



ENT Commands



Note

The terms "Unidirectional Path Switched Ring" and "UPSR" may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as "Path Protected Mesh Network" and "PPMN," refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This chapter provides ENT (enter) commands for the Cisco ONS 15454, ONS 15327, ONS 15600 and ONS 15310-CL.

12.1 ENT-<MOD1PAYLOAD>

Enter (10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, D1VIDEO, DV6000, EC1, ESCON, ETRCLO, GIGE, HDTV, ISC1, OC12, OC192, OC3, OC48, T3)

Usage Guidelines

Cisco ONS 15454, ONS 15310-CL, ONS 15600

This command creates a specified port.



Note

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



Note

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

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

Category

Ports

Security

Provisioning

Related Commands		
	DLT-<MOD1PAYLOAD>	RLS-PROTNSW-<OCN_TYPE>
	DLT-FFP-<MOD2DWDMPAYLOAD>	RMV-<MOD2>
	DLT-FFP-<OCN_TYPE>	RST-<MOD2>
	ED-<GIGE_TYPE>	RTRV-<MOD1FCPAYLOAD>
	ED-<MOD1FCPAYLOAD>	RTRV-<MOD1FICONPAYLOAD>
	ED-<MOD1FICONPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
	ED-<MOD2DWDMPAYLOAD>	RTRV-<OCN_TYPE>
	ED-<OCN_TYPE>	RTRV-10GIGE
	ED-ALS	RTRV-ALMTH-<MOD2>
	ED-DS1	RTRV-ALS
	ED-EC1	RTRV-DS1
	ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-EC1
	ED-FFP-<OCN_TYPE>	RTRV-FAC
	ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
	ED-G1000	RTRV-FFP-<OCN_TYPE>
	ED-GFP	RTRV-FSTE RTRV-G1000
	ED-HDLC	RTRV-GFP
	ED-POS	RTRV-GIGE
	ED-T1	RTRV-HDLC
	ED-T3	RTRV-PM-<MOD2>
	ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
	ED-TRC-<OCN_TYPE>	RTRV-POS
	ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
	ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
	INIT-REG-<MOD2>	RTRV-T1
	OPR-ALS	RTRV-T3
	OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
	OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
	OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
	REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
	RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
	RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>

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 “25.1.14 FACILITY” section on page 25-28

12.2 ENT-<MOD_RING>

Enter Bidirectional Line Switched Ring

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600

This command creates either a two-fiber or four-fiber BLSR.

**Note**

The ONS 15327 and ONS 15600 do not support four-fiber BLSR.

**Note**

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

Four-fiber BLSR:

```
ENT-BLSR:TID:BLSR-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 BLSR:

```
ENT-BLSR:TID:BLSR-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 produce 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 BLSR with an out of range nodeid or ringid will return an IIAC (Invalid NodeId) or (Invalid RingId) error message.
- Sending this command to create a four-fiber BLSR on OC12 cards, or a two-fiber BLSR on OC3 cards will return an IIAC (Input, Invalid work/prot port) error message.
- Sending this command to create a BLSR on an NE that already has five BLSRs will return a SRQN (BLSR Creation Failed) error message because one NE is only allowed to have up to five BLSRs in this release.
- Sending this command to create a BLSR on a port with 1+1 will return a SRQN (BLSR 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, a SPLD (Facility is Busy) error message is returned.

- The SRQN (BLSR Creation Failed) error message is returned for an invalid creation query.
- Sending this command to provision the mode with an invalid BLSR mode will return an IIDT (Invalid BLSR Mode) error message.
- Sending this command to modify SRVRTV or SRVTM on the two-fiber BLSR will return an IDNV (Invalid Data for 2F-BLSR) error message.
- Sending this command to provision the nodeid with invalid data will return an IIAC (Invalid NodeId) error message.
- Sending this command to provision the ringid with invalid data will return an IIAC (Invalid RingId) error message.
- Sending this command with an invalid working AID will return an IIDT (Invalid BLSR Working Facility) error message.
- Sending this command with an invalid protection AID will return an IIDT (Invalid BLSR Protect Facility) error message.
- Changing the BLSR 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 BLSR creation.



Note The ALL AID is invalid for this command.

Category

BLSR

Security

Provisioning

Related Commands

DLT-<MOD_RING> EX-SW-<OCN_BLSR> RTRV-TRC-<OCN_BLSR>
 ED-<MOD_RING> RTRV-<MOD_RING>

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-BLSR:PETALUMA:BLSR-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 “25.1.3 AidUnionId1” section on page 25-12. Identifies the BLSR of the NE. ALL or BLSR-ALL AIDs are not allowed for editing BLSR. This command only supports a single BLSR AID
RINGID	The BLSR ID of the NE up to six characters. Valid characters are A-Z and 0-9. String
NODEID	The BLSR node ID of the NE. NODEID ranges from 0 to 31. Integer
MODE	Mode with which the command is to be implemented. Identifies the BLSR mode Parameter type is BLSR_MODE—BLSR mode
• 2F	Two-fiber BLSR
• 4F	Four-fiber BLSR
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 BLSR 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 BLSR 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 “25.1.14 FACILITY” section on page 25-28
WESTWORK	West working facility. AID from the “25.1.14 FACILITY” section on page 25-28
EASTPROT	East protecting facility. AID from the “25.1.14 FACILITY” section on page 25-28
WESTPROT	West protecting facility. AID from the “25.1.14 FACILITY” section on page 25-28

12.3 ENT-BULKROLL-<OCN_TYPE>

Enter Bulk Roll (OC12, OC192, OC3, OC48)

Usage Guidelines

Cisco ONS 15454, ONS 15600, ONS 15327

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

Category

Bridge and Roll

Security

Provisioning

Related Commands

DLT-BULKROLL-<MOD_PATH>	OPR-PROTNSW-<PATH>
DLT-CRS-<PATH>	RLS-PROTNSW-<PATH>
DLT-ROLL-<MOD_PATH>	RTRV-<PATH>
ED-<MOD_PATH>	RTRV-BULKROLL-<MOD_PATH>
ED-BULKROLL-<MOD_PATH>	RTRV-CRS-<PATH>
ED-CRS-<PATH>	RTRV-NE-PATH
ED-NE-PATH	RTRV-PROTNSW-<PATH>
ED-ROLL-<MOD_PATH>	RTRV-PTHTRC-<PATH>
ENT-CRS-<PATH>	RTRV-ROLL-<MOD_PATH>
ENT-ROLL-<MOD_PATH>	

Input Format

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

Input Example

```
ENT-BULKROLL-OC48:CISCO:FAC-5-1:123:::RTOSTART=STS-6-1-1,
RFROMSTART=STS-5-1-1,RFROMEND=STS-5-1-4,RMODE=AUTO,CMDMDE=FRCD;
```

Input Parameters

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

Parameter and Values	Description
FROM	One of the end points. Access identifier from the “25.1.14 FACILITY” section on page 25-28 for line level rolling and bulk rolling
RTOSTART	The starting time slot in the destination roll port. Access identifier from the “25.1.14 FACILITY” section on page 25-28 (STS or VT) Note For bulk rolling only
RFROMSTART	The starting time slot in the source roll port. Access identifier from the “25.1.14 FACILITY” section on page 25-28 (STS or VT). Defaults to STS-<FROMSLOT>-<FROMPORT>-1, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID Note For bulk rolling only
RFROMEND	The ending time slot in the source roll port. Access identifier from the “25.1.14 FACILITY” section on page 25-28 (STS and VT). Defaults to STS-<FROMSLOT>-<FROMPORT>-N, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID and N is the value of OCn. (for example, OC48, n=48) Note For bulk rolling only
RMODE	Indicates the mode of the rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> • AUTO • MAN 	Automatic Manual
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 where the command would normally be denied
<ul style="list-style-type: none"> • FRCD • NORM 	Force the system to override a state where the command would normally be denied Execute the command normally. Do not override any conditions that could make the command fail

12.4 ENT-CRS-<PATH>

Enter STS Cross-Connection (STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, VT2)

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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

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

When a path protection 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-STS1::F1&F2,T1:123;) is the preferred path.



Note

- The default cross-connection type is two-way
- If a path is already in a connection, it cannot be in another connection even if the other is a one-way and the new one will be one-way the other direction.
- This command does not support creating multiple STS cross-connections.
- The path protection cross STS connection can be created by using “&” in the AID fields of this command.
 - The following command is used to create a one-way selector or two-way selector and bridge with:


```
from points: F1, F2
to points: T1
ENT-CRS-{STS_PATH}:{<TID>}:F1&F2,T1:<CTAG>:::<CCT>;
```
 - The following command is used to create a one-way bridge or two-way selector and bridge with:


```
from point: F1
to points: T1, T2
ENT-CRS-{STS_PATH}:{<TID>}:F1,T1&T2:<CTAG>:::<CCT>;
```
 - The following command is used to create a one-way subtending path protection connection or two-way subtending path protection connection with:


```
from point: F1, F2
to points: T1, T2
ENT-CRS-{STS_PATH}:{<TID>}:F1&F2,T1&T2:<CTAG>:::<CCT>;
```
 - The following command is used to create a two-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-{STS_PATH}:{<TID>}:F1&F2,S1&S2:<CTAG>:::2WAY;
```


- The following command is used to create a Path Protection IDRI Cross-Connection:

```
ENT-CRS-{STS_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 Path Protection IDRI cross-connections.

- The following command is used to create a Path Protection DRI Cross-Connection:

```
ENT-CRS-{STS_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 path protection 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 two-fiber protection path or on a four-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 support the BLSR-DRI feature. DRITYPE is applied only if the CCT is drop-and-continue (1WAYDC or 2WAYDC), and defaults to path protection for the DRI. DRINODE must be specified only if at least one end of the connection is on the BLSR, and defaults to NA.
- The DS3XM-12 card allows portless STS1/VT1.5 cross-connection provisioning on the DS3Xm-12 PORTLESS ports (port number >= 12).
- 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.
- STS18c and STS36c cross-connects are supported only on the FC_MR-4 card and optical cards.
- LO CCAT is not applicable for ML-100T-8 and CE-100T-8 cards.
- LO VCAT is not applicable for the ML-100T-8 card on ONS 15310.

Category

Cross Connections

Security

Provisioning

Related Commands	DLT-CRS-<PATH>	ENT-ROLL-<MOD_PATH>	RTRV-CRS-<PATH>
	DLT-ROLL-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-NE-PATH
	ED-<MOD_PATH>	RLS-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
	ED-CRS-<PATH>	RTRV-<PATH>	RTRV-PTHTRC-<PATH>
	ED-NE-PATH	RTRV-CRS	RTRV-ROLL-<MOD_PATH>

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

Input Example ENT-CRS-ST33C:BODEGA:STS-5-1-1&STS-6-1-1,
STS-12-1-1&STS-13-1-1:116::1WAYDC:DRITYPE=BLSR,DRINODE=PRI,
CKTID=CKTID,CMDMDE=FRCD:IS,AINS;

Input Parameters

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

Parameter and Values	Description
SRC	Source access identifier from the “25.1.1 ALL” section on page 25-1. Listable
DST	Destination AID from the “25.1.1 ALL” section on page 25-1
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
<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 	Path Protection multicast drop with (1-way) continue
<ul style="list-style-type: none"> 1WAYEN 	Path Protection multicast end node (1-way continue)
<ul style="list-style-type: none"> 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 through TL1.
<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 Path Protection 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 (BLSR PCA diagnostics cross-connect)

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

Parameter and Values	Description
DRITYPE	DRI connection type. Applied only if the CCT is a drop-and-continue connection type (1WAYDC or 2WAYDC). Defaults to path protection Parameter type is DRITYPE—DRI type
<ul style="list-style-type: none"> • BLSR 	BLSR DRI type
<ul style="list-style-type: none"> • Path Protection 	Path Protection DRI type
<ul style="list-style-type: none"> • Path Protection-BLSR 	Path Protection-BLSR type
DRINODE	Dual ring interconnect node Parameter type is DRINODE—DRI node
<ul style="list-style-type: none"> • INT 	Intermediate DRI node
<ul style="list-style-type: none"> • NA 	The node is not a DRI node
<ul style="list-style-type: none"> • PRI 	Primary DRI node
<ul style="list-style-type: none"> • SEC 	Secondary DRI node
CKTID	Cross-connect ID. Defaults to blank or none. String
CMDMDE	Command Mode 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 where the command would normally be denied
<ul style="list-style-type: none"> • FRCD 	Force the system to override a state where 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
PST	Primary state. Defaults to IS Parameter type is PST—indicates the current overall service condition of an entity
<ul style="list-style-type: none"> • IS 	In service
<ul style="list-style-type: none"> • OOS 	Out of service
SST	Secondary state. Defaults to AINS Parameter type is SST—provides additional information pertaining to PST and PSTQ
<ul style="list-style-type: none"> • AINS 	Automatic in service
<ul style="list-style-type: none"> • DSBLD 	Disabled
<ul style="list-style-type: none"> • LPBK 	Loopback
<ul style="list-style-type: none"> • MEA 	Mismatch of equipment and attributes
<ul style="list-style-type: none"> • MT 	Maintenance mode
<ul style="list-style-type: none"> • OOG 	Out of group
<ul style="list-style-type: none"> • SWDL 	Software downloading

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

Parameter and Values	Description
• UAS	Unassigned
• UEQ	Unequipped

12.5 ENT-EQPT

Enter Equipment

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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 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). DS1, DS3, DS3XM, DS3N, DS3E, EC1 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>.

The following is an example for a 1:1 protection group:

```
ENT-EQPT:[<TID>]:SLOT-1:<CTAG>::DS1;
ENT-EQPT:[<TID>]:SLOT-2:<CTAG>::DS1:PROTID=SLOT-1,PRTYPE=1-1,RVTM=5.0,
RVRTV=Y;
```

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 DSXN (DS1N or DS3N) card must be provisioned in the protect slot. 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.

The following is an example of provisioning a 1:N protection group with the ENT-EQPT command:

```
ENT-EQPT:[<TID>]:SLOT-3:<CTAG>::DS1N;
ENT-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>::DS1:PROTID=SLOT-3,PRTYPE=1-N;
```

The following is an example of provisioning a 1:N protection group with the ED-EQPT command:

```
ENT-EQPT:[<TID>]:SLOT-1&SLOT-2:<CTAG>::DS1;
```

```
ENT-EQPT:[<TID>]:SLOT-3:<CTAG>::DS1N;
```

```
ED-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>:::PROTID=SLOT-1,PRTYPE=1-N;
```

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 CMPLD and PRTL responses on creating protection group query, the protection group has been created for the successful AID(s) query.

The following is an example for 1:N protection. The RVRTV parameter is not valid for 1:N protection.

```
ENT-EQPT:[<TID>]:SLOT-2:<CTAG>:::PROTID=SLOT-3,PRTYPE=1-N,RVTV=5.0;
```

Both ENT-EQPT and ED-EQPT commands can provision all working AIDs (1-5) together for 1:N by using listed AIDs.

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.

An example to provision a 1:1 protection group:

```
ENT-EQPT::SLOT-1:12::DS3; Provisions the protect card
```

```
ENT-EQPT::SLOT-2:12::DS3:PROTID=SLOT-1,RVTV=Y,RVTV=8.0; Provisions a card and adds it to the protection group.
```

An example to provision a 1:N protection group:

```
ENT-EQPT::SLOT-3:12::DS3N; Provisions the protect card
```

```
ENT-EQPT::SLOT-1:12::DS3:PROTID=SLOT-3,RVTV=7.5,PRTYPE=1-N; Provisions a card and adds it to protection group.
```



Note

- Sending this command to provision a DS3NE card on Slot {1,2,4,5,6,12,13,14,16,or 17}, the DS3E card type is presented.
- Sending this command to provision a DS3N card on Slot {1,2,4,5,6,12,13,14,16,17}, the DS3 card type is presented.
- Sending this command to provision a DS1N card on Slot-{1,2,4,5,6,12,13,14,16,17}, the DS1 card type is presented.
- For the MRC-12 card, there are hardware limitations for which SFP ports can be used.
- The OC192-XFP card must be installed in Slots 5-6 or 12-13 and requires an XC10G or XC-VXC-10G cross-connect 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.
- The CARDMODE provisioning is allowed on the DS3XM-12 and ML-Series cards. Provisioning for the DS3XM-12 is based on the cross-connect type and DS3XM-12 location, for example:
 - The DS3XM-12 card in the lower speed I/O slot with the XCVT/XC10G card only allows the DS3XM-12-STS12 CARDMODE. Other cases allow the CARDMODE to be DS3XM-12-STS48.
 - The NE defaults to the highest available backplane rate/mode for the DS3XM-12 card if you do not specify the CARDMODE in the ENT-EQPT command.
 - The ML100T-8 card will be provisioned to default type MAPPER mode.
- The 1:N ($1 \leq N \leq 7$) protection group is allowed on the DS3XM-12 card in an ONS 15454 across two sides (A and B). All the cards in the 1:N protection group must be on the same backplane rate (or CARDMODE).
 - For 1:N, the protect card must be allocated on either Slot 3 or Slot 15. For 1:1, the protect card must be allocated on the odd slots.
 - The working DS3XM-12 cards on the opposite side of the shelf as the protection card (either Slot 3 or Slot 15) in a 1:N group can only have portless connections while the other working cards of the 1:N group on the same side of the shelf as the protection card do not have this limitation. For example:
There is a DS3XM-12 card 1:N group on Slot 2, Slot 3, Slot 4, Slot 12 and Slot 16 where Slot 3 is the protect card. Slot 2, Slot 4, Slot 12 and Slot 16 are the working cards in the 1:N (1:5). According to the above limitation rule, the Slot 12 and Slot 16 cards have to have the portless provisioning only, while the Slot 2 and Slot 4 cards can be either portless or ported provisioning.
- 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 in service state (IS). 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 in service state.
- RETIME provisioning is allowed only on the DS1-E1-56 card (ONS 15454).

Category Equipment

Security Provisioning

Related Commands

ALW-SWDX-EQPT	INH-SWTOPROTN-EQPT	RTRV-COND-EQPT
ALW-SWTOPROTN-EQPT	INH-SWTOWKG-EQPT	RTRV-EQPT
ALW-SWTOWKG-EQPT	REPT ALM EQPT	SET-ALMTH-EQPT
DLT-EQPT	REPT EVT EQPT	SW-DX-EQPT
ED-EQPT	RTRV-ALM-EQPT	SW-TOPROTN-EQPT
INH-SWDX-EQPT	RTRV-ALMTH-EQPT	SW-TOWKG-EQPT

Input Format

ENT-EQPT:[<TID>]:<AID>:<CTAG>::<AIDTYPE>:[PROTID=<PROTID>],
 [PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[CMDMDE=<CMDMDE>],
 [CARDMODE=<CARDMODE>],[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],
 [PWL=<PWL>],[RETIME=<RETIME>][:];

Input Example

ENT-EQPT:PETALUMA:SLOT-12:118::DS3XM-12:PROTID=SLOT-13,PRTYPE=1-1,RVRTV=Y,
 RVTM=8.5,CMDMDE=FRCD,CARDMODE=DS3XM12-ST512,PEERID=SLOT-3,
 REGENNAME="REGEN GROUP",PWL=1530.33,RETIME=Y;

Input Parameters**Table 12-5 ENT-EQPT Input Parameters**

Parameter and Values	Description
AID	Access identifier from the “25.1.13 EQPT” section on page 25-27
AIDTYPE	The type of facility, link or other addressable entity targeted by the message Parameter type is EQUIPMENT_TYPE—equipment type
• 32-DMX-O	Unidirectional optical demultiplexer with 32 channels
• 32-MUX-O	Unidirectional optical multiplexer with 32 channels
• 32-WSS	Optical wavelength selective switch with 32 channels
• AD-1B	Optical Add/Drop Multiplexed (OADM) 1 Band Filter
• AD-1C	Optical Add/Drop Multiplexed (OADM) 1 Channel Filter
• AD-2C	Optical Add/Drop Multiplexed (OADM) 2 Channels Filter
• AD-4B	Optical Add/Drop Multiplexed (OADM) 4 Bands Filter
• AD-4C	Optical Add/Drop Multiplexed (OADM) 4 Channels Filter
• AICI	AICI card
• ASAP-4	Any Service Any Port (ASAP) Carrier card with 4 PIM slots
• CE-100T-8	8-Port 100T card on ONS 15454 and ONS 15310-CL
• CXC	Cross-Connect Card (ONS 15600 only)
• DS1	DS1 card
• DS1-E1-56	DS1-E1-56 card
• DSII	DSII card
• DS1N	DS1N card

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

Parameter and Values	Description
• DS3	DS3 card
• DS3E	DS3E card
• DS3-EC1-48	DS3-EC1-48 card
• DS3I	DS3I card
• DS3IN	DS3IN card
• DS3N	DS3N card
• DS3NE	DS3NE card
• DS3XM	DS3XM card
• DS3XM-12	DS3XM-12 card
• E1000T	E1000T card
• E100T	E100T card
• EC1	EC1 card
• FC_MR-4	FC_MR-4 card
• FILLER-CARD	Blank Filler card (ONS 15600)
• G1000-2	2-port G1000 card (ONS 15327)
• G1K-4	4-port G1000 card (ONS 15454)
• MD-4	Optical Multiplexer/Demultiplexer with 4 Channels
• MIC	ONS 15327 MIC card
• MIC-EXT	ONS 15327 MIC-EXT card
• ML100FX	ML-100X-8 card
• ML100T-8	15454-LI+ Mapper card and ONS 15310-CL ML-100T-8 card
• ML1000-2	ML-Series 2-Port GigE card
• ML100T-12	ML-Series 12-Port FSTE card
• MRC-12	12-port multirate optical card (ONS 15454)
• MS-ISC-100T	(ONS 15454) Multishelf Internal Switch Card
• MXP-2.5G-10E	10G (4 * 2.5G) Muxponder Card with Enhanced FEC
• MXP-2.5G-10G	10G (4 * 2.5G) Muxponder Card
• MXP-MR-2.5G	Multirate 2.5G Muxponder Unprotected
• MXPP-MR-2.5G	Multirate 2.5G Muxponder Protected
• OC3	OC-3 card
• OC3-8	8-Port OC-3 card
• OC12	OC-12 card
• OC12-4	4-port OC-12 card
• OC48	OC-48 card
• OC48_16	16-port OC-48 card
• OC192	OC-192 card

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

Parameter and Values	Description
• OC192-4	4-port OC-192 card
• OC192-XFP	1-port OC-192 XFP
• OPT-BST	Optical Booster Amplifier
• OPT-PRE	Optical Preamplifier
• OSC-CSM	Optical Service Channel (OSC) with Combiner/Separator Module (SCM)
• OSCM	Optical Service Channel (OSC) Module
• PIM-4	4-port Pluggable Interface Module (ONS 15600)
• PPM-1	Pluggable Port Module with 1 SFP port (ONS 15600 ASAP, ONS 15310 ONS 15454 MXP/MXPP, TXP/TXPP, MRC-12 and OC192-XFP)
• SSXC	Cross Connect card (ONS 15600)
• TCC	TCC card
• TXP-MR-10E	10G Multirate Transponder Card with Enhanced FEC
• TXP-MR-10G	10G Multirate Transponder Card
• TXP-MR-2.5G	Multirate 2.5G Unprotected
• TXPP-MR-2.5G	Multirate 2.5G Protected
• XC10G	XC10G card
• XCVT	XCVT card
• XCVXC-10G	XC-VXC-10G card
• XCVXL-10G	XC-VXL-10G card
• XCVXL-2.5G	XC-VXL-2.5G card
• XTC	ONS 15327 XTC card
PROTID	Protecting card slot identifier of the protection group from the “25.1.20 PRSLOT” section on page 25-33 Note Not applicable to TXP_MR_10G and MXP_2.5G_10G cards.
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 for 1 protection
• 1-N	1 for N protection

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

Parameter and Values	Description
RVRTV	<p>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.</p> <p>Note Not applicable to TXP_MR_10G and MXP_2.5G_10G cards</p> <p>Parameter type is ON_OFF—disable or enable an attribute</p>
• N	Disable an attribute
• Y	Enable an attribute
RVTM	<p>Revertive time</p> <p>Parameter type is REVERTIVE_TIME—revertive time</p>
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
CMDMDE	<p>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 (IS). Default is NORM</p> <p>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 where the command would normally be denied</p>
• 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
CARDMODE	<p>Card mode</p> <p>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 OOS mode.</p> <p>TL1 will not set a default CARD_MODE value at the management interface level if no PWL value is given</p> <p>Parameter type is CARDMODE—card mode. Card mode is applicable to cards that have multiple capabilities, for example, the ML card can operate in two distinct modes: Linear Mapper Mode and L2/L3 Mode</p>
• DS3XM12-ST512	The DS3XM-12 card in the STS12 back plane rate mode
• DS3XM12-ST548	The DS3XM-12 card in the STS48 back plane rate mode
• DWDM-LINE	Line terminating mode
• DWDM-SEC	Section terminating mode

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

Parameter and Values	Description
• DWDM-TRANS-AIS	Transparent mode AIS
• DWDM-TRANS-SQUELCH	Transparent mode SQUELCH
• 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
• MXPMR25G-FCGE	Fibre channel or GIGE mode for the MXP-MR-2.5G card
PEERID	The regeneration peer slot from the “25.1.13 EQPT” section on page 25-27
REGENNAME	Name of a regeneration group. String
PWL	Provisioned wavelength. TL1 will set a default PWL value at the management interface level if now PWL value is given Parameter type is OPTICAL_WLEN—optical wavelength
• 1530.33	Wavelength 1
• 1531.12	Wavelength 2
• 1531.90	Wavelength 3
• 1532.68	Wavelength 4
• 1534.25	Wavelength 5
• 1535.04	Wavelength 6
• 1535.82	Wavelength 7
• 1536.61	Wavelength 8
• 1538.19	Wavelength 9
• 1538.98	Wavelength 10
• 1539.77	Wavelength 11
• 1540.56	Wavelength 12
• 1542.14	Wavelength 13
• 1542.94	Wavelength 14
• 1543.73	Wavelength 15
• 1544.53	Wavelength 16
• 1546.12	Wavelength 17
• 1546.92	Wavelength 18
• 1547.72	Wavelength 19
• 1548.51	Wavelength 20
• 1550.12	Wavelength 21
• 1550.92	Wavelength 22
• 1551.72	Wavelength 23
• 1552.52	Wavelength 24

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

Parameter and Values	Description
• 1554.13	Wavelength 25
• 1554.94	Wavelength 26
• 1555.75	Wavelength 27
• 1556.55	Wavelength 28
• 1558.17	Wavelength 29
• 1558.98	Wavelength 30
• 1559.79	Wavelength 31
• 1560.61	Wavelength 32
• USE-TWL1	Use Tunable Wavelength 1
RETIME	Indicates if retiming is needed. Applicable only to the DS1-E1-56 card (ONS 15454) Parameter type is YES_NO—whether the user’s password is about to expire, the user is logged into the NE, or the user is locked out of the NE
• NO	No
• YES	Yes

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

Cisco ONS 15454

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

Related Commands

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FFP-<OCN_TYPE>	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-FSTE	RTRV-FFP-<OCN_TYPE>
ED-G1000	RTRV-FSTE
ED-GFP	RTRV-G1000
ED-HDLC	RTRV-GFP
ED-POS	RTRV-GIGE
ED-T1	RTRV-HDLC
ED-T3	RTRV-PM-<MOD2>
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PMSCHED-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-POS
ENT-<MOD1PAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

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 “25.1.14 FACILITY” section on page 25-28
DST	Destination access identifier from the “25.1.14 FACILITY” section on page 25-28
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
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
<ul style="list-style-type: none"> BI UNI 	Bidirectional protection switching Unidirectional protection switching

12.7 ENT-FFP-<OCN_TYPE>

Enter Facility Protection Group (OC3, OC12, OC48, OC192)

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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.
- Optimized 1+1 and related attributes are only applicable to the ONS 15454.
- The following parameters are only supported in Release 6.0: 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 OC-48 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 OC192-XFP card:
 - 1+1 PG can be created between two OC192-XFP cards in trunk slots {5-6,12-13}.
 - 1+1 PG can be created between a OC192-XFP card and an OC192LR/STM64LH card in trunk slots {5-6,12-13}.
- The PROTOTYPE parameter is only applicable to optical DWDM cards.

Category

Protection

Security

Provisioning

Related Commands

DLT-<MOD1PAYLOAD>	RMV-<MOD2>
DLT-FFP-<MOD2DWDMPAYLOAD>	RST-<MOD2>
DLT-FFP-<OCN_TYPE>	RTRV-<MOD1FCPAYLOAD>
ED-<GIGE_TYPE>	RTRV-<MOD1FICONPAYLOAD>
ED-<MOD1FCPAYLOAD>	RTRV-<MOD2DWDMPAYLOAD>
ED-<MOD1FICONPAYLOAD>	RTRV-<OCN_TYPE>
ED-<MOD2DWDMPAYLOAD>	RTRV-10GIGE
ED-<OCN_TYPE>	RTRV-ALMTH-<MOD2>
ED-ALS	RTRV-ALS
ED-DS1	RTRV-DS1
ED-EC1	RTRV-EC1
ED-FFP-<MOD2DWDMPAYLOAD>	RTRV-FAC
ED-FSTE	RTRV-FFP-<MOD2DWDMPAYLOAD>
ED-G1000	RTRV-FFP-<OCN_TYPE>
ED-GFP	RTRV-FSTE
ED-HDLC	RTRV-G1000
ED-POS	RTRV-GFP
ED-T1	RTRV-GIGE
ED-T3	RTRV-HDLC
ED-TRC-<MOD2DWDMPAYLOAD>	RTRV-PM-<MOD2>
ED-TRC-<OCN_TYPE>	RTRV-PMSCHED-<MOD2>
ENT-<MOD1PAYLOAD>	RTRV-POS
ENT-FFP-<MOD2DWDMPAYLOAD>	RTRV-PROTNSW-<MOD2DWDMPAYLOAD>
ENT-FFP-<OCN_TYPE>	RTRV-PROTNSW-<OCN_TYPE>
INIT-REG-<MOD2>	RTRV-T1
OPR-ALS	RTRV-T3
OPR-LPBK-<MOD2>	RTRV-TH-<MOD2>
OPR-PROTNSW-<MOD2DWDMPAYLOAD>	RTRV-TRC-<MOD2DWDMPAYLOAD>
OPR-PROTNSW-<OCN_TYPE>	RTRV-TRC-<OCN_TYPE>
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RLS-LPBK-<MOD2>	SET-ALMTH-<MOD2>
RLS-PROTNSW-<MOD2DWDMPAYLOAD>	SET-TH-<MOD2>
RLS-PROTNSW-<OCN_TYPE>	

Input Format

```
ENT-FFP-<OCN_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-OC3: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-<OCN_TYPE> Input Parameters

Parameter and Values	Description
WORK	Working port from the “25.1.14 FACILITY” section on page 25-28
PROTECT	Protection port from the “25.1.14 FACILITY” section on page 25-28
PROTOTYPE	Protection group type. Y-CABLE is the only applicable value (for optical DWDM cards only)
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
• N	Disable an attribute
• Y	Enable an attribute
RVTM	Revertive time. Defaults to 5.0 minutes Parameter type is REVERTIVE_TIME—revertive time
• 0.5 to 12.0	Revertive time is 0.5 to 12.0 minutes
PSDIRN	Protection switch operation. Identifies the switch mode Parameter type is UNI_BI—unidirectional and bidirectional switch operations
• BI	Bidirectional protection switching
• UNI	Unidirectional protection switching
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
• Optimized	Optimized 1+1 Note Only applicable to the ONS 15454. The port must be in SDH mode.
• Standard	Standard 1+1

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

Parameter and Values	Description
VRGRDTM	Verification guard timer. Only applicable to optimized 1+1 Parameter type is VERIFICATION_GUARD_TIMER—optimized 1+1 verification guard timer
• 0.5	500 ms
• 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
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 second
• 3.0	3 seconds
• 4.0	4 seconds
• 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
• 0.0	0 seconds
• 0.05	50 ms
• 0.1	100 ms
• 0.5	500 ms
• 1.0	1 second
• 2.0	2 second
• 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-<MOD2O>

Enter Optical Link (OCH, OMS, OTS)

Usage Guidelines

ONS 15454

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

Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNKTERM	RTRV-NE-WDMANS
ED-DWDM	ENT-OSC	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
ED-OTS	RTRV-DWDM	RTRV-WLEN

Input Format

ENT-LNK-<MOD2O>:[<TID>]:<FROM>,<TO>:<CTAG>:::[<PST>[,<SST>]];

Input Example

ENT-LNK-OMS:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114:::OOS,AINS;

Input Parameters

Table 12-8 ENT-LNK-<MOD20> Input Parameters

Parameter and Values	Description
FROM	Identifier at one end of the optical link from the “25.1.4 BAND” section on page 25-13
TO	Identifier at the other end of the optical link from the “25.1.4 BAND” section on page 25-13
PST	Primary state of the entity Parameter type is PST—primary state. Indicates the current overall service condition of an entity
• IS	In Service
• OOS	Out of Service
SST	Secondary state of the entity Parameter type is SST—secondary state. Provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped

12.9 ENT-LNKTERM

Creates a Provisionable Patchcord Termination

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

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/GCC) 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 returned when the provisioning rules are not satisfied. The following rules must be satisfied while creating a provisionable patchcord termination on a physical interface:

1. For a SONET port:
 - a. It must have SDCC termination provisioned. If it is the protect facility in a 1+1 protection group the corresponding working facility must have SDCC termination provisioned.
 - b. If it is part of a BLSR the SDCC must be provisioned on all of the working ports of the BLSR.
2. For a TXP/MXP trunk port either G.709 must be enabled or the payload type must be non-SONET/SDH
3. For a TXP/MXP client port a card must be operating in the transparent termination mode.
4. MSTP OCH port
5. The number of PP terminations is limited to 146.

**Note**

- If the OCn 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

Related Commands	DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
	DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
	DLT-OSC	ED-WLEN	RTRV-LNKTERM
	DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
	ED-DWDM	ENT-OSC	RTRV-OCH
	ED-FFP-OCH	ENT-WLEN	RTRV-OMS
	ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC
	ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS
	ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH
	ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH
	ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS
	ED-OTS	RTRV-DWDM	RTRV-WLEN

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 “25.1.17 LNKTERM” section on page 25-32. Indicates a link (provisionable patchcord) termination on the local node.
PORT	The local port corresponding to this provisionable patchcord termination from the “25.1.7 CHANNEL” section on page 25-14
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-OSC

Enter Optical Service Channel

Usage Guidelines

ONS 15454

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



Note

RINGID defaults to the AID number.

Category

DWDM

Security

Provisioning

Related Commands

DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>
DLT-OSC	ED-WLEN	RTRV-LNKTERM
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS
ED-DWDM	ENT-LNKTERM	RTRV-OCH
ED-FFP-OCH	ENT-WLEN	RTRV-OMS
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC RTRV-OTS
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-PROTNSW-OCH
ED-OCH	OPR-WDMANS	RTRV-TRC-OCH
ED-OMS	RLS-LASER-OTS	RTRV-WDMANS
ED-OSC	RLS-PROTNSW-OCH	RTRV-WLEN
ED-OTS	RTRV-DWDM	

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 25-33. 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 OC3 facility from the “ 25.1.14 FACILITY ” section on page 25-28. EAST_OC3 is the AID facility. Only one OC3 for the east direction is supported in this release. This parameter can be omitted
WEST	The west OC3 facility from the “ 25.1.14 FACILITY ” section on page 25-28. EAST_OC3 is the AID facility. Only one OC3 for the west direction is supported in this release. This parameter can be omitted

12.11 ENT-RMONTH-<MOD2_RMON>

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

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15310-CL

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

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.

Category

Performance

Security

Provisioning

Related Commands

ALW-PMREPT-ALL	RTRV-PMSCHED-ALL
DLT-RMONTH-<MOD2_RMON>	RTRV-RMONTH-<MOD2_RMON>
INH-PMREPT-ALL	RTRV-TH-<MOD2>
INIT-REG-<MOD2>	RTRV-TH-ALL
REPT PM <MOD2>	SCHED-PMREPT-<MOD2>
RTRV-PM-<MOD2>	SET-PMMODE-<STS_PATH>
RTRV-PMMODE-<STS_PATH>	SET-TH-<MOD2>
RTRV-PMSCHED-<MOD2>	

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 “25.1.14 FACILITY” section on page 25-28. 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
• AISSP	Alarm Indication Signal Seconds—Path
• ALL	All possible values
• BBE-PM	OTN—Background Block Errors—Path Monitor Point
• BBE-SM	OTN—Background Block Errors—Section Monitor Point
• BBER-PM	OTN—Background Block Error Ratio—Path Monitor Point expressed as 1/10th of a percentage.
• BBER-SM	OTN—Background Block Error Ratio—Section Monitor Point expressed as 1/10th of a percentage.
• BIEC	FEC—Bit Errors Corrected
• CGV	8B10B—Code Group Violations
• CSSP	Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)
• CVCPP	Coding Violations—CP-Bit Path
• CVL	Coding Violations—Line
• CVP	Coding Violations—Path
• CVS	Coding Violations—Section
• CVV	Coding Violations—Section

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

Parameter and Values	Description
• DCG	8B10B—Data Code Groups
• ESAP	Errored Second Type A-Path (DS3XM-12 DS1 PM count)
• ESBP	Errored Second Type B-Path (DS3XM-12 DS1 PM count)
• ESCPP	Errored Seconds—CP—Bit Path
• ESL	Errored Seconds—Line
• ESNPFE	Errored Second—Network Path (DS3XM-12 DS1 PM count)
• ESP	Errored Seconds—Path
• ES-PM	OTN—Errored Seconds—Path Monitor Point
• ES-SM	OTN—Errored Seconds—Section 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
• ESV	Errored Seconds—VT Path
• etherStatsBroadcastPkts	The total number of good packets received that were directed to a multicast address
• etherStatsCollisions	Number of transmit packets that are collisions
• etherStatsCRCAlignErrors	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
• 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

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

Parameter and Values	Description
• 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, Negative Pointer Justification Count
• HP-OI	Outage Intensity
• HP-PJCDIFF	High Order Path Pointer Justification Count Difference
• HP-PJCS-PDET	High Order Path Pointer Justification Count
• HP-PJCS-PGEN	High Order Path Pointer Justification Count Seconds
• 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
• ifOutPayloadCrcErrors	Received payload CRC errors
• ifOutUcastPkts	Number of unicast packets transmitted
• IOS	8B10B- Idle Ordered Sets
• IPC	Invalid Packet Count

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

Parameter and Values	Description
• 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 OC3-8
• 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	Low-Order Path Severely Errored Period
• LP-SEPI	Low-Order Path Severely Errored Period Intensity
• LP-SES	Low-Order Path Severely Errored
• 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 OC3-8
• 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

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

Parameter and Values	Description
• OPT-MIN	Minimum Transmit Power in 1/10 uW
• OPTN	Normalized value for Optical Power Transmitted for the OC3-8 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
• SEFSP	Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)
• SESCOPP	Severely Errored Second—CP-Bit Path
• SESL	Severely Errored Second—Line
• SESNPFE	Severely Errored Second—Network Path (DS3XM-12 DS1 PM count)
• SESP	Severely Errored Second—Path
• SES-PM	OTN—Severely Errored Second—Path
• 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—VT Path
• UASCPP	Unavailable Second—CP-Bit Path
• UASL	Unavailable Second—Line

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

Parameter and Values	Description
<ul style="list-style-type: none"> • UASNPFE 	Unavailable Second—Network Path (DS3XM-12 DS1 PM count)
<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—VT 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

12.12 ENT-ROLL-<MOD_PATH>

Enter Roll (STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, VC12, VC3, VT1, VT2)

Usage Guidelines

Cisco ONS 15454, ONS 15627, ONS 15600

This command enters information about rolling of traffic from one end point to another without interrupting service. This command can be used to roll single paths (STS or VT).



Note

STS18C and STS36C are not supported in this release.

Category

Bridge and Roll

Security

Provisioning

Related Commands

DLT-CRS-<PATH>	ENT-CRS-<PATH>	RTRV-NE-PATH
ED-<MOD_PATH>	OPR-PROTNSW-<PATH>	RTRV-PROTNSW-<PATH>
ED-CRS-<PATH>	RLS-PROTNSW-<PATH>	RTRV-PTHTRC-<PATH>
ED-NE-PATH	RTRV-<PATH>	RTRV-ROLL-<MOD_PATH>
DLT-ROLL-<MOD_PATH>	RTRV-CRS-<PATH>	

Input Format

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

Input Example

ENT-ROLL-STS1:CISCO:STS-1-1-1,STS-2-1-1:1:::RFROM=STS-2-1-1,RTO=STS-3-1-1,
RMODE=MAN,FORCE=Y;

Input Parameters

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

Parameter and Values	Description
FROM	Source access identifier from the “25.1.22 STS” section on page 25-33. 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 “25.1.22 STS” section on page 25-33. 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 “25.1.22 STS” section on page 25-33
RTO	The termination point that will become a leg of the new cross-connection. AID from the “25.1.22 STS” section on page 25-33
RMODE	Indicates the mode of rolling operation Parameter type is RMODE—roll mode
<ul style="list-style-type: none"> • AUTO • MAN 	Automatic Manual
FORCE	Forces a valid signal on the path. FORCE can only go from Y to N Parameter type is ON_OFF—disable/enable an attribute
<ul style="list-style-type: none"> • N • Y 	Disable an attribute Enable an attribute

12.13 ENT-ROUTE

Enter Route

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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

Related Commands

DLT-ROUTE	ENT-TADRMAP	RTRV-TADRMAP
DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
DLT-TUNNEL-PROXY	RTRV-ROUTE	

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

12.14 ENT-ROUTE-GRE

Enter Route Generic Routing Encapsulation

Usage Guidelines Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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

Category System

Security Provisioning

Related Commands	DLT-ROUTE	ENT-ROUTE	RTRV-ROUTE-GRE
	DLT-ROUTE-GRE	ENT-TADRMAP	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

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=39840F80FFFFFF0000DDDDAA000010CFB4910200,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

12.15 ENT-TADRMAP

Enter Target Identifier Address Mapping

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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

Related Commands

DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
DLT-TADRMAP	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-FIREWALL
DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
DLT-TUNNEL-PROXY	RTRV-ROUTE	

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. String
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—encoding
LV	Length encoding
RAW-CISCO	Cannot be specified. Used only for display with backward compatible ONS NEs
RAW-STD	Non-interactive encoding

12.16 ENT-TRAPTABLE

Enter Trap Table

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

This command provisions an SNMP trap destination and its associated community; UDP port and SNMP version. The maximum number of trap entries allowed is ten.

Category

System

Security

Provisioning

Related Commands	ALW-MSG-ALL	INH-MSG-ALL	RTRV-NE-IPMAP
	ALW-MSG-DBCHG	INH-MSG-DBCHG	RTRV-NE-PATH
	ALW-MSG-SECU	INH-MSG-SECU	RTRV-NE-SYNCN
	DLT-TRAPTABLE	INIT-SYS	RTRV-NE-WDMANS
	ED-DAT	RTRV-HDR	RTRV-NETYPE
	ED-NE-GEN	RTRV-INV	RTRV-TOD
	ED-NE-PATH	RTRV-NE-APC	RTRV-TRAPTABLE
	ED-NE-SYNCN	RTRV-NE-GEN	SET-TOD
	ED-TRAPTABLE		

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	IP address identifying the trap destination. Only a numeric IP address is allowed. Access identifier from the “ 25.1.15 IPADDR ” section on page 25-31
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
SNMPV1	SNMP Version 1 (Default)
SNMPV2	SNMP Version 2

12.17 ENT-TUNNEL-FIREWALL

Enter Tunnel Firewall

Usage Guidelines Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL
This command creates a firewall tunnel.

Category System

Security Provisioning

Related Commands	DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-PROXY	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

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

12.18 ENT-TUNNEL-PROXY

Enter Tunnel Proxy

Usage Guidelines Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL
This command creates a proxy tunnel.

Category System

Security Provisioning

Related Commands	DLT-ROUTE	ENT-ROUTE	RTRV-TADRMAP
	DLT-TADRMAP	ENT-TADRMAP	RTRV-TUNNEL-FIREWALL
	DLT-TUNNEL-FIREWALL	ENT-TUNNEL-FIREWALL	RTRV-TUNNEL-PROXY
	DLT-TUNNEL-PROXY	RTRV-ROUTE	

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
DESTADDR	Destination IP address. String
DESTMASK	Destination mask. String

12.19 ENT-USER-SECU

Enter User Security

Usage Guidelines

Cisco ONS 15454, ONS 15327, ONS 15600, ONS 15310-CL

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 BLSR 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, and IP address, doing database backup & 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 by 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

Related Commands

ACT-USER	DLT-USER-SECU	REPT EVT SECU
ALW-MSG-SECU	ED-CMD-SECU	REPT EVT SESSION
ALW-USER-SECU	ED-PID	RTRV-CMD-SECU
CANC	ED-USER-SECU	RTRV-DFLT-SECU
CANC-USER	INH-MSG-SECU	RTRV-USER-SECU
CANC-USER-SECU	INH-USER-SECU	SET-ATTR-SECUDFLT
CLR-COND-SECU	REPT ALM SECU	

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

12.20 ENT-VCG

Enter Virtual Concatenated Group

Usage Guidelines

Cisco ONS 15454

This command creates a VCG object. VCG on ML-Series cards supports two members and supported subrates are: STS1, STS3C, or STS12C. 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 STS3C. The FC_MR-4 card VCG has no LCAS support (NONE). VCG on the ML card supports up to three members at a subrate of STS1 and 64 members at a subrate of VT1.

Category

VCAT

Security

Provisioning

Related Commands

DLT-VCG ED-VCG RTRV-VCG

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=STS3C,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 “ 25.1.14 FACILITY ” section on page 25-28. 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 STS1, STS3c and STS12c. The FC_MR-4 card supports STS3c only Parameter type is MOD_PATH—STS/VT path modifier
• STS1	STS1 path
• STS12C	STS12C path
• STS18C	STS18C path
• STS192	STS192C path
• STS24C	STS24C path
• STS36C	STS36C path
• STS3C	STS3C path
• STS48C	STS48C path
• STS6C	STS6C path
• STS9C	STS9C path
• VT1	VT1 path
• VT2	VT2 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
• 1WAY	A unidirectional connection from a source tributary to a destination tributary
• 1WAYDC	Path Protection multicast drop with (1-way) continue
• 1WAYEN	Path Protection 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 through 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

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

Parameter and Values	Description
<ul style="list-style-type: none"> 2WAYDC 	A Bidirectional Drop and Continue connection applicable only to Path Protection 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 (BLSR PCA diagnostics cross-connect)
LCAS	<p>Link capacity adjustment scheme</p> <p>Note If SW-LCAS is selected, then the far-end VCG must also be configured as SW-LCAS.</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 card supports 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.

12.21 ENT-WLEN

Enter Wavelength

Usage Guidelines ONS 15454

This command allocates a wavelength.



Note This command does not support allocating multiple wavelengths.



Note CKTID is a string of ASCII characters. The maximum length of CKTID can be 48. If CKTID is EMPTY or NULL this field will not appear.

Category DWDM

Security Provisioning

Related Commands			
DLT-LNK-<MOD2O>	ED-TRC-OCH	RTRV-FFP-OCH	
DLT-LNKTERM	ED-WDMANS	RTRV-LNK-<MOD2O>	
DLT-OSC	ED-WLEN	RTRV-LNKTERM	
DLT-WLEN	ENT-LNK-<MOD2O>	RTRV-NE-WDMANS	
ED-DWDM	ENT-LNKTERM	RTRV-OCH	
ED-FFP-OCH	ENT-OSC	RTRV-OMS	
ED-LNK-<MOD2O>	OPR-LASER-OTS	RTRV-OSC	
ED-LNKTERM	OPR-PROTNSW-OCH	RTRV-OTS	
ED-OCH	OPR-WDMANS	RTRV-PROTNSW-OCH	
ED-OMS	RLS-LASER-OTS	RTRV-TRC-OCH	
ED-OSC	RLS-PROTNSW-OCH	RTRV-WDMANS	
ED-OTS	RTRV-DWDM	RTRV-WLEN	

Input Format ENT-WLEN:[<TID>]:<AID>:<CTAG>:[:<WCT>]:[SIZE=<SIZE>],
[CKTID=<CKTID>]:[:<PST>[:<SST>]];

Input Example ENT-WLEN:PENNGROVE:WLEN-W-ADD-1530.33:114::1WAY:SIZE=MULTI-RATE,
CKTID=CKTID:OOS,MT;

Input Parameters

Table 12-21 ENT-WLEN Input Parameters

Parameter and Values	Description
AID	Access identifier from the “25.1.30 WLEN” section on page 25-43
WCT	Wavelength connection type Parameter type is WCT—wavelength connection types The default wavelength connection type is 1WAY
• 1WAY	A unidirectional wavelength connection for one specified ring direction
• 2WAY	A bidirectional wavelength connection for both ring directions
SIZE	Size of the switching network. Defaults to NOT-SPEC Parameter type is CIRCUIT_SIZE—DWDM circuit size used on a wavelength
• 10G-FEC	Circuit size is 10 Gbps with FEC
• 10G-NO-FEC	Circuit size is 10 Gbps without FEC
• 2G5-FEC	Circuit size is 2.5 Gbps with FEC
• 2G5-NO-FEC	Circuit size is 2.5 Gbps without FEC
• MULTI-RATE	Circuit size supports multirate
• NOT-SPEC	Circuit size is not equipment specific
CKTID	String of ASCII characters. The maximum length of CKTID can be 48. If CKTID is EMPTY or NULL this field will not appear. Defaults to “ ” (empty string)
PST	Primary state Parameter type is PST—indicates the current overall service condition of an entity
• IS	In service
• OOS	Out of service
SST	Secondary state Parameter type is SST—provides additional information pertaining to PST and PSTQ
• AINS	Automatic in service
• DSBLD	Disabled
• LPBK	Loopback
• MEA	Mismatch of equipment and attributes
• MT	Maintenance mode
• OOG	Out of group
• SWDL	Software downloading
• UAS	Unassigned
• UEQ	Unequipped