique protection ID) and PRTYPE (protection type) for configuring the card in an equipment protection group. PRTYPE can be 1:1 and 1:N. These parameters can only be entered for a working AID. The protect card must already be provisioned before creating the protection group.

1:1 protection involves the odd slot protecting the even slot. The work-protect pair is as follows (2-1, 4-3, 6-5, 16-17, 14-15, 12-13). E1, E2, E3, and DS3i-N-12 and other electrical cards support 1:1 protection. The value of PROTID is the protecting slot and is of the form “slot-x”. This command creates a 1:1 protection group. If the command has the optional parameters for creating a protection group and the protection group cannot be created due to an error condition, provisioning of the equipment fails.

The PROTID slot must be provisioned first.

To create 1:1 with the ENT-EQPT command, the working card should not be provisioned first, so the AID type field should be presented in ENT-EQPT for the AID on this <AID>.

1:N protection is always revertive. For 1:N protection, the protect slot can only be Slot 3 or Slot 15. For a protect card in Slot 3, the working cards can be in any of the slots on Bank A. Slot 15 is for protection in Bank B. A 1:1 protection cannot be upgraded to 1:N protection. This command creates a 1:N protection group or adds a new card to an existing 1:N protection group. Multiple working AIDs can be entered in a protection group.

If the provisioning fails for some AIDs, PRTL responses will be provided indicating failed AIDs. If the provisioning fails for all the AIDs, a DENY response will be provided. For both CMLPD and PRTL responses on creating protection group query, the protection group has been created for the successful AID(s) query.

The ENT-EQPT command provisions a new card and adds it to the protection group. The ED-EQPT command adds the already provisioned cards to the protection group.

Protect AID should already be provisioned for either command because protection group parameters are not supported for the protect AID.

The ENT-EQPT command provisions an equipment successfully on an empty slot if the equipment type is compatible with the slot number. This command can have the optional parameters in the “f” block to provision a card as a working card. It has the effect of adding the protection behavior at the time of provisioning itself. For the protection provisioning to succeed, the protect card should have already been provisioned. Trying to execute ENT-EQPT to provision a protection group on an already provisioned card will result in an error.

**Note**

The STM64-XFP card must be installed in one of the high speed slots {5-6,12-13} and requires an XCVXC-10G cross connect card.

**Note**

RETIME provisioning is only allowed on the DS1-E1-56 card.

Error conditions for creating 1:1 or 1:N protection groups are:

- AID sent to a non-working slot; the working cards must be in even slots for 1:1 and in the same bank for 1:N and not in Slot 3 or Slot 15.
- Invalid AID chosen for protection slot.
- Working AID is already in protection group.
- AID is a protect AID.
- The protect card has a circuit.
- The equipment type does not match with the allowed AID.
- The slot is already provisioned.
- The protecting slot is not provisioned.
- Multiple working AIDs for 1:1 protection.
- If the command mode (CMDMDE) is set to forced (FRCD) during the creation of a 1:1 or 1:N protection group, all cards must be physically plugged in and in the service state (Unlocked). If the cards are not physically plugged in, then the command is denied with an appropriate error message. When the command mode is set to normal (NORM) (which is the default) the cards do not have to be physically plugged in and in the service state.

Category Equipment

Security Provisioning

Input Format ENT-EQPT:[<TID>]:<AID>:<CTAG>::[<EQPTTYPE>]:[PROTID=<PROTID>],
[PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],
[CARDMODE=<CARDMODE>],[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],
[CMDMDE=<CMDMDE>],[TRANSMODE=<TRANSMODE>],[RETIME=<RETIME>],
[SHELFROLE=<SHELFROLE>][:];

Input Example ENT-EQPT:PETALUMA:SLOT-12:118::DS3XM-12:PROTID=SLOT-13,PRTYPE=1-1,RVRTV=Y,
RVTM=8.5,CARDMODE=DS3XM12-ST512,PEERID=SLOT-3,REGENNAME="REGEN GROUP",
CMDMDE=FRCD,TRANSMODE=FRCD,RETIME=Y,SHELFROLE=NC;
ENT-EQPT:PETALULMA:SHELF-1:116::SHELF:SHELFROLE=SC;

Input Parameters

Table 12-5 ENT-EQPT Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.11 EQPT” section on page 25-16
<EQPTTYPE>	The type of facility, link or other addressable entity targeted by the message Parameter type is EQUIPMENT_TYPE—equipment type
• 10DME-C	10DME-C card
• 10DME-L	10DME-L card
• 32DMX	32 channel demultiplexer
• 32DMX-L	32 channel demultiplexer unit for L-band
• 32DMX-O	32 channel unidirectional optical demultiplexer
• 32MUX-O	32 channel unidirectional optical multiplexer
• 32WSS	32 channel optical wavelength selective switch
• 32WSS-L	32 channel wavelength switch selector unit for L-band
• 4MD-xx.x	Optical multiplexer/demultiplexer with 4 channels
• AD-1B-xx.x	Optical add/drop multiplexed (OADM) 1 band filter
• AD-1C-xx.x	Optical add/drop multiplexed (OADM) 1 channel filter
• AD-2C-xx.x	Optical add/drop multiplexed (OADM) 2 channel filter
• AD-4B-xx.x	Optical add/drop multiplexed (OADM) 4 band filter
• AD-4C-xx.x	Optical add/drop multiplexed (OADM) 4 channel filter
• AIC-I	AIC-I card

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• CE-1000-4	CE-1000-4 card
• CE-100T-8	Eight port 100T card
• DS3i-N-12	DS3i-N-12 card
• E1-42	E1-42 card
• E1-N-14	E1-N-14 card
• E1000-2-G	E1000-2-G
• E100T-G	E100T-G card
• E3-12	E3-12 card
• FC_MR-4	FC_MR-4 card
• FILLER-CARD	Blank Filler card
• G1K-4	Four port G1000 card
• MIC-A/P	MIC-A/P card
• MIC-C/T/P	MIC-C/T/P card
• ML1000-2	ML-Series two port gigabit Ethernet card
• ML100T-12	ML-Series 12 port FSTE card
• ML100X-8	Eight port 100T card with optical interface
• MMU	Multiring/mesh upgrade unit
• MRC-12	12 port multirate optical card
• MXP_2.5G_10E	2.5-Gbps-10-Gbps Muxponder-100 GHz-Tunable xx.xx-xx.xx card
• MXP_2.5G_10E_L	2.5-Gbps-10-Gbps Muxponder-100 GHz-Tunable xx.xx-xx.xx card for L-band
• MXP_2.5G_10E_C	2.5-Gbps-10-Gbps Muxponder-100 GHz-Tunable xx.xx-xx.xx card for C-band
• MXP_2.5G_10G	2.5-Gbps-10-Gbps muxponder-100 GHz-tunable xx.xx-xx.xx card
• MXP_MR_2.5G	2.5-Gbps multirate muxponder-100 GHz-tunable 15xx.xx-15yy.yy card
• MXPP_2.5G_10G	2.5-Gbps-10-Gbps muxponder-protected-100 GHz-tunable xx.xx-xx.xx card
• MXPP_MR_2.5G	2.5-Gbps multirate muxponder-protected-100 GHz-tunable 15xx.xx-15yy.yy card
• OPT-AMP-L	Optical preamplifier unit for L-Band
• OPT-BST	Optical booster amplifier
• OPT-BST-L	Optical booster unit for L-Band
• OPT-PRE	Optical preamplifier
• OSC-CSM	Optical service channel (OSC) with combiner/separators Module (SCM)

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• OSCM	Optical service channel module
• PPM-1	Pluggable port module with one SFP port
• SHELF	Shelf entity
• STM1	STM1 card
• STM1-8	Eight port STM1 card
• STM1E-12	STM1E-12
• STM4	STM4 card
• STM4-4	Four port STM4 card
• STM16	STM16 card
• STM64	STM64 card
• STM64-XFP	One port STM64 XFP
• TCC2	TCC2 card
• TCC2P	TCC2P card
• TXP_MR_10E	10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXP_MR_10E_C	10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card for C-band
• TXP_MR_10E-L	10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card for L-band
• TXP_MR_10G	10-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXP_MR_2.5G	2.5-Gbps multirate transponder-100-GHz-tunable xx.xx-xx.xx card
• TXPP_MR_2.5G	2.5-Gbps multirate transponder-protected-100-GHz-tunable xx.xx-xx.xx card
• UNKNOWN	Unknown equipment type
• UNPROVISIONED	Unprovisioned type
• XC-VXC-10G	XC-VXC-10G card
• XC-VXL-2.5G	XC-VXL-2.5G card
• XC-VXL-10G	XC-VXL-10G card
PROTID	Protecting card slot identifier of the protection group from the “25.1.20 PRSLOT” section on page 25-22 Note Not applicable to TXP_MR_10G and MXP_2.5G_10G cards.

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
PRTYPE	Protection group type Note Not applicable to TXP_MR_10G and MXP_2.5G_10G cards Parameter type is PROTECTION_GROUP—protection group type
• 1-1	1 to 1 protection
• 1-N	1 to N protection
RVRTV	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Note Not applicable to TXP_MR_10G and MXP_2.5G_10G cards Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
CARDMODE	Card mode Note The card will reboot after the mode changes so the mode change request will not go through if all the ports on the card are not in Locked mode. TL1 will not set a default CARD_MODE value at the management interface level if no PWL value is given Parameter type is CARDMODE—card mode. Card mode is applicable to cards that have multiple capabilities, for example, the ML-Series card can operate in two distinct modes: Linear Mapper Mode and L2/L3 Mode
• AMPL-BST	The optical amplifier is working as an optical booster
• AMPL-PRE	The optical amplifier is working as an optical pre-amplifier
• DS1E1-DS1ONLY	DS1 mode on DS1E1 card
• DS1E1-E1ONLY	E1 mode on DS1E1 card
• DWDM-LINE	Line terminating mode
• DWDM-SECTION	Section terminating mode
• DWDM-TRANS-AIS	Transparent mode AIS
• DWDM-TRANS-SQUELCH	Transparent mode SQUELCH

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
• FCMR-DISTEXTN	FC_MR-4 card with distance extension support
• FCMR-LINERATE	FC_MR-4 card without distance extension support
• ML-GFP	ML-Series card in DOS FPGA using GFP framing type
• ML-HDLC	ML-Series card in DOS FPGA using HDLC framing type
• MXPMR10DME-4GFC	4 Gbps Fibre Channel/FICON mode for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports one and five
• MXPMR10DME-4GFC-FCGEISC	4 Gbps Fibre Channel/FICON supported on port one and Fibre Channel, GIGE and ISC modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports five to eight
• MXPMR10DME-FCGEISC	Fibre Channel, GIGE and ISC modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on all eight ports
• MXPMR10DME-FCGEISC-4GFC	Fibre Channel, GIGE and ISC modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports one to four and 4 Gbps Fibre Channel/FICON supported on port five
• MXPMR10G-FCGEISC	Fibre Channel, GIGE and ISC modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on all 8 ports (MXP-MR-10DME)
• MXPMR10G-4GFC	4 Gbps Fibre Channel/FICON mode for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports 1 and 5 (MXP-MR-10DME)
• MXPMR10G-FCGEISC-4GFC	Fibre Channel, GIGE and ISC modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports 1 to 4 and 4 Gbps Fibre Channel/FICON supported on port 5 (MXP-MR-10DME)
• MXPMR10G-4GFC-FCGEISC	4 Gbps Fibre Channel/FICON supported on port 1 and Fibre Channel, GIGE and ISC Modes for the Cisco ONS 15454 SDH 10DME-C/10DME-L card supported on ports 5 to 8 (MXP-MR-10DME)
• MXPMR25G-ESCON	ESCON mode for the Cisco ONS 15454 SDH MXP_2.5G_10G card
• MXPMR25G-FCGE	Fibre channel or GIGE mode for the MXP_2.5G_10G card
• MXPMR25G-MIXED	Mixed Fibre Channel, GIGE and ESCON modes for the Cisco ONS 15454 SDH MXP_2.5G_10G card
PEERID	The regeneration peer slot from the “25.1.11 EQPT” section on page 25-16
REGENNAME	Name of a regeneration group. String

Table 12-5 ENT-EQPT Input Parameters (continued)

Parameter and Values	Description
CMDMDE	Command Mode. Applicable only when creating 1:1 or 1:N protection groups and/or adding cards to an existing protection group (1:N). If creating or adding cards to a protection group, specifying FRCD requires the card to be physically plugged in and in a ready state (Unlocked). Default is NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied
• FRCD	Force the system to override a state in which the command would normally be denied
• NORM	Execute the command normally. Do not override any conditions that could make the command fail
TRANSMODE	The parameter type is CMDMDE, which forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state where the command would normally be denied.
• FRCD	Force the system to override a state where the command would normally be denied.
• NORM	Execute the command normally. Do not override any conditions that could make the command fail.
RETIME	Indicates the retime function for all the facilities on this card. Applies only to the DS1-E1-56 card Parameter type is ON_OFF—disable or enable an attribute
• N	Disable an attribute
• Y	Enable an attribute
SHELFROLE	The role of the shelf in the context of the node. When it is omitted it defaults to SC. The parameter is SHELF_ROLE.
• NC	The shelf behaves as a node controller.
• SC	The shelf behaves as a shelf controller.

12.6 ENT-FFP-<MOD2DWDMPAYLOAD>

Enter Facility Protection Group (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, HDTV, ISC1, ISC3, PASSTHRU)

Usage Guidelines

This command creates Y-cable protection on client facilities.

Refer to the *Cisco ONS SONET TL1 Reference Guide* for specific card provisioning rules.

Category DWDM

Security Provisioning

Input Format ENT-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<SRC>,
<DST>:<CTAG>:::[PROTOTYPE=<PROTOTYPE>],[PROTID=<PROTID>],[RVRTV=<RVRTV>],
[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];

Input Example ENT-FFP-HDTV:CISCO:FAC-1-1-1,FAC-2-1-1:100::PROTOTYPE=Y-CABLE,
PROTID=DC-METRO-1,RVRTV=Y,RVTM=1.0,PSDIRN=BI;

Input Parameters

Table 12-6 ENT-FFP-<MOD2DWDMPAYLOAD> Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “ 25.1.12 FACILITY ” section on page 25-17
DST	Destination access identifier from the “ 25.1.12 FACILITY ” section on page 25-17
PROTOTYPE	The type of facility protection Parameter type is PROTOTYPE—protection type for DWDM client facilities
<ul style="list-style-type: none"> • Y-CABLE 	Y-cable protection for the client ports on TXP_MR_10G/MXP_2.5G_10G and TXP_MR_2.5G/TXPP_MR_2.5G cards
PROTID	Protection group identifier. Defaults to the protecting port AID of the protection group. String that can have a maximum length of 32 characters
RVRTV	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N. Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> • N • Y 	Disable an attribute Enable an attribute
RVTM	Revertive time. Defaults to 5.0 minutes Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> • 0.5 to 12.0 	Revertive time is 0.5 to 12.0 minutes

Table 12-6 ENT-FFP-<MOD2DWDMPAYLOAD> Input Parameters (continued)

Parameter and Values	Description
PSDIRN	Protection switch operation. Identifies the switching mode. Defaults to UNI Note TXP_MR_10G and MXP_2.5G_10G does not support bidirectional switching Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching

12.7 ENT-FFP-<STM_TYPE>

Enter Facility Protection Group (STM1, STM4, STM16, STM64)

Usage Guidelines

This command creates an optical 1+1 protection.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.



Note

- Protect AID must not be provisioned with traffic.
- Work AID can be provisioned with traffic.
- PROTID is a string and can have a maximum length of 32 characters.
- The following parameters are supported in Release 6.0 and later: OPOTYPE, VRGRDTM, DTGRDTM AND RCGRDTM.
- 1+1 protection group rules for the MRC-12 card:
 - A 1+1 protection group can only be created between MRC-12 Cards. You cannot create a 1+1 protection group between an MRC-12 card and an STM16 card, for example.
 - A 1+1 protection group can be created only using the same port number. For example, a protection group cannot be created between Port-1 of Slot-5 and Port-4 of Slot-12 (assuming Slot-5 and Slot-12 both contain MRC-12 cards).
 - A 1+1 protection group cannot be created between ports on the same card. Protection groups cannot be created between Port-1 of Slot-5 and Port-4 of Slot-5 (assuming Slot-5 contains a MRC-12 Card).
 - Both the cards in the protection group must be placed in the same type of slot. Both MRC-12 cards must be in drop slots {1-4, 14-17} or both in trunk slots {5-6,12-13}; you cannot create a protection group between an MRC-12 card in a drop slot and another MRC-12 card in a trunk slot.
- 1+1 protection group rules for the STM64-XFP card:
 - 1+1 PG can be created between two STM64-XFP cards in trunk slots {5-6,12-13}.
 - 1+1 PG can be created between a STM64-XFP card and an STM64LR/STM64LH card in trunk slots {5-6,12-13}.

- The PROTYPE parameter is only applicable for optical DWDM cards.

Category

Protection

Security

Provisioning

Input Format

```
ENT-FFP-<STM_TYPE>:[<TID>]:<WORK>,<PROTECT>:<CTAG>:::[PROTOTYPE=<PROTOTYPE>],
[PROTID=<PROTID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],
[OPOTYPE=<OPOTYPE>],[VRGRDTM=<VRGRDTM>],[DTGRDTM=<DTGRDTM>],
[RCGRDTM=<RCGRDTM>][:];
```

Input Example

```
ENT-FFP-STM1:PETALUMA:FAC-2-1,FAC-1-1:1:::PROTOTYPE=Y-CABLE,
PROTID=PROT_NAME,RVRTV=Y,RVTM=1.0,PSDIRN=BI,OPOTYPE=STANDARD,
VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0;
```

Input Parameters**Table 12-7** ENT-FFP-<STM_TYPE> Input Parameters

Parameter and Values	Description
WORK	Working port from the “ 25.1.12 FACILITY ” section on page 25-17
PROTECT	Protection port from the “ 25.1.12 FACILITY ” section on page 25-17
PROTID	Protection group identifier. Defaults to the protecting port AID of the protection group. If the name has an embedded double quote character, that double quote character has to be escaped with a backslash \”. The double quotes are special characters that delimit the protection group name and they must be balanced (paired). PROTID is a string that has a maximum length of 32 characters
RVRTV	Revertive mode. The value Y indicates that the protection switching system reverts service to the original line after restoration. The value N indicates that the protection switching system does not revert service to the original line after restoration. RVRTV is applicable only for 1+1 protection switching. Null defaults to N Parameter type is ON_OFF—disable or enable an attribute
<ul style="list-style-type: none"> N 	Disable an attribute
<ul style="list-style-type: none"> Y 	Enable an attribute
RVTM	Revertive time. Defaults to 5.0 minutes Parameter type is REVERTIVE_TIME—revertive time
<ul style="list-style-type: none"> 0.5 to 12.0 	Revertive time is 0.5 to 12.0 minutes

Table 12-7 ENT-FFP-<STM_TYPE> Input Parameters (continued)

Parameter and Values	Description
PSDIRN	Protection switch operation. Identifies the switch mode Parameter type is TRANS_MODE—G1000 transponder mode
<ul style="list-style-type: none"> • BI 	Bidirectional
<ul style="list-style-type: none"> • NONE 	Not in transponder mode
<ul style="list-style-type: none"> • UNI 	Unidirectional
OPOTYPE	One plus one protection type. Can be either standard or optimized 1+1 Parameter type is ONE_PLUS_ONE—one plus one protection type
<ul style="list-style-type: none"> • Optimized 	Optimized 1+1 Note The port must be in SDH mode.
<ul style="list-style-type: none"> • Standard 	Standard 1+1
VRGRDTM	Verification guard timer. Only applicable to optimized 1+1 Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
<ul style="list-style-type: none"> • 0.5 	500 ms
<ul style="list-style-type: none"> • 1.0 	1 second
DTGRDTM	Detection guard timer. Only applicable to optimized 1+1 Parameter type is DETECTION_GUARD_TIMER—optimized 1+1 detection guard timer
<ul style="list-style-type: none"> • 0.0 	0 seconds
<ul style="list-style-type: none"> • 0.05 	50 ms
<ul style="list-style-type: none"> • 0.1 	100 ms
<ul style="list-style-type: none"> • 0.5 	500 ms
<ul style="list-style-type: none"> • 1.0 	1 second
<ul style="list-style-type: none"> • 2.0 	2 second
<ul style="list-style-type: none"> • 3.0 	3 seconds
<ul style="list-style-type: none"> • 4.0 	4 seconds
<ul style="list-style-type: none"> • 5.0 	5 seconds
RCGRDTM	Recovery guard timer. Only applicable to optimized 1+1 Parameter type is RECOVERY_GUARD_TIMER—optimized 1+1 detection guard timer
<ul style="list-style-type: none"> • 0.0 	0 seconds
<ul style="list-style-type: none"> • 0.05 	50 ms
<ul style="list-style-type: none"> • 0.1 	100 ms
<ul style="list-style-type: none"> • 0.5 	500 ms
<ul style="list-style-type: none"> • 1.0 	1 second
<ul style="list-style-type: none"> • 2.0 	2 second

Table 12-7 ENT-FFP-<STM_TYPE> Input Parameters (continued)

Parameter and Values	Description
• 3.0	3 seconds
• 4.0	4 seconds
• 5.0	5 seconds
• 6.0	6 seconds
• 7.0	7 seconds
• 8.0	8 seconds
• 9.0	9 seconds
• 10.0	10 seconds

12.8 ENT-LNK

Enter Optical Link

Usage Guidelines

This command creates an optical link between two optical connection points. The optical links can be established between two OTS or two OMS of the same band, and two OCH of the same wavelength. The created optical link must be between points belonging to the same ring directionality. An optical link between two OMS or two OCH can be HITLESS if the connection is between two points from one drop to a consecutive add in the logical link.

Category

DWDM

Security

Provisioning

Input Format

ENT-LNK:[<TID>]:<FROM>,<TO>:<CTAG>::::<PST>[,<SST>];

Input Example

ENT-LNK:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114::::LOCKED,
AUTOMATICINSERVICE;

Input Parameters

Table 12-8 ED-LNK-<MOD2O> Input Parameters

Parameter and Values	Description
FROM	Identifier at one end of the optical link from the “25.1.3 BAND” section on page 25-9
TO	Identifier at the other end of the optical link from the “25.1.3 BAND” section on page 25-9

Table 12-8 ED-LNK-<MOD20> Input Parameters (continued)

Parameter and Values	Description
PST	Primary state of the entity Parameter type is PST—primary state. Indicates the current overall service condition of an entity
• Unlocked	In Service
• Locked	Out of Service
SST	Secondary state of the entity Parameter type is SST—secondary state. Provides additional information pertaining to PST and PSTQ
• AutomaticInService	Automatic in service
• Disabled	Disabled
• Loopback	Loopback
• MismatchofEquipmentAlarm	Mismatch of equipment and attributes
• Maintenance	Maintenance mode
• OutOfGroup	Out of group
• SoftwareDownload	Software downloading
• Unassigned	Unassigned
• NotInstalled	Unequipped

12.9 ENT-LNKTERM

Creates a Provisionable Patchcord Termination

Usage Guidelines

This command creates a provisionable patchcord (PP) termination (virtual link) on a physical interface. A user-provisioned link is needed when the control channel (DCC) is transparently carried over several physical links, where the physical link cannot be automatically discovered by OSPF due to lack of control channel termination or when the link does not support SONET/SDH.

The error message “Provisioning Rules Failed” will be responded when the provisioning rules are not satisfied. The following rules must be satisfied while creating a provisionable patchcord termination on a physical interface:

- For a SONET/SDH port:
 - It must have RS-DCC/MS-DCC termination provisioned. If it is the protect facility in a 1+1 protection group the corresponding working facility must have RS-DCC/MS-DCC termination provisioned.
 - If it is part of a MS-SPRing the RS-DCC/MS-DCC must be provisioned on all of the working ports of the MS-SPRing.
- For a TXP/MXP trunk port, either G.709 must be enabled or the payload type must be non-SONET/SDH
- For a TXP/MXP client port, a card must be operating in the transparent termination mode.

- MSTP OCH port

**Note**

- If the STM interface is a part of a 1+1 protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If the client interface is a part of a Y-cable protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If the MXP/TXP trunk interface is a part of a splitter protection group, a separate PP termination can be provisioned on the other (working/protect) interface also.
- If REMOTENODE is specified as an IP address (or a node name that can be resolved by the GNE) that is different from the local node's IP address/name, this termination is intended to be a part of an inter-node provisionable patchcord.
- All end points of the provisionable patchcord need to be provisioned correctly (on the local and/or remote node) for it to show as UP in OSPF.
- Misconfigured or partially configured provisionable patchcords will not cause alarms/events to be generated at either end of the link.
- No two provisionable patchcord terminations on a node can be configured to have the same remote node PP termination information (for example, the combination of values for REMOTENODE and REMOTELNKTERMAID attributes for a PP termination must be unique on a single node).
- All provisionable patchcord terminations on one physical interface must have their remote terminations on a single remote node.
- The command does not accept multiple and ALL style AIDs.

Category

Provisionable Patchcords

Security

Provisioning

Input Format

```
ENT-LNKTERM:[<TID>]:<AID>:<CTAG>:::PORT=<PORT>,
[REMOTENODE=<REMOTENODE>],REMOTELNKTERMID=<REMOTELNKTERMID>;
```

Input Example

```
ENT-LNKTERM::LNKTERM-1:CTAG:::PORT=FAC-5-1,REMOTENODE=172.20.208.225,
REMOTELNKTERMID=20;
```

Input Parameters

Table 12-9 ENT-LNKTERM Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.16 LNKTERM” section on page 25-21. Indicates a link (provisionable patchcord) termination on the local node.
PORT	The local port corresponding to this provisionable patchcord termination from the “25.1.6 CHANNEL” section on page 25-11
REMOTENODE	The node where the other end of the provisionable patchcord resides. This can be an IP address or a valid TID. Defaults to the IP address of the local node/existing value. String
REMOTELNKTERMID	The corresponding provisionable patchcord termination on the remote node (as specified by the REMOTENODE parameter). Integer value within the range of 1 to 65535. Defaults to existing value

12.10 ENT-OCHCC

The Enter Optical Channel Client Connection (ENT-OCHCC) command allocates an OCH client connection. This is the portion of the circuit that connects the end client ports using trail ports to an OCH network connection circuit. This allocates the portion of circuit between the OCH filter port to the TXP/MXP or ITU-T client port.

Usage Guidelines

- The client port FAC AID must be specified in order to allocate a client channel inside the node.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.

Category

DWDM

Security

Provisioning

Input Format

```
ENT-OCHCC:[<TID>]:<AID>:<CTAG>[::CKTID=<CKTID>],
[CMDMDE=<CMDMDE>]:[<PST>][,<SST>];
```

Input Example

```
ENT-OCHCC:VA454-22:FAC-2-1-1:116::CKTID="OCHCC-1",
CMDMDE=FRCD:LOCKED,DISABLED;
```

Input Parameters		
<AID>		Access identifier from the “25.1.12 FACILITY” section on page 25-17.
<CKTID>		Cross-connect ID. The default is Blank or None. String of ASCII characters. Maximum length is 48. If CKTID is empty or null the CKTID field will not be displayed.
<CMDMDE>		The parameter type is command mode, which forces the system to execute a given command regardless of any standing conditions. NORM mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied.
	• FRCD	Force the system to override a state in which the command would normally be denied.
	• NORM	Execute the command normally. Do not override any conditions that may make the command fail.
<PST>		Primary state. The parameter type is PST, which indicates the current overall service condition of an entity.
	• Unlocked	In service
	• Locked	Out of service
<SST>		Secondary state. The parameter type is SST, which provides additional information pertaining to PST and PSTQ.
	• AutomaticInService	Automatic in service
	• Disabled	Disabled
	• Loopback	Loopback
	• MismatchofEquipmentAlarm	Mismatch of equipment and attributes
	• Maintenance	Maintenance mode
	• OutOfGroup	Out of group
	• SoftwareDownload	Software downloading
	• Unassigned	Unassigned
	• NotInstalled	Unequipped

12.11 ENT-OCHNC

The Enter Optical Channel Network Connection (ENT-OCHNC) command allocates an OCH network connection.

Usage Guidelines

- Two CHANWL end points must be specified in order to allocate a wavelength channel inside the node. According to the CHANWL specified, the channel allocated can be a passthrough
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. In order to obtain the current value, issue the RTRV-XX command.

Category

DWDM

Security

Provisioning

Input Format

```
ENT-OCHNC:[<TID>]:<SRC>,<DST>:<CTAG>::[<WCT>]:[CKTID=<CKTID>],
[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];
```

Input Example

```
ENT-OCHNC:VA454-22:LINEWL-1-3-TX-1530.33,
CHANWL-4-1-RX-1530.33:116::1WAY:CKTID=CIRCUIT,
CMDMDE=FRCD:LOCKED,DISABLED;
```

Input Parameters

SRC	Source access identifier from the “ 25.1.6 CHANNEL ” section on page 25-11 . In 2-way wavelength connection sources both directions need to be indicated.
DST	Destination access identifier from the “ 25.1.15 LINEWL ” section on page 25-20 . In 2-way wavelength connection sources both directions need to be indicated.
WCT	Wavelength connection type. The parameter type is WCT. The default is 1WAY.
<ul style="list-style-type: none"> 1WAY 	A unidirectional wavelength connection for one specified ring direction.
<ul style="list-style-type: none"> 2WAY 	A bidirectional wavelength connection for both the ring directions.
CKTID	Cross-connect ID. The default is Blank or None. String of ASCII characters. Maximum length is 48. If CKTID is empty or null the CKTID field will not be displayed.
CMDMDE	The parameter type is command mode, which forces the system to execute a given command regardless of any standing conditions. NORM mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied.
<ul style="list-style-type: none"> FRCD 	Force the system to override a state in which the command would normally be denied.
<ul style="list-style-type: none"> NORM 	Execute the command normally. Do not override any conditions that may make the command fail.
PST	Primary state. The parameter type is PST, which indicates the current overall service condition of an entity.
<ul style="list-style-type: none"> Unlocked 	In service
<ul style="list-style-type: none"> Locked 	Out of service
SST	Secondary state. The parameter type is SST, which provides additional information pertaining to PST and PSTQ.
<ul style="list-style-type: none"> AutomaticInService 	Automatic in service
<ul style="list-style-type: none"> Disabled 	Disabled
<ul style="list-style-type: none"> Loopback 	Loopback
<ul style="list-style-type: none"> MismatchofEquipmentAlarm 	Mismatch of equipment and attributes
<ul style="list-style-type: none"> Maintenance 	Maintenance mode

• OutOfGroup	Out of group
• SoftwareDownload	Software downloading
• Unassigned	Unassigned
• NotInstalled	Unequipped

12.12 ENT-OSC

Enter Optical Service Channel

Usage Guidelines

This command creates the OSC (optical service channel) group of the NE.



Note

RINGID defaults to the AID number.

Category

DWDM

Security

Provisioning

Input Format

ENT-OSC:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],[NODEID=<NODEID>],
[EAST=<EAST>],[WEST=<WEST>];

Input Example

ENT-OSC:PENNGROVE:OSC-1:114:::RINGID=10,NODEID=1,EAST=FAC-8-1,WEST=FAC-10-1;

Input Parameters

Table 12-10 ENT-OSC Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.19 OSC” section on page 25-22. Identifies the OSC group of the NE
RINGID	OSC ring ID of the NE. It ranges from 1 to 9999. Default value is “# of AID OSC-#”. Integer
NODEID	OSC node ID of the NE. It ranges from 0 to 31. Integer
EAST	The east STM1 facility from the “25.1.12 FACILITY” section on page 25-17. EAST_STM1 is the AID facility. Only one STM1 for the east direction is supported in this release. Optional
WEST	The west STM1 facility from the “25.1.12 FACILITY” section on page 25-17. WEST_STM1 is the AID facility. Only one STM1 for the west direction is supported in this release. Optional

12.13 ENT-RMONTH-<MOD2_RMON>

Enter Remote Monitoring Threshold (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, FSTE, G1000, GFPOS, GIGE, OCH, POS)

Usage Guidelines

This command creates an entry in the RMON alarm table for the threshold of data statistics (GIGE or FC, for example) managed by the RMON engine. After creating the RMON threshold (RMONTH) a TCA event will be generated and reported to the TL1 session when the threshold is crossed.

More than one threshold can be created with different parameters for each data statistic type.

See [Table 27-1 on page 27-1](#) for supported modifiers by platform.

Category

Performance

Security

Provisioning

Input Format

```
ENT-RMONTH-<MOD2_RMON>:[<TID>]:<SRC>:<CTAG>::<MONTYPE>,,,
<INTVL>:RISE=<RISE>,FALL=<FALL>,[SAMPLE=<SAMPLE>],[STARTUP=<STARTUP>][:];
```

Input Example

```
ENT-RMONTH-GIGE:CISCO:FAC-2-1:1234::ETHERSTATSOCTETS,,,100:RISE=1000,
FALL=100,SAMPLE=DELTA,STARTUP=RISING;
```

Input Parameters

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.12 FACILITY” section on page 25-17 . AID for the facility that the data statistics are managed by
MONTYPE	Monitored type. Type of RMON monitored data statistics Parameter type is ALL_MONTYPE—monitoring type list
<ul style="list-style-type: none"> AISSP 	Alarm Indication Signal Seconds—Path
<ul style="list-style-type: none"> ALL 	All possible values
<ul style="list-style-type: none"> BBEP 	SDH Background Block Errors Path
<ul style="list-style-type: none"> BBE-PM 	OTN—Background Block Errors—Path Monitor Point
<ul style="list-style-type: none"> BBER 	SDH Background Block Error Ratio
<ul style="list-style-type: none"> BBER-PM 	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
<ul style="list-style-type: none"> BBER-SM 	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters (continued)

Parameter and Values	Description
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section
• DCG	8B10B—Data Code Groups
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ESR	Errored Second—Ratio
• ESR-PM	Errored Seconds Ratio—Path monitor Point expressed as 1/10th of a percentage
• ESR-SM	Errored Seconds Ratio—Section monitor Point expressed as 1/10th of a percentage
• ESS	Errored Seconds—Section
• ES-SM	OTN—Errored Seconds—Section Monitor Point
• ESV	Errored Seconds—VC Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAAlignErrors	The total number of packets received that have a length (excluding framing bits, but including FCS octets) of between 64 and 1518 octets
• etherStatsDropEvents	Number of received frames dropped at the port level
• etherStatsFragments	The total number of packets received that were less than 64 octets
• etherStatsJabbers	The total number of packets received that are longer than 1518 octets
• etherStatsOctets	The total number of octets of data
• etherStatsOversizePkts	The total number of packets received that are longer than 1518 octets
• etherStatsPkts	The total number of packets (including bad packets, broadcast packets, and multicast packets) received
• etherStatsUndersizePkts	The total number of packets received that are less than 64 octets
• FCP	Failure Count—Line

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters (continued)

Parameter and Values	Description
• FC-PM	OTN—Failure Count—Path Monitor Point
• FC-SM	OTN—Failure Count—Section Monitor Point
• HP-AR	Availability Ratio
• HP-BBE	High-Order Path Background Block Error
• HP-BBER	High-Order Path Background Block Error Ratio
• HP-EB	High-Order Path Errored Block
• HP-ES	High-Order Path Errored Second
• HP-ESA	High-Order Path Errored Seconds - A
• HP-ESB	High-Order Path Errored Seconds - B
• HP-ESR	High-Order Path Errored Second Ratio
• HP-FC	High-Order Path Failure Count
• HP-NPJC-PDET	High Order Path Negative Pointer Justification Count
• HP-NPJC-PGEN	High Order Path Pointer Justification Count Seconds
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PPJC-PDET	High Order Path Positive Pointer Justification Count
• HP-PPJC-PGEN	High Order Path, Positive Pointer Justification Count
• HP-SEPI	The number of SEP events in available time
• HP-SES	High-Order Path Severely Errored Seconds
• HP-SESR	High-Order Path Severely Errored Second Ratio
• HP-UAS	High-Order Path Unavailable Seconds
• ifInBroadcastPkts	Number of broadcast packets received since the last counter reset
• ifInDiscards	The number of inbound packets
• ifInErrorBytePktss	Receive Error Byte
• ifInErrors	The number of inbound packets (or transmission units) that contained errors
• ifInFramingErrorPkts	Receive Framing Error
• ifInJunkInterPkts	Receive Interpkt Junk
• ifInMulticastPkts	Number of multicast packets received since the last counter reset
• ifInOctets	Number of bytes transmitted since the last counter reset
• ifInUcastPkts	Number of unicast packets received since the last counter reset
• ifOutBroadcastPkts	Number of broadcast packets transmitted
• ifOutDiscards	The number of outbound packets
• ifOutErrors	The number of outbound packets (or transmission units) that could not be transmitted because of errors
• ifOutMulticastPkts	Number of multicast packets transmitted

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters (continued)

Parameter and Values	Description
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count
• LBCL-AVG	Average Laser Bias current in uA
• LBCL-MAX	Maximum Laser Bias current in uA
• LBCL-MIN	Minimum Laser Bias current in uA
• LBCN	Normalized Laser Bias Current for STM1-8
• LBCN-HWT	Laser Bias Current
• LBCN-LWT	Laser Bias Current
• LOSSL	Loss of Signal Seconds—Line
• LP-BBE	Low-Order Path Background Block Error
• LP-BBER	Low-Order Path Background Block Error Ratio
• LP-EB	Low-Order Path Errored Block
• LP-ES	Low-Order Path Errored Second
• LP-ESA	Low-Order Path Errored Seconds - A
• LP-ESB	Low-Order Path Errored Seconds - B
• LP-ESR	Low-Order Path Errored Second Ratio
• LP-FC	Low-Order Path Failure Count
• LP-NPJC-DET	Low Order Negative Pointer Justification Count, Detected
• LP-NPJC-GEN	Low Order Negative Pointer Justification Count, Generated
• LP-PPJC-DET	Low Order Positive Pointer Justification Count, Detected
• LP-PPJC-GEN	Low Order positive Pointer Justification Count, Generated
• LP-SEP	A sequence of between 3 to 9 consecutive SES
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored Seconds
• LP-UAS	Low-Order Path Unavailable Seconds
• MS-PSC	Protection switch count
• MS-PSD	Protection switch duration
• NIOS	8B10B—Non Idle Ordered Sets
• NPJC-PDET	PPJC-PDET:Negative Pointer Justification
• NPJC-PGEN	PPJC-PGEN:Negative Pointer Justification
• OPR-AVG	Average Receive Power in 1/10 uW
• OPR-MAX	Maximum Receive Power in 1/10 uW
• OPR-MIN	Minimum Receive Power in 1/10 uW
• OPRN	Normalized Optical Receive Power for STM1-8

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters (continued)

Parameter and Values	Description
• OPRN-MAX	Maximum value for OPRN
• OPRN-MIN	Minimum value for OPRN
• OPT-AVG	Average Transmit Power in 1/10 uW
• OPT-MAX	Maximum Transmit Power in 1/10 uW
• OPT-MIN	Minimum Transmit Power in 1/10uW
• OPTN	Normalized value for Optical Power Transmitted for STM1-8 card
• OPTN-MAX	Maximum value for OPTN
• OPTN-MIN	Minimum value for OPTN
• OPWR-AVG	Optical Power—Average Interval Value in 1/10th of dBm
• OPWR-MAX	Optical Power—Maximum Interval Value in 1/10th of dBm
• OPWR-MIN	Optical Power—Minimum Interval Value in 1/10th of dBm
• PPJC-PDET	PPJC-PDET:Positive Pointer Justification
• PPJC-PGEN	PPJC-PGEN:Positive Pointer Justification
• PSC	Protection Switching Count
• PSC-R	Protection Switching Count—Ring
• PSC-S	Protection Switching Count—Span
• PSC-W	Protection Switching Count—Working
• PSD	Protection Switching Duration
• PSD-R	Protection Switching Duration—Ring
• PSD-S	Protection Switching Duration—Span
• PSD-W	Protection Switching Duration—Working
• SASCPP	Severely Errored Framing/AIS Second—CP-Bit Path
• SASP	Severely Errored Framing/AIS Seconds Path
• SEFS	Severely Errored Framing Seconds
• SESCPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• SESR	Severely Errored Second—Ratio
• SESR-PM	OTN—Severely Errored Second Ratio—Path Monitor Point expressed as 1/10th of a percentage
• SESR-SM	OTN—Severely Errored Second Ratio—Section Monitor Point expressed as 1/10th of a percentage
• SESS	Severely Errored Second—Section
• SES-SM	OTN—Severely Errored Second—Section Monitor Point
• SESV	Severely Errored Second—VC Path
• UASCPP	Unavailable Second—CP-Bit Path

Table 12-11 ENT-RMONTH-<MOD2_RMON> Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> UASL 	Unavailable Second—Line
<ul style="list-style-type: none"> UASP 	Unavailable Second—Path
<ul style="list-style-type: none"> UAS-PM 	OTN—Unavailable Second—Path Monitor Point
<ul style="list-style-type: none"> UAS-SM 	OTN—Unavailable Second—Section Monitor Point
<ul style="list-style-type: none"> UASV 	Unavailable Second—VC Path
<ul style="list-style-type: none"> UNC-WORDS 	FEC—Uncorrectable Words
<ul style="list-style-type: none"> VPC 	Valid Packet Count
INTVL	The interval in seconds over which the data is sampled and compared with the rising and falling threshold. A valid value is any integer larger than or equal to 10 (seconds)
RISE	The rising threshold for the sampled statistic. A valid value is any integer
FALL	The falling threshold. A valid value is any integer smaller than the rising threshold
SAMPLE	The method of calculating the value to be compared to the thresholds Parameter type is SAMPLE_TYPE—describes how the data will be calculated during the sampling period
<ul style="list-style-type: none"> ABSOLUTE 	Comparing directly
<ul style="list-style-type: none"> DELTA 	Comparing with the current value of the selected variable subtracted by the last sample
STARTUP	Dictates whether an event will generate if the first valid sample is greater than or equal to the rising threshold, less than or equal to the falling threshold, or both Parameter type is STARTUP_TYPE—indicates whether an event will be generated when the first valid sample is crossing the rising or falling threshold
<ul style="list-style-type: none"> FALLING 	Generates the event when the sample is smaller than or equal to the falling threshold
<ul style="list-style-type: none"> RISING 	Generates the event when the sample is greater than or equal to the rising threshold
<ul style="list-style-type: none"> RISING-OR-FALLING 	Generates the event when the sample is crossing the rising threshold, or the falling threshold

12.14 ENT-ROLL-<MOD_PATH>

Enter Roll (VC3, VC44C, VC464C, VC48C, VC4, VC416C, VC42C, VC43C, VC11, VC12)

Usage Guidelines

This command enters information about rolling traffic from one end point to another without interrupting service. This command can be used to roll single paths.

**Note**

For a 1-way destination roll, the roll mode must be MANUAL.

Category

Bridge and Roll

Security

Provisioning

Input Format

ENT-ROLL-<MOD_PATH>:[<TID>]:<FROM>,<TO>:<CTAG>:::RFROM=<RFROM>,
RTO=<RTO>,RMODE=<RMODE>,[CMDMDE=<CMDMDE>];

Input Example

ENT-ROLL-VC3:CISCO:VC4-1-1-1,VC4-2-1-1:1:::RFROM=VC4-2-1-1,
RTO=VC4-3-1-1,RMODE=MAN,CMDMDE=FRCD;

Input Parameters

Table 12-12 ENT-ROLL-<PATH> Input Parameters

Parameter and Values	Description
FROM	Source access identifier from the “ 25.1.28 VC ” section on page 25-25 . It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the FROM-AID termination point. Otherwise, FROM is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
TO	Destination AID from the “ 25.1.28 VC ” section on page 25-25 . It is one of the termination points (legs) of the existing cross-connection. If the existing cross-connection is one-way, then this termination point (leg) should be the TO-AID termination point. Otherwise, the TO is non-significant. FROM and TO should be entered as they are entered in the ENT-CRS command. You can issue RTRV-CRS command, and use the response for FROM and TO parameters
RFROM	The termination point of the existing cross-connect that is to be rolled. AID from the “ 25.1.28 VC ” section on page 25-25
RTO	The termination point that will become a leg of the new cross-connection. AID from the “ 25.1.28 VC ” section on page 25-25
RMODE	Indicates the mode of rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> AUTO 	Automatic. When a valid signal is available, the roll under AUTO mode will automatically delete the previous end-point.

Table 12-12 ENT-ROLL-<PATH> Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> MAN 	Manual. Enter the corresponding delete roll/bulkroll command to delete the previous end-point.
CMDMDE	Command execution mode. Defaults to NORM Parameter type is CMDMDE—forces the system to execute a given command regardless of any standing conditions. Normal mode is the default behavior for all commands but you can specify FRCD to force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> FRCD 	Force the system to override a state in which the command would normally be denied
<ul style="list-style-type: none"> NORM 	Execute the command normally. Do not override any conditions that could make the command fail

12.15 ENT-ROUTE

Enter Route

Usage Guidelines

This command creates static routes.



Note

There is no DNS service available on the node. Only numeric IP addresses will be accepted.

Category

System

Security

Provisioning

Input Format

ENT-ROUTE:[<TID>]::<CTAG>:<DESTIP>,<IPMASK>,<NXTHOP>,<COST>;

Input Example

ENT-ROUTE:CISCO::123::10.64.72.57,255.255.255.0,10.64.10.12,200;

Input Parameters

Table 12-13 ENT-ROUTE Input Parameters

Parameter and Values	Description
DESTIP	Destination tip. String
IPMASK	IP mask. String

Table 12-13 ENT-ROUTE Input Parameters (continued)

Parameter and Values	Description
NXTHOP	Next hop. String
COST	Unsigned integer. Valid range is from 1 to 32,797

12.16 ENT-ROUTE-GRE

Enter Route Generic Routing Encapsulation

Usage Guidelines

This command creates a GRE tunnel. This can be used to transport IP over OSI or OSI over IP.

Category

System

Security

Provisioning

Input Format

ENT-ROUTE-GRE:[<TID>]:::<CTAG>:::IPADDR=<IPADDR>,IPMASK=<IPMASK>,
NSAP=<NSAP>,[COST=<COST>];

Input Example

ENT-ROUTE-GRE:CISCO::123:::IPADDR=10.64.72.57,IPMASK=255.255.255.0,
NSAP=39840F80FFFFFFF0000DDDDAA000010CFB4910200,COST=110;

Input Parameters

Table 12-14 ENT-ROUTE-GRE Input Parameters

Parameter and Values	Description
IPADDR	IP address of the tunnel endpoint. String
IPMASK	Subnet mask for the tunnel endpoint. String
NSAP	NSAP address for the tunnel endpoint. String
COST	Routing cost associated with the tunnel. Integer

12.17 ENT-TADRMAP

Enter TID Address Mapping

Usage Guidelines

This command instructs a gateway NE to create an entry in the TADRMAP table which maps the TIDs of the subtending NEs to their addresses. The OSs will address the subtending NEs using the TID in TL1 messages and a gateway NE will address these NEs by mapping the TID to an IP address or NSAP. The TADRMAP table, which resides in the gateway NE, correlates a TID and an address. The command requires that at least one IPADDR or NSAP be specified. The PORT and ENCODING parameters are only used with IP address mappings.

Category

System

Security

Provisioning

Input Format

```
ENT-TADRMAP:[<TID>]::<CTAG>:::[TIDNAME=<TIDNAME>],[IPADDR=<IPADDR>],
[PORT=<PORT>],[ENCODING=<ENCODING>],[NSAP=<NSAP>];
```

Input Example

```
ENT-TADRMAP:TID::CTAG:::TIDNAME=ENENODENAME,IPADDR=192.168.100.52,
PORT=3082,ENCODING=LV,NSAP=39840F80FFFFFFF0000DDDDAA01001800;
```

Input Parameters**Table 12-15 ENT-TADRMAP Input Parameters**

Parameter and Values	Description
TIDNAME	TID of the new TID/address mapping. String
IPADDR	IP address. IPADDR is a string. Optional. If the NSAP parameter is not used, the IPADDR parameter is required.
PORT	Port for the TID/IP address mapping. Defaults to 3082. Integer
ENCODING	TL1 encoding for the TID/IP address mapping. Defaults to LV Parameter type is ENCODING—
<ul style="list-style-type: none"> • LV 	Length encoding
<ul style="list-style-type: none"> • RAW-CISCO 	Cannot be specified. Used only for display with backward compatible ONS NEs
<ul style="list-style-type: none"> • RAW-STD 	Non-interactive encoding
NSAP	NSAP address. NSAP is a string. Optional. Note If the IPADDR parameter is not used, the NSAP parameter is required.

12.18 ENT-TRAPTABLE

Enter Trap Table

Usage Guidelines This command provisions SNMP trap destinations and their associated community, UDP port and SNMP version. The maximum number of trap entries allowed is ten.

Category System

Security Provisioning

Input Format ENT-TRAPTABLE:[<TID>]:<AID>:<CTAG>::COMMUNITY=<COMMUNITY>,
[TRAPPORT=<TRAPPORT>],[TRAPVER=<TRAPVER>];

Input Example ENT-TRAPTABLE::1.2.3.4:1::COMMUNITY="PRIVATE",TRAPPORT=162,TRAPVER=SNMPV1;

Input Parameters

Table 12-16 ENT-TRAPTABLE Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.13 IPADDR” section on page 25-18. IP address identifies the trap destination. Only numeric IP addresses are allowed
COMMUNITY	Community associated with the trap destination. Community name is a string with up to 32 characters
TRAPPORT	UDP port number associated with the trap destination. Defaults to 162. Integer
TRAPVER	SNMP version number. Defaults to SNMPv1 Parameter type is SNMP_VERSION—SNMP version
<ul style="list-style-type: none"> • SNMPV1 • SNMPV2 	<ul style="list-style-type: none"> SNMP Version 1 (Default) SNMP Version 2

12.19 ENT-TUNNEL-FIREWALL

Enter Tunnel Firewall

Usage Guidelines This command creates a firewall tunnel.

Category System

Security Provisioning

Input Format

```
ENT-TUNNEL-FIREWALL:[<TID>]::<CTAG>:::[SRCADDR=<SRCADDR>],
[SRCMASK=<SRCMASK>],[DESTADDR=<DESTADDR>],[DESTMASK=<DESTMASK>];
```

Input Example

```
ENT-TUNNEL-FIREWALL:TID::CTAG:::SRCADDR=192.168.100.52,
SRCMASK=255.255.255.0,DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;
```

Input Parameters**Table 12-17** ENT-TUNNEL-FIREWALL Input Parameters

Parameter and Values	Description
SRCADDR	Source IP address. String
SRCMASK	Source mask. String
DESTADDR	Destination IP address. String
DESTMASK	Destination mask. String

12.20 ENT-TUNNEL-PROXY

Enter Tunnel Proxy

Usage Guidelines

This command creates a proxy tunnel.

Category

System

Security

Provisioning

Input Format

```
ENT-TUNNEL-PROXY:[<TID>]::<CTAG>:::[SRCADDR=<SRCADDR>],
[SRCMASK=<SRCMASK>],[DESTADDR=<DESTADDR>],[DESTMASK=<DESTMASK>];
```

Input Example

```
ENT-TUNNEL-PROXY:TID::CTAG:::SRCADDR=192.168.100.52,SRCMASK=255.255.255.0,
DESTADDR=192.168.101.14,DESTMASK=255.255.255.0;
```

Input Parameters**Table 12-18** ENT-TUNNEL-PROXY Input Parameters

Parameter and Values	Description
SRCADDR	Source IP address. String
SRCMASK	Source mask. String

Table 12-18 ENT-TUNNEL-PROXY Input Parameters (continued)

Parameter and Values	Description
DESTADDR	Destination IP address. String
DESTMASK	Destination mask. String

12.21 ENT-USER-SECU

Enter User Security

Usage Guidelines

This command adds a user account. Only a Superuser can do this. Each user is configured as being at one of these four privilege levels:

1. Retrieve [RTRV]: Users with this security level can retrieve information from the node, but cannot modify anything. The default idle time for Retrieve is unlimited.
2. Maintenance [MAINT]: Users with this security level can retrieve information from the node and perform limited maintenance operations such as card resets, Manual/Force/Lockout on cross-connects or in protection groups, and MS-SPRing maintenance. The default idle time for Maintenance is 60 minutes.
3. Provisioning [PROV]: Users with this security level can perform all maintenance actions, and all provisioning actions except those restricted to superusers. The default idle time for Provisioning is 30 minutes.
4. Superuser [SUPER]: Users with this security level can perform all PROV user actions, plus creating/deleting user security profiles, setting basic system parameters such as time/date, node name, IP address, and doing database backup and restore. The default idle time for Superuser is 15 minutes.



Note

- Passwords are masked for the following security commands: ACT-USER, ED-PID, ENT-USER-SECU and ED-USER-SECU. Access to a TL1 session via any means will have the password masked. The CTC Request History and Message Log will also show the masked commands. When a password-masked command is reissued by double-clicking the command from CTC Request History, the password will still be masked in the CTC Request History and Message Log. The actual password that was previously issued will be sent to the NE. To use a former command as a template only, single-click the command in CTC Request History. The command will be placed in the Command Request text box, where you can edit the appropriate fields prior to reissuing it.
- The <UID> can be any combination of up to 10 alphanumeric characters.
- The <PID> is a string of up to 10 characters where at least 2 characters are non-alphabetic with at least one special character (+, %, or #).
- Although the CTC allows both <UID> and <PID> of up to 20 characters, the CTC-entered users (<UID> and <PID>) might not be valid TL1 users (for example, if issuing an ACT-USER command and using the CTC-entered <UID> that is greater than 10 characters long, TL1 will respond with DENY (Can't Login) error message).
- The TL1 password security is enforced as follows:

- The password <PID> cannot be the same as or contain the userid (UID), for example, if the userid is CISCO25 the password cannot be CISCO25#.
- The password <PID> must have one non-alphabetic and one special (+, %, or #) character.
- There is no password <PID> toggling; for example, if the current password is CISCO25#, the new password cannot be CISCO25#

Category

Security

Security

Superuser

Input Format

ENT-USER-SECU:[<TID>]:<UID>:<CTAG>::<PID>,,<UAP>[:];

Input Example

ENT-USER-SECU:PETALUMA:CISCO15:123::PSWD11#,,MAINT;

Input Parameters*Table 12-19 ENT-USER-SECU Input Parameters*

Parameter and Values	Description
UID	User identifier. The minimum UID size is 6 and the maximum size 10. String
PID	User's password or private identifier. String
UAP	User's access privilege Parameter type is PRIVILEGE—security level
• MAINT	Maintenance security level
• PROV	Provision security level
• RTRV	Retrieve security level
• SUPER	Superuser security level

12.22 ENT-VCG

Enter Virtual Concatenated Group

Usage Guidelines

This command creates a VCG object. VCG on ML-Series cards supports two members and supported subrates are: VC3, VC4, or VC44C. ML-Series VCG also supports SW-LCAS or NONE. VCG on the FC_MR-4 card supports eight members and the supported subrate is limited to VC4. The FC_MR-4 card VCG has no LCAS support (NONE).

Category VCAT

Security Provisioning

Input Format ENT-VCG:[<TID>]:<SRC>:<CTAG>:::TYPE=<TYPE>,TXCOUNT=<TXCOUNT>,[CCT=<CCT>],[LCAS=<LCAS>],[BUFFERS=<BUFFERS>],[NAME=<NAME>];

Input Example ENT-VCG:NODE1:FAC-1-1:1234:::TYPE=VC3C,TXCOUNT=8,CCT=2WAY,LCAS=LCAS,BUFFERS=DEFAULT,NAME="VCG1";

Input Parameters

Table 12-20 ENT-VCG Input Parameters

Parameter and Values	Description
SRC	Source access identifier from the “25.1.12 FACILITY” section on page 25-17. ML1000-2 and ML100T-12 cards use the VFAC AID. The FC_MR-4 card uses the FAC AID
TYPE	The type of the entity being provisioned. Null indicates not applicable. TYPE can be a common language equipment identifier (CLEI) code or another value. The type of member cross-connect. ML1000-2 and ML100T-12 cards support VC3, VC4 and VC44C. The FC_MR-4 card supports VC4 only Parameter type is MOD_PATH—VC path modifier
• VC3	VC3 Path
• VC44C	VC44C Path
• VC38C	VC38C Path
• VC464C	VC464C Path
• VC48C	VC48C Path
• VC4	VC4 Path
• VC416C	VC416C Path
• VC42C	VC42C Path
• VC43C	VC43C Path
• VC12	VC12 Path
TXCOUNT	Number of members in the Tx direction. For ML1000-2 and ML100T-12 cards the only valid value is 2. For the FC_MR-4 card the only valid value is 8. Integer
CCT	Type of connection; one-way or two-way. Cross-connect type for the VCG member cross-connects. Must be the same for all the member cross-connects of a VCG Parameter type is CCT—type of cross-connect to be created

Table 12-20 ENT-VCG Input Parameters (continued)

Parameter and Values	Description
<ul style="list-style-type: none"> 1WAY 	A unidirectional connection from a source tributary to a destination tributary
<ul style="list-style-type: none"> 1WAYDC 	SNCP multicast drop with (1-way) continue
<ul style="list-style-type: none"> 1WAYEN 	SNCP multicast end node (1-way continue)
<ul style="list-style-type: none"> 1WAYMON 	<p>A bidirectional connection between the two tributaries</p> <p>Note 1WAYMON is not supported with TL1. However, it is still supported from CTC. Using CTC you can create 1WAYMON cross-connects and can be retrieved via TL1.</p>
<ul style="list-style-type: none"> 1WAYPCA 	A unidirectional connection from a source tributary to a destination tributary on the protection path/fiber
<ul style="list-style-type: none"> 2WAY 	A bidirectional connection between the two tributaries
<ul style="list-style-type: none"> 2WAYDC 	A Bidirectional Drop and Continue connection applicable only to SNCP Traditional and Integrated Dual Ring InterConnections
<ul style="list-style-type: none"> 2WAYPCA 	A bidirectional connection between the two tributaries on the extra protection path/fiber
<ul style="list-style-type: none"> DIAG 	Diagnostics cross-connect. Supports BERT (MS-SPRing PCA diagnostics cross-connect)
LCAS	<p>Link capacity adjustment scheme</p> <p>Parameter type is LCAS—link capacity adjustment scheme mode for the VCG created</p>
<ul style="list-style-type: none"> LCAS 	LCAS is enabled
<ul style="list-style-type: none"> NONE 	No LCAS
<ul style="list-style-type: none"> SW-LCAS 	Supports the temporary removal of a VCG member during the member failure. Only supported by the ML1000-2 and ML100T-12 cards
BUFFERS	<p>Buffer type. The default value is DEFAULT. The FC_MR-4 and CE1000 cards support DEFAULT and EXPANDED buffers. Other data cards support DEFAULT buffers only</p> <p>Parameter type is BUFFER_TYPE—buffer type (used in VCAT)</p>
<ul style="list-style-type: none"> DEFAULT 	Default buffer value
<ul style="list-style-type: none"> EXPANDED 	Expanded buffer value
NAME	Name of the VCAT group. Defaults to null. Maximum length is 32 characters. String.