CHAPTER 11

# ED 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 edit (ED) commands for the Cisco ONS 15454, Cisco ONS 15310-CL, Cisco ONS 15310-MA, and Cisco ONS 15600.

## 11.1 ED-<GIGE_TYPE>

(Cisco ONS 15454 and ONS 15600) The Edit 10GIGE or GIGE (ED-<GIGE_TYPE>) command edits Ethernet facility attributes. See Table 27-1 on page 27-1 for supported modifiers by platform.

### Usage Guidelines

The default values for all optional parameters are network element (NE) default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

The user can change the service state of a facility to OOS-MA OR DSBLD, only if all the following conditions are met

- The facility is not sourcing a synchronization clock
- The facility's DCC is disabled.
- The facility is not part of a protection group
- The facility is  not supporting cross-connects

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility  from service with no consideration for orderly interruption. Do not use in scripts or automated batch operations.

**Note** To completely disable the CMDMDE=FRCD option, provision the <to be defined parameter> in the NE defaults to FALSE. This will prevent the FRCD option from being honored by the NE. The NE default parameter can be provisioned using the CTC only.

**Note** The following parameters apply only to ED-GIGE; ADMINSTATE, LINKSTATE, MTU, FLOWCTRL, AUTONEG, HIWMRK, LOWMRK, DUPLEX, SPEED, and SOAK.

**Note** The MACADDR parameter is applicable for ED-10GIGE only.

## Category

Ports

## Security

Provisioning

## Input Format

ED-<GIGE_TYPE>:[<TID>]:<AID>:<CTAG>:::[ADMINSTATE=<ADMINSTATE>],
[LINKSTATE=<LINKSTATE>],[MTU=<MTU>],[FLOWCTRL=<FLOWCTRL>],
[AUTONEG=<AUTONEG>],[HIWMRK=<HIWMRK>],[LOWMRK=<LOWMRK>],
[OPTICS=<OPTICS>],[DUPLEX=<DUPLEX>],[SPEED=<SPEED>],[NAME=<NAME>],
[CMDMDE=<CMDMDE>],[SUPPRESS=<SUPPRESS>],[MACADDR=<MACADDR>],[FREQ=<FREQ>],[LOSSB=<LOSSB>],
[SOAK=<SOAK>]:[<PST>[,<SST>]];

## Input Example

ED-GIGE:PETALUMA:FAC-1-1:123:::ADMINSTATE=DOWN,LINKSTATE=DOWN,MTU=1548,
FLOWCTRL=NONE,AUTONEG=Y,HIWMRK=485,LOWMRK=25,OPTICS=1000_BASE_LX,
DUPLEX=AUTO,SPEED=AUTO,NAME="GIGE PORT",CMDMDE=FRCD,
SUPPRESS=Y,MACADDR=00-0E-AA-BB-CC-FF,FREQ=1550,LOSSB=SX,SOAK=32:IS,AINS;

## Input Parameters

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <ADMINSTATE> | Administration type. The parameter type is UP_DOWN, which indicates an up or down value. |
| • DOWN | Down |
| • UP | Up |
| <LINKSTATE> | Link state. The parameter type is UP_DOWN, which indicates an up or down value. |
| • DOWN | Down |
| • UP | Up |

| | |
|---|---|
| <MTU> | Maximum transport unit. The parameter type is MTU_TYPE which indicates the maximum transport unit used by an Ethernet card. Defaults to 9600. |
| • 10004 | 10004. Indicates jumbo size. |
| • 1500 | 1500 |
| • 1548 | 1548 |
| • 9600 | 9600. Indicates the jumbo size. |
| <FLOWCTRL> | Flow control. The parameter is FLOW which indicates the type of flow control that has been negotiated for an Ethernet port. Defaults to NONE. |
| • ASYMMETRIC | Asymmetric flow control |
| • ASYMMETRIC_LOCAL | Asymmetric local flow control |
| • NONE | No flow control |
| • PASSTHRU | Passthrough flow control |
| • SYMMETRIC | Symmetric flow control |
| <AUTONEG> | Autonegotiation. The parameter is ON_OFF which disables or enables an attribute. Defaults to Y. |
| • N | Disable an attribute |
| • Y | Enable an attribute |
| <HIWMRK> | High water mark. Integer. Defaults to 485. |
| <LOWMRK> | Low water mark. Integer. Defaults to 25. |
| <OPTICS> | The parameter is OPTICS which indicates the type of Gigabyte Ethernet optics being used. |
| • 1000_BASE_CX | 1000 Base CX |
| • 1000_BASE_LX | 1000 Base LX |
| • 1000_BASE_SX | 1000 Base SX |
| • 1000_BASE_ZX | 1000 Base ZX |
| • 100_BASE_FX | 100 Base FX |
| • 100_BASE_LX | 100 Base LX |
| • CWDM_1470 | Coarse wavelength division multiplexing (CWDM) 1470 |
| • CWDM_1490 | CWDM 1490 |
| • CWDM_1510 | CWDM 1510 |
| • CWDM_1530 | CWDM 1530 |
| • CWDM_1550 | CWDM 1550 |
| • CWDM_1570 | CWDM 1570 |
| • CWDM_1590 | CWDM 1590 |
| • CWDM_1610 | CWDM 1610 |
| • ITU_100G_1530_33 | ITU-100G 1530.33 |
| • ITU_100G_1531_12 | ITU-100G 1531.12 |
| • ITU_100G_1531_90 | ITU-100G 1531.90 |
| • ITU_100G_1532_68 | ITU-100G 1532.68 |
| • ITU_100G_1534_25 | ITU-100G 1534.25 |
| • ITU_100G_1535_04 | ITU-100G 1535.04 |

| | |
|---|---|
| • ITU_100G_1535_82 | ITU-100G 1535.82 |
| • ITU_100G_1536_61 | ITU-100G 1536.61 |
| • ITU_100G_1538_19 | ITU-100G 1538.19 |
| • ITU_100G_1538_98 | ITU-100G 1538.98 |
| • ITU_100G_1539_77 | ITU-100G 1539.77 |
| • ITU_100G_1540_56 | ITU-100G 1540.56 |
| • ITU_100G_1542_14 | ITU-100G 1542.14 |
| • ITU_100G_1542_94 | ITU-100G 1542.94 |
| • ITU_100G_1543_73 | ITU-100G 1543.73 |
| • ITU_100G_1544_53 | ITU-100G 1544.53 |
| • ITU_100G_1546_12 | ITU-100G 1546.12 |
| • ITU_100G_1546_92 | ITU-100G 1546.92 |
| • ITU_100G_1547_72 | ITU-100G 1547.72 |
| • ITU_100G_1548_51 | ITU-100G 1548.51 |
| • ITU_100G_1550_12 | ITU-100G 1550.12 |
| • ITU_100G_1550_92 | ITU-100G 1550.92 |
| • ITU_100G_1551_72 | ITU-100G 1551.72 |
| • ITU_100G_1552_52 | ITU-100G 1552.52 |
| • ITU_100G_1554_13 | ITU-100G 1554.13 |
| • ITU_100G_1554_94 | ITU-100G 1554.94 |
| • ITU_100G_1555_75 | ITU-100G 1555.75 |
| • ITU_100G_1556_55 | ITU-100G 156.55 |
| • ITU_100G_1558_17 | ITU-100G 1558.17 |
| • ITU_100G_1558_98 | ITU-100G 1558.98 |
| • ITU_100G_1559_79 | ITU-100G 1559.79 |
| • ITU_100G_1560_61 | ITU-100G 1560.61 |
| • UNKNOWN | Unknown |
| • UNPLUGGED | Unplugged |
| <DUPLEX> | The parameter is ETHER_DUPLEX which indicates duplex mode. Defaults to AUTO. |
| • AUTO | Auto mode |
| • FULL | Full mode |
| • HALF | Half mode |
| <SPEED> | The parameter type is ETHER_SPEED which indicates Ethernet speed. Defaults to AUTO. |
| • 100_MBPS | 100 Megabits per seconds |
| • 10_GBPS | 10 Gigabits per second |
| • 10_MBPS | 10 Megabits per second |
| • 1_GBPS | 1 Gigabit per second |
| • AUTO | Automatic |
| <NAME> | Port name. NAME is a string. Defaults to NULL. Maximum length is 32 characters. |

| | |
|---|---|
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <SUPPRESS> | Pre-service alarm flag for data ports. This parameter is supported on ML-series cards only. |
| • Y | Enable suppress. |
| • N | Disable suppress. Default is Off. |
| <MACADDR> | MACADDR is a string. Defaults to NULL. Maximum length is 18 characters. |
| <FREQ> | The parameter type is OPTICAL_WLEN which indicates the optical wavelength. |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |

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|---|---|
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |

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|---|---|
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |

| | |
|---|---|
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |

| | |
|---|---|
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <LOSSB> | The parameter type is REACH which indicates the reach values. |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |

| | |
|---|---|
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <SOAK> | IS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. Defaults to 32. |
| <PST> | The primary state. The parameter type is PST, which indicates the current overall service condition of an entity. Defaults to OOS. |
| • IS | In service |
| • OOS | Out of service |
| SST | The secondary state. The parameter type is SST, which provides additional information pertaining to PST and primary state qualifier (PSTQ). Defaults to DSBLD. |
| • 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 |

# 11.2 ED-<MOD1FCPAYLOAD>

(Cisco ONS 15454) The Edit 1GISC3, 2GISC3, D1VIDEO, DV6000, ESCON, ETRCLO, HDTV or PASSTHRU (ED-<MODFCPAYLOAD>) command edits the attributes related to the Fibre Channel (FC) facility. The state IS,AINS is not supported on the FC port. See Table 27-1 on page 27-1 for supported modifiers by platform.

## Usage Guidelines

The user can change the service state of a facility to locked-enabled or disabled, only if all the following conditions are met

- The facility is not sourcing a synchronization clock
- The facility's DCC is disabled.
- The facility is not part of a protection group
- The facility is not supporting cross-connects

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility from service with no consideration for orderly interruption. Do not use in scripts or automated batch operations.

**Note** To completely disable the CMDMDE=FRCD option, provision the <to be defined parameter> in the NE defaults to FALSE. This will prevent the FRCD option from being honored by the NE. The NE default parameter can be provisioned using the CTC only.

**Note**

- The port parameters VIZ, LINKRCVRY, DISTEXTN, AUTODETECTION, LINKCREDITS, and MFS can be edited only if the port state is OOS,MT or OOS,DSBLD.
- The port parameters AUTODETECTION, LINKCREDITS, and MFS can be edited only if distance extension is enabled (set to B2B).
- 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, for example, Provisioning Rules Failed.

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-<MOD1FCPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[LINKRCVRY=<LINKRCVRY>],
[DISTEXTN=<DISTEXTN>],[AUTODETECTION=<AUTODETECTION>],
[LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[NAME=<NAME>],
[CMDMDE=<CMDMDE>],[SOAK=<SOAK>],[FREQ=<FREQ>],
[LOSSB=<LOSSB>]:[<PST>[,[<SST>]];

**Input Example**

ED-1GFC:PETALUMA:FAC-6-1:1:::LINKRCVRY=Y,DISTEXTN=NONE,AUTODETECTION=Y,
LINKCREDITS=10,MFS=2148,NAME="FC PORT",CMDMDE=NORM,SOAK=32,
FREQ=1550,LOSSB=LR-1:OOS,MT;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <LINKRCVRY> | Link recovery. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <DISTEXTN> | Distance extension. It can be set to Buffer-to-Buffer (B2B) Credit Management state or None.<br>**Note** B2B and link recovery are mutually exclusive. You cannot turn on both B2B and link recovery at the same time.<br>The parameter type is DISTANCE_EXTENSION (distance extension). |
| • B2B | Buffer to buffer flow control |
| • NONE | No distance extension |
| <AUTODETECTION> | Autodetection. Turns autodetection on or off. The parameter type is ON_OFF, which disables or enables an attribute. |

| | |
|---|---|
| • N | Disable an attribute |
| • Y | Enable an attribute |
| <LINKCREDITS> | Number of link credits. If autodetection is set to off, the value of the link credits will be used to configure the hardware. LINKCREDITS is an integer. |
| <MFS> | Maximum frame size. MFS is an integer. |
| <NAME> | String. User-assigned port name. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <FREQ> | The parameter type is OPTICAL_WLEN, which is the optical wavelength. |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |

| | |
|---|---|
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |

| | |
|---|---|
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |

| | |
|---|---|
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |

| | |
|---|---|
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <LOSSB> | The parameter type is REACH, which is the reach value. |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |

| | |
|---|---|
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <PST> | Primary state. the parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.3 ED-<MOD1FICONPAYLOAD>

(Cisco ONS 15454) The Edit 1GFICON, 2GFICON, 4GFICON, or ESCON (ED-<MOD1FICONPAYLOAD>) command edits the attributes related with the fiber connectivity (FICON) payload facility. The state IS,AINS is not supported on the FICON port.

**Usage Guidelines**

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-<MOD1FICONPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[LINKRCVRY=<LINKRCVRY>], [DISTEXTN=<DISTEXTN>],[AUTODETECTION=<AUTODETECTION>], [LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[NAME=<NAME>], [CMDMDE=<CMDMDE>],[SOAK=<SOAK>],[FREQ=<FREQ>], [LOSSB=<LOSSB>]:[<PST>[,<SST>]];

**Input Example**

ED-1GFICON:PETALUMA:FAC-6-1:1:::LINKRCVRY=Y,DISTEXTN=NONE, AUTODETECTION=Y, LINKCREDITS=10,MFS=2148,NAME="FCPORT",CMDMDE=CMDMDE, SOAK=32,FREQ=1550,LOSSB=LR-1:OOS,MT;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <LINKRCVRY> | Link recovery. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute |
| • Y | Enable an attribute |
| <DISTEXTN> | Distance extension. It can be set to B2B Credit Management state or None.<br><br>**Note** B2B and link recovery are mutually exclusive. You cannot turn on both B2B and link recovery at the same time.<br><br>The parameter type is DISTANCE_EXTENSION (distance extension). |
| • B2B | Buffer-to-buffer flow control |
| • NONE | No distance extension |
| <AUTODETECTION> | Autodetection. Turns autodetection on or off. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute |
| • Y | Enable an attribute |
| <LINKCREDITS> | Number of link credits. If autodetection is set to off the value of the link credits will be used to configure the hardware. LINKCREDITS is an integer. |
| <MFS> | Maximum frame size. MFS is an integer. |
| <NAME> | String. User-assigned port name. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |

| | |
|---|---|
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <FREQ> | The parameter type is OPTICAL_WLEN (optical wavelength). |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |

| | |
|---|---|
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |

| | |
|---|---|
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |

| | |
|---|---|
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |

| | |
|---|---|
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <LOSSB> | The parameter type is REACH, which is the reach value. |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.4 ED-<MOD2DWDMPAYLOAD>

(Cisco ONS 15454) The Edit 10GFC, 10GIGE, 1GFC, 1GFICON, 1GISC3, 2GFC, 2GFICON, 2GISC3, 4GFC, 4GFICON, D1VIDEO, DV6000, ESCON, ETRCLO, GIGE, HDTV, ISC3, or PASSTHRU (ED-<MOD2DWDMPAYLOAD>) command edits the operating parameters for a dense wavelength division multiplexing (DWDM) client facility.

**Usage Guidelines**

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-<MOD2DWDMPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[NAME=<NAME>],[CMDMDE=<CMDMDE>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:[<PST>[,<SST>]];

**Input Example**

ED-HDTV::FAC-1-1:1:::NAME="PORTNAME",CMDMDE=CMDMDE,FREQ=1550,LOSSB=LR-1:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <LINKCREDITS> | Number of link credits. If autodetection is set to off the value of the link credits will be used to configure the hardware. LINKCREDITS is an integer. |
| <NAME> | String. User-assigned port name. |

| | |
|---|---|
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <FREQ> | The parameter type is OPTICAL_WLEN (optical wavelength). |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |

| | |
|---|---|
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |

| | |
|---|---|
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |

| | |
|---|---|
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |

| | |
|---|---|
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <LOSSB> | the parameter type is REACH, which is the reach value. |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |

| | |
|---|---|
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.5 ED-<MOD_PATH>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VC12, VC3, VT1, or VT2 (ED-<MOD_PATH>) command edits the attributes associated with synchronous transport signal (STS) and Virtual Tributary (VT) paths.

## Usage Guidelines

The SFBER, SDBER, RVRTV, and RVTM parameters only apply to path protection configurations at the STS path level and ONS 15310_CL and ONS 15454 VT paths.

SFBER and SDBER also apply to the VT path level on the ONS 15310-CL and ONS 15454 when the ONS 15454 has an XC-VXC-10G card.

SWPDIP does not apply to the VT path level (VT1 and VT2).

The path trace message is a 64 character string including the terminating CR (carriage return) and LF (line feed) that is transported in the J1 byte of the SONET STS Path overhead. Both the EXPTRC and TRC string can be provisioned by user with up to 62 character string.

The EXPTRC indicates that the contents of the expected incoming path trace are provisioned by the user. The TRC indicates the contents of the outgoing path trace message. The INCTRC indicates the contents of the incoming path trace message.

Path trace has three modes: OFF, MANUAL, and AUTO. The path trace mode defaults to OFF. The MANUAL mode performs the comparison of the received string with the user-entered expected string. The AUTO mode performs the comparison of the present received string with an expected string that is set to a previously received string. If there is a mismatch, a TIM-P alarm is raised. When the path trace is in OFF mode, there is no path trace processing, and all of the alarm and state conditions are reset.

The TACC parameter edits an existing single STS or VT and changes it to a test access point. When an editing command on TACC is executed, it assigns the STS or VT for the first two-way connection and STS+1 as the second two-way connection. For single facility access digroup (FAD) test access, only a single STS/VT is used for the test access point (TAP) creation. For more information on TACC, refer to the *Cisco ONS SONET TL1 Reference Guide*.

J1 is implemented on the DS1/DS1N, DS3E/DS3NE, DS3XM, EC1, OC3, OC12-4, OC48AS, and OC192 cards.

DS3/DS3N, OC12, OC48, E100, and E1000 cards do not support path trace.

DS1/DS1N, DS3E/DS3NE, and DS3XM support both TRC and EXPTRC in the ED-STS-PATH command.

EC1, OC3, OC48AS, and OC192 only support EXPTRC in the ED-STS-PATH command.

**Note** Each TL1 command must be less than or equal to 255 characters. Any command larger than 255 characters must be split into multiple commands. For example, if you use the ED-<MOD_PATH> command to edit the J1 EXPTRC/TRC message, path protection attributes, and TACC attributes and the command exceeds 255 characters, the command will not be processed. You must use multiple ED-<MOD_PATH> commands instead.

The following actions will produce error messages:

- Sending this command to edit SFBER, SDBER, RVRTV, or RVTM for the non-path protection STS path.
- Sending this command to edit the EXPTRC string with the AUTO path trace mode (TRCMODE=AUTO).
- Sending this command to edit TRC on any card other than DS3(N)E, DS1(N), and DS3XM cards, will return the “TRC-not allowed for monitor paths. Incorrect card type” error message.
- Sending this command to edit both TACC and any other attribute(s) will return the “Parameters Not compatible” error message.
- Sending this command to edit TACC on an AID with cross-connections will return the “STS in Use” error message.

**Note**

- TACC creation will be denied on the protect ports/cards for 1:1, 1:N, and 1+1 protection.
- The VFAC AID is only valid on slots containing an ML-Series card. TACC is not supported for the ML-Series cards.
- After bidirectional line switched ring (BLSR) switching, provisioning of the J1 trace string or trace mode is not allowed on the protection path.
- TACC creation is allowed on protection channel access (PCA) for two-fiber and four-fiber BLSR.
- TACC is not supported on G1000, MXP_2.5G_10G, TXP_MR_10G, ML1000-2, and ML100T-12 cards.
- HOLDOFFTIMER is not specific to a path. It is applicable to the path protection selector. If HOLDOFFTIMER is changed on one path associated with the selector, the HOLDOFFTIMER of the other path associated with the same selector is also changed.
- The test set physical connection set up through ED-T3/DS1/STS1/VT1 of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, Ports 1 to 12), which are the monitoring ports.
  - The monitoring test access ports follow the common rules for the other cards. For example, with an ED-T3 command on Port 2 (FAC-6-2) that has a TACC number (8), the next port, Port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 on both Port 2 and Port 3 return the same TACC number (8) used to monitor the cross-connection end (A-B). The last port (Port 12) is not allowed to set up a physical connection with the test set because there is no next available port to be the monitoring port.

  - The TACC disconnection (DISC-TACC) and the test access mode change command (CHG-TACC) follow the same requirement as in the previous step, but it is applied on the ported ports of the DS3XM-12 card.
  - The test access connection setup command (CONN-TACC) has monitored points, which can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
- If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.
- Test access is not supported on the ONS 15310-CL.
- J2 path trace is not supported on the 15310-CL-CTX card of the ONS 15310-CL, however the CE-100T-8 or ML-100T-8 card provisioned in mapper mode does allow J2 provisioning.
- The cross-connects on the DS3i-N-12 card will be STS3c width, but the individual STS 1s within the 3C will be accessible. To edit the path attributes, use the ED-STS1 command with the FAC AID.

  For TACC creation, use the ED-STS3C command because the TACC path width (like the cross-connect) has to be 3C on the DS3i-N-12 card. In this case, you are creating a new entity (TAP) on the DS3i-N-12 card that has to be of 3C width. On the DS3i-N-12 card, the ED0STS command can be used either with STS1 or STS3C depending on the parameter to be modified.
- For the selector path on a BLSR, the SWPDIP is not editable and is always in the ON state. If you attempt to edit SWPDIP (for the selector path on a BLSR), an error message will be returned.
- You can create an STS1 or VT1.5 single TAP on the DS3XM-12 card's last ported port (12) if the bandwidth is available on that port.
- Optical ports do not support MAN and AUTO trace mode because they are not capable of raising AIS on TIM-P. Use the AUTO-NO-AIS or MAN-NO-AIS trace mode on optical ports.
- Sending the ED-VT1/VT2 commands over ONS 15454 path protection paths to edit SFBER or SDBER (when the ONS 15454 does not have an XC-VXC-10G cross-connect) will return the "Invalid Operation For The XCON" error message.
- Sending the ED-VT1/VT2 commands to edit SDBER with 1E-9 will return the "Out Of Range" error message.
- On the ONS 15310-MA, J2 path trace is supported on DS1 ports only. J2 path trace is not supported on ONS 15310-MA OCn ports and EC1 ports.

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**Category** Paths

**Security** Provisioning

**Input Format**

ED-<MOD_PATH>:[<TID>]:<AID>:<CTAG>:::[SFBER=<SFBER>],[SDBER=<SDBER>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SWPDIP=<SWPDIP>],
[HOLDOFFTIMER=<HOLDOFFTIMER>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],
[TRCMODE=<TRCMODE>],[TRCFORMAT=<TRCFORMAT>][TACC=<TACC>],
[TAPTYPE=<TAPTYPE>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-STS3C:FERNDALE:STS-2-1-4:115:::SFBER=1E-3,SDBER=1E-5,RVRTV=Y,RVTM=1.0, SWPDIP=Y,HOLDOFFTIMER=2000,EXPTRC="EXPTRCSTRING",TRC="TRCSTRING", TRCMODE=OFF,TRCFORMAT=64-BYTE,TACC=8,TAPTYPE=SINGLE, CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.11 CrossConnectId1" section on page 25-26. |
| <SFBER> | Signal failure threshold. Applies only to path protection. Applies to STS-level paths in SONET (STSn) and to VT-level paths on the ONS 15310-CL with an XC-VXC-10G card. Defaults to 1E-4. The parameter type is SF_BER, which is the threshold for declaring signal failure on a facility or path. |
| • 1E-3 | SFBER is 1E-3. |
| • 1E-4 | SFBER is 1E-4. |
| • 1E-5 | SFBER is 1E-5. |
| <SDBER> | Signal degrade threshold. Applies only to path protection. Applies to STS-level paths in SONET (STSn) and to VT-level paths on the ONS 15310-CL with an XC-VXC-10G card. 1E-9 is not allowed for VT-level/LO paths. Defaults to 1E-6. The parameter type is SD_BER, which is the threshold for declaring signal degrade on a facility or path. |
| • 1E-5 | SDBER is 1E-5. |
| • 1E-6 | SDBER is 1E-6. |
| • 1E-7 | SDBER is 1E-7. |
| • 1E-8 | SDBER is 1E-8. |
| • 1E-9 | SDBER is 1E-9. |
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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. Only applies to path protection. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. RVTM is not allowed to be set while RVRTV is N. Only applies to path protection. The parameter type is REVERTIVE_TIME (revertive time). |
| • 0.5 to 12.0 | Revertive time is 0.5 to 12.0 minutes. |
| <SWPDIP> | On/off switch for path protection payload defect level switching. Applicable only to STS-level paths in SONET (STSn). For the selector path on a BLSR, SWPDIP is not editable and always ON. Defaults to N. The parameter type is ON_OFF, which disables or enables an attribute. |

| | |
|---|---|
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <HOLDOFFTIMER> | Hold off timer for path protection dual-ring interconnect (DRI). Values must be within 0 and 10000 ms (0 to 10 seconds), with increments of 100 ms. Defaults to "existed value." HOLDOFFTIMER is an integer. |
| <EXPTRC> | Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). Applicable to STS-level paths in SONET (STSn). Applicable to VT-level paths for the DS3XM-12 and CE-100T-8 card on the ONS 15454 and the CE-100T-8 card on ONS 15310-CL. Defaults to 64 null characters. EXPTRC is a string. |
| <TRC> | The path trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the network element (NE) transmitting 62 null characters (hex 00) and CR and LF. Applicable to STS-level paths in SONET (STSn). Applicable to VT-level paths for the DS3XM-12 and CE-100T-8 card on the ONS 15454 and the CE-100T-8 card on ONS 15310-CL. For ONS 15310-CL, TRC is not provisionable on the EC/OC ports. Defaults to 64 null characters. TRC is a string. |
| <TRCMODE> | Path trace mode. Applicable only to STS-level paths in SONET (STSn). Defaults to the OFF mode. ONS 15310-CL EC/OC ports do not support MAN and AUTO, but can be configured as MAN-NO-AIS and AUTO-NO-AIS.<br>**Note** The ONS 15600 does not support MAN and AUTO<br>The parameter type is TRCMODE (trace mode). |
| • AUTO | Use the previously received path trace string as the expected string. Not applicable to muxponder (MXP) and transponder (TXP) cards. |
| • AUTO-NO-AIS | Use the previously received path trace string as the expected string and do not turn on the alarm indication signal (AIS) and remote defect indication (RDI) if TIM-P is detected. |
| • MAN | Use the provisioned expected string as the expected string. |
| • MAN-NO-AIS | Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIM-P is detected. |
| • OFF | Turn off path trace capability. Nothing will be reported. |
| <TRCFORMAT> | Path trace format. Only 64-byte is supported. Defaults to 64-byte. The parameter type is TRCFORMAT (trace format). |
| • 64-BYTE | 64 byte trace message |
| <TACC> | TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. TACC is an integer. |
| <TAPTYPE> | TAP type. Defaults to DUA The parameter type is TAPTYPE, which is the test access point type. |
| • DUAL | Dual FAD |
| • SINGLE | Single FAD |

| | |
|---|---|
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. Defaults to IS. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. Defaults to AINS. The parameter type is SST, which 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 |

# 11.6 ED-<MOD_RING>

(Cisco ONS 15454 and ONS 15600) The Edit Bidirectional Line Switched Ring (ED-<MOD_RING>) command edits the BLSR attributes.

## Usage Guidelines

ONS 15600 does not support four-fiber BLSR.

The RVRTV, RVTM, SRVRTV, SRVTM, NODEID, and RINGID attributes can be edited for the four-fiber BLSR.

The RVRTV, RVTM, NODEID, and RINGID attributes can be edited for the two-fiber BLSR.

The following actions will produce errors:

- If the system fails on getting IOR, a SROF (Get IOR Failed) error message is returned.
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- If the BLSR does not exist, a SRQN (BLSR Does Not Exist) error message is returned.
- The SROF (Facility Not Provisioned) or (Cannot Access BLSR) error message will be returned for an invalid query.
- The SRQN (BLSR Edition Failed) error message is returned for an invalid edition query.

- Sending this command to modify SRVRTV or SRVTM on a two-fiber BLSR will return an IDNV (Invalid Data For 2F-BLSR) error message.
- Sending this command to modify the nodeid with invalid data will return an IIAC (Invalid NodeId) error message.
- Sending this command to change the ringid into invalid data will return an IIAC (Invalid RingId) error message.
- Changing the BLSR nodeid with a duplicated ID will return a SROF (Cannot Set NodeId) error message.
- Changing the BLSR ringid with a duplicated ID will return a SROF (Cannot Set RingId) error message is returned.

**Note**

- The ALL AID is invalid for this command.
- The list AID format is supported for Software Release 4.6 and later.

**Category**

BLSR

**Security**

Provisioning

**Input Format**

ED-<MOD_RING>:[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>],[NODEID=<NODEID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],[SRVTM=<SRVTM>][:];

**Input Example**

ED-BLSR:PETALUMA:BLSR-43:123:::RINGID=43,NODEID=3,RVRTV=Y,RVTM=2.0,SRVRTV=Y,SRVTM=5.0;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.3 AidUnionId1" section on page 25-17. Identifies the BLSR of the NE. The ALL and BLSR-ALL AIDs are not allowed for editing BLSRs. |
| <RINGID> | The BLSR ID of the NE up to six characters. Valid characters are A–Z and 0–9. RINGID is a string. |
| <NODEID> | The BLSR node ID of the NE. NODEID ranges from 0 to 31. It is an integer. |

| | |
|---|---|
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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.<br><br>The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. RVTM is not allowed to be set while RVRTV is N. The 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. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <SRVTM> | The span revertive time for four-fiber BLSR only. SRVTM is not allowed to be set while SRVRTV is N. The parameter type is REVERTIVE_TIME (revertive time). |
| • 0.5 to 12.0 | Revertive time is 0.5 to 12.0 minutes. |

# 11.7 ED-<OCN_TYPE>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit OC3, OC12, OC48, or OC192 (ED-<OCN_TYPE>) command edits the attributes (for example, service parameters) and status of an OC-N facility. Allowable states for a facility are Out Of Service (OOS), Out Of Service and Automatic In Service (OOS-AINS), Out Of Service and Maintenance (OOS-MT), and In Service (IS). See Table 27-1 on page 27-1 for supported modifiers by platform.

## Usage Guidelines

- The OPRNOMINAL parameter is supported only by optical card types that support Optical PM. The following cards support OPRNOMINAL: OC3-8, MRC-12, MRC-12-2.5G, MRC-4-2.5G, OC192-XFP, CTX-2500, CTX, OC192-4, OC48-16, OC192-4-DWDM, ASAP-4.
- The data communications channel (DCC) transmit side is bridged to both working and protect in a 1+1 protection scheme. On the receive side, the active one is selected for DCC. The DCC is provisioned on the working port only in a 1+1 protection scheme.
- All lines in a 1+1 BLSR must have the same mode. If you change the mode of a line that is in a 1+1 BLSR, an error message will be returned.
- You cannot directly transition a facility from IS to OOS-MA,DSBLD service state. You can transition a facility to OOS-MA,DSBLD service state from any state except OOS-MA,MT. To transition a facility from OOS-MA,MT to OOS-MA,DSBLD service state, all the following conditions must be met:
  - The facility is not sourcing a synchronization clock
  - The facility's DCC is disabled
  - The facility is not part of a protection group

- The facility is not supporting cross-connects
- The facility is not using overhead connections or overhead terminations (such as express orderwire, local orderwire, or user data channels [UDCs])

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility from service (except for IS to OOS-MA,DSBLD transition) with no consideration for orderly interruption.

**Category** Ports

**Security** Provisioning

**Input Format**

ED-<OCN_TYPE>:[<TID>]:<AID>:<CTAG>:::[DCC=<DCC>],[AREA=<AREA>],
[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],[PJMON=<PJMON>],
[SFBER=<SFBER>],[SDBER=<SDBER>],[MODE=<MODE>],[MUX=<MUX>],
[SOAK=<SOAK>],[OSPF=<OSPF>],[LDCC=<LDCC>],[NAME=<NAME>],
[CMDMDE=<CMDMDE>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],
[TRCFORMAT=<TRCFORMAT>],[ADMSSM=<ADMSSM>],[SENDDUSFF=<SENDDUSFF>],
[AISONLPBK=<AISONLPBK>],[FREQ=<FREQ>],[LOSSB=<LOSSB>],
[FOREIGNFEND=<FOREIGNFEND>],[FOREIGNIP=<FOREIGNIP>],OPRNOMINAL=<OPRNOMINAL>]:[<PST>[,<SST>]];

**Input Example**

ED-OC48:PENNGROVE:FAC-6-1:114:::DCC=Y,AREA=10.92.63.1,SYNCMSG=N,
SENDDUS=N,PJMON=48,SFBER=1E-4,SDBER=1E-6,MODE=SINGLESHELF,MUX=E2,
SOAK=10,OSPF=Y,LDCC=N,NAME="OCNPORT",CMDMDE=CMDMDE,EXPTRC="AAA",
TRC="AAA",TRCMODE=MAN,TRCFORMAT=16-BYTE,ADMSSM=PRS,SENDDUSFF=N,
AISONLPBK=AIS_ON_LPBK_ALL,FREQ=1550,LOSSB=LR-1,FOREIGNFEND=N,
FOREIGNIP="IP ADDRESS",OPRNOMINAL=Y:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <DCC> | Indicates whether or not the SDCC is to be used. Identifies the SDCC connection of the port. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <AREA> | The area ID and shows up only if the DCC is enabled. AREA is a string. |
| <SYNCMSG> | Synchronization status message. The parameter type is EXT_RING, which indicates whether the ring supports the extended K1/K2/K3 protocol. |
| • N | The ring does not support the extended K1/K2/K3 protocol. |

| | |
|---|---|
| • Y | The ring does support the extended K1/K2/K3 protocol. |
| <SENDDUS> | The facility will send the DUS (Do not use for Synchronization) value as the SSM for that facility. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <PJMON> | Identifies an OC-N port PJMON. PJMON is an integer. It defaults to 0 (zero). Set a valid STS number of the optical port.<br>**Note** The PJMON number displayed in TL1 interface does not correspond to the PJVC4MON number in CTC, but instead corresponds to the STS number of the optical port. |
| <SFBER> | Signal failure threshold. The parameter type is SF_BER, which is the threshold for declaring signal failure on a facility or path. |
| • 1E-3 | SFBER is 1E-3. |
| • 1E-4 | SFBER is 1E-4. |
| • 1E-5 | SFBER is 1E-5. |
| <SDBER> | Signal degrade threshold. The parameter type is SD_BER, which is the threshold for declaring signal degrade on a facility or path. |
| • 1E-5 | SDBER is 1E-5. |
| • 1E-6 | SDBER is 1E-6. |
| • 1E-7 | SDBER is 1E-7. |
| • 1E-8 | SDBER is 1E-8. |
| • 1E-9 | SDBER is 1E-9. |
| <MODE> | This parameter identifies the facility's operating mode. The mode could be either SONET or SDH. |
| • SDH | SDH/ETSI mode |
| • SONET | SONET/ANSI mode |
| <MUX> | BLSR extension byte (supported only on the OC48AS card). MUX cannot be configured if:<br>• The card is SONET and the media type is SDHT.<br>• The card has an orderwire or user data channel (UDC) connection.<br>• This is a protect line and the working line has an orderwire or UDC connection.<br>The parameter type is MUX_TYPE, which is the BLSR extension type. |
| • E2 | E2 byte (orderwire) |
| • F1 | F1 byte (user) |
| • K3 | K3 byte |
| • Z2 | Z2 byte |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). Defaults to 32. SOAK is an integer. |

| | |
|---|---|
| <OSFP> | The Open Shortest Path First discovery. Defaults to Y. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <LDCC> | The LDCC connection on the port. Defaults to N. the parameter type is EXT_RING, which indicates if the ring supports the extended K1/K2/K3 protocol. |
| • N | The ring does not support the extended K1/K2/K3 protocol. |
| • Y | The ring does support the extended K1/K2/K3 protocol. |
| <NAME> | NAME is a user-specified string to identify the facility. It defaults to NULL. Its maximum length is 32 characters. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <EXPTRC> | Expected section trace content. Indicates the expected section trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). Applicable to STS-level paths in SONET (STSn). Applicable to VT-level paths for the DS3XM-12 card on the ONS 15454. Defaults to NULL. EXPTRC is a string. |
| <TRC> | The section trace message to be transmitted. The trace byte (J1) continuously transmits a 64-byte, fixed length ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (hex 00) and CR and LF. Applicable to STS-level paths in SONET (STSn). Applicable to VT-level paths for the DS3XM-12 card on the ONS 15454. TRC is a string. |
| <TRCMODE> | Secton trace mode. Applicable only to STS-level paths in SONET (STSn). Defaults to MAN. The parameter type is TRCMODE (trace mode). |
| • AUTO | Use the previously received section trace string as the expected string. Not applicable to MXP or TXP cards. |
| • AUTO-NO-AIS | Use the previously received section trace string as the expected string and do not turn on AIS and RDI if TIMP is detected. |
| • MAN | Use the provisioned expected string as the expected string. |
| • MAN-NO-AIS | Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIMP is detected. |
| • OFF | Turn off section trace capability. Nothing will be reported. |
| <TRCFORMAT> | Trace message size. The parameter type is TRCFORMAT (trace format). |
| • 1-BYTE | 1 byte trace message |

| | |
|---|---|
| • 16-BYTE | 16 byte trace message |
| • 64-BYTE | 64 byte trace message |
| <ADMSSM> | SSM selectable value. It will only appear when SSM is disabled. Defaults to STU. The parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL, which is the clock source quality level for SONET. |
| • DUS | Do Not Use For Synchronization |
| • PRS | Primary Reference Source, Stratum 1 Traceable |
| • RES | Reserved For Network Synchronization Use |
| • SMC | SONET Minimum Clock Traceable |
| • ST2 | Stratum 2 Traceable |
| • ST3 | Stratum 3 Traceable |
| • ST3E | Stratum 3E Traceable |
| • ST4 | Stratum 4 Traceable |
| • STU | Synchronized, Traceability Unknown |
| • TNC | Transit Node Clock (2nd Generation Only) |
| <SENDDUSFF> | The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <AISONLPBK> | The parameter type is AIS_ON_LPBK, which indicates if AIS is sent on a loopback. |
| • AIS_ONLPBK_FACILITY | AIS is sent on facility loopbacks. |
| • AIS_ON_LPBK_ALL | AIS is sent on all loopbacks. |
| • AIS_ON_LPBK_OFF | AIS is not sent on loopbacks. |
| • AIS_ON_LPBK_TERMINAL | AIS is sent on terminal loopbacks. |
| <FREQ> | The parameter type is OPTICAL_WLEN (optical wavelength). |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |

| | |
|---|---|
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |

| | |
|---|---|
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |

| | |
|---|---|
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |

| | |
|---|---|
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <LOSSB> | The parameter type is REACH (reach value) |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |

| | |
|---|---|
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <FOREIGNFEND> | Indicates whether the far-end NE on the DCC is a foreign NE. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <FOREIGNIP> | The IP address of the far-end NE on the DCC. Used only if FOREIGNFEND is Y. FOREIGHNIP is a string. |
| <OPRNOMINAL> | Reads the current raw optical receive power and sets the raw OPR value as the nominal optical receive power. |
| • N | Not Supported. |
| • Y | Sets the OPR. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. Defaults to AINS. The parameter type is SST, which 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 |

# 11.8 ED-ALS

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Automatic Laser Shutdown (ED-ALS) command is used to modify the ALS attributes of an OC-N facility and all the facilities that support the ALS feature. For transponder and muxponder cards, this command is used to modify the ALS parameter of the OC48 and OC192 ports.

**Usage Guidelines** None

**Category** Ports

**Security** Provisioning

**Input Format** ED-ALS:[<TID>]:<SRC>:<CTAG>:::[ALSMODE=<ALSMODE>],[ALSRCINT=<ALSRCINT>],[ALSRCPW=<ALSRCPW>][:];

**Input Example** ED-ALS::CHAN-1-1-1:100:::ALSMODE=AUTO,ALSRCINT=130,ALSRCPW=80.1;

**Input Parameters**

| | |
|---|---|
| <SRC> | Access identifier from the "25.2 AidUnionId" section on page 25-12. |
| <ALSMODE> | ALS is enabled or disabled. The parameter type is ALS_MODE, which is the working mode for automatic laser shutdown. |
| • AUTO | Automatic |
| • DISABLED | Disabled |
| • MAN | Manual |
| • MAN-RESTART | Manual restart for test |
| <ALSRCINT> | ALS recovery interval. The range is 60 to 300 seconds. ALSRCINT is an integer. |
| <ALSRCPW> | ALS recovery pulse width. The range is 2.0 to 100.00 seconds, in increments of 100 ms. ALSRCWP is a float. |

# 11.9 ED-APC

(Cisco ONS 15454) The Edit Amplification Power Control (ED-APC) command is used to modify the APC application attributes. The default value for an optional parameter is the NE default value. The value might not be the current value for the parameter. Use a retrieve command to retrieve the current value.

**Usage Guidelines** None

**Category** DWDM

**Security** Provisioning

**Input Format** ED-APC:[<TID>]::<CTAG>[:::APCENABLE=<APCENABLE>];

**Input Example** ED-APC:PENNGROVE:WDMSIDE-A:CTAG:::APCENABLE=N;

**Input Parameters**

| | |
|---|---|
| <WDMSIDE> | The AID is used to access the WDM side of an MSTP node. |
| • WDMSIDE-{UNKNOWN,A, B,C,D,E,F,G,H} | MSTP side identifier |
| <APCENABLE> | Enable or disable the APC application. Default is N. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |

# 11.10 ED-BITS

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Building Integrated Timing Supply (ED-BITS) command edits the building integrated timing supply (BITS) reference attributes.

**Usage Guidelines** The SYNC-BITS1 and SYNC-BITS2 AIDs can be used to set the BITS-OUT port state. For a BITS facility, 64 k and 6 MHz are only applicable to ON. SSM selectable (ADMSSM) is not applicable to ONS 15600. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Category** Synchronization

**Security** Provisioning

**Input Format** ED-BITS:[<TID>]:<AID>:<CTAG>:::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>], [SYNCMSG=<SYNCMSG>],[AISTHRSHLD=<AISTHRSHLD>],[SABIT=<SABIT>], [BITSFAC=<BITSFAC>],[ADMSSM=<ADMSSM>][:<PST>];

**Input Example**

ED-BITS:SONOMA:BITS-2:779:::LINECDE=AMI,FMT=ESF,LBO=0-133,SYNCMSG=N,
AISTHRSHLD=PRS,SABIT=BYTE-5,IMPEDANCE=120-OHM,BITSFAC=T1,ADMSSM=PRS:IS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.6 BITS" section on page 25-18. |
| <LINECDE> | The parameter type is LINE_CODE (line code). |
| • AMI | Line code value is AMI. |
| • B8ZS | Line code value is B8ZS (binary 8-zero substitution). |
| <FMT> | Digital signal frame format. The parameter type is FRAME_FORMAT, which is the frame format for a T1 port. |
| • D4 | Frame format is D4. |
| • ESF | Frame format is Extended Superframe (ESF). |
| • UNFRAMED | Frame format is unframed. |
| <LBO> | Line build-out settings. BITS line build-out. Default value is 0 to 133. LBO is an integer. The parameter type is BITS_LineBuildOut (BITS line build-out). |
| • 0–133 | BITS line build-out range is 0–133. |
| • 134–266 | BITS line build-out range is 134–266. |
| • 267–399 | BITS line build-out range is 267–399. |
| • 400–533 | BITS line build-out range is 400–533. |
| • 534–655 | BITS line build-out range is 534–655. |
| <SYNCMSG> | Indicates if the BITS facility supports synchronization status message. Default is ON (Y). The parameter type is EXT_RING, which indicates whether the ring supports the extended K1/K2/K3 protocol. |
| • N | The ring does not support the extended K1/K2/K3 protocol. |
| • Y | The ring does support the extended K1/K2/K3 protocol. |
| <AISTHRSHLD> | Alarm indication signal threshold. The parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL, which is the clock source quality level for SONET. |
| • DUS | Do Not Use For Synchronization |
| • PRS | Primary Reference Source, Stratum 1 Traceable |
| • RES | Reserved For Network Synchronization Use |
| • SMC | SONET Minimum Clock Traceable |
| • ST2 | Stratum 2 Traceable |
| • ST3 | Stratum 3 Traceable |
| • ST3E | Stratum 3E Traceable |
| • ST4 | Stratum 4 Traceable |
| • STU | Synchronized, Traceability Unknown |
| • TNC | Transit Node Clock (2nd Generation Only) |
| <SABIT> | When the frame format selection is E1, SABIT is the bit used to receive and transmit the SSM. The parameter type is SABITS (SA BITS). |
| • BYTE-4 | SABIT is BYTE-4. |

| | |
|---|---|
| • BYTE-5 | SABIT is BYTE-5. |
| • BYTE-6 | SABIT is BYTE-6. |
| • BYTE-7 | SABIT is BYTE-7. |
| • BYTE-8 | SABIT is BYTE-8. |
| <IMPEDANCE> | When the frame format selection is E1, IMPEDANCE is the terminal impedance of the BITS-IN port. The parameter type is IMPEDANCE, which is the terminal impedance of the BITS-IN port. |
| • 120-OHM | Impedance of 120 ohm |
| • 75-OHM | Impedance of 75 ohm |
| <BITSFAC> | BITS facility settings. BITS-2 always inherits the value of BITS-1. The parameter type is BITS_FAC (the BITS facility rate). 64 k and 6 MHz are only applicable to the ONS 15454. |
| • 2 M | 2 MHz rate |
| • 64 K | 64 K rate |
| • 6 M | 6 MHz rate |
| • E1 | E1 rate |
| • T1 | T1 rate |
| <ADMSSM> | SSM selectable. Only applicable to BITS-IN when SSM is disabled.<br>**Note** Not applicable for ONS 15600.<br>The parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL, which is the clock source quality level for SONET. |
| • DUS | Do Not Use For Synchronization |
| • PRS | Primary Reference Source, Stratum 1 Traceable |
| • RES | Reserved For Network Synchronization Use |
| • SMC | SONET Minimum Clock Traceable |
| • ST2 | Stratum 2 Traceable |
| • ST3 | Stratum 3 Traceable |
| • ST3E | Stratum 3E Traceable |
| • ST4 | Stratum 4 Traceable |
| • STU | Synchronized, Traceability Unknown |
| • TNC | Transit Node Clock (2nd Generation Only) |
| <PST> | The primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |

# 11.11 ED-BULKROLL-<OCN_TYPE>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Bulkroll for OC12, OC192, OC3, or OC48 (ED-BULROLL-<OCN_TYPE>) command edits information about the rolling of traffic from one endpoint to another without interrupting service. This command uses the FORCE option to force a valid signal. The only parameters that can be edited are RMODE and FORCE. The time slots cannot be edited. Use ED-ROLL-<MOD_PATH> for single path level rolling.

**Usage Guidelines**

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Category**

Bridge and Roll

**Security**

Provisioning

**Input Format**

ED-BULKROLL-<OCN_TYPE>:[<TID>]:<FROM>:<CTAG>:::
[RFROMSTART=<RFROMSTART>],[RFROMEND=<RFROMEND>],[CMDMDE=<CMDMDE>];

**Input Example**

ED-BULKROLL-OC48:PETALUMA:FAC-1-1:1:::RFROMSTART=STS-1-1-1,
RFROMEND=STS-1-1-11,CMDMDE=FRCD;

**Input Parameters**

| | |
|---|---|
| <FROM> | One of the endpoints. Access identifier from the "25.15 FACILITY" section on page 25-35 for line level rolling and bulk rolling. |
| <RFROMSTART> | The starting time slot in the source roll port. For bulk rolling only. The AID is from the "25.11 CrossConnectId1" section on page 25-26 (except VCM and FACILITY). Defaults to STS-<FROMSLOT>-<FROMPORT>-1, where <FROMSLOT> and <FROMPORT> are the slot and port of the <FROM> AID. |
| <RFROMEND> | The ending time slot in the source roll port. For bulk rolling only. The AID is from the "25.11 CrossConnectId1" section on page 25-26 (except VCM and FACILITY). 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). |

| | |
|---|---|
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |

# 11.12 ED-CMD-SECU

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Command Security (ED-CMD-SECU) command edits the command security level of a particular command.

**Usage Guidelines**

None

**Category**

Security

**Security**

Superuser

**Input Format**

ED-CMD-SECU:[<TID>]:<AID>:<CTAG>::<CAP>;

**Input Example**

ED-CMD-SECU::INIT-REG:1::SUPER;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier string. Identifies the entity in the NE to which the command pertains. It is the command verb along with verb modifier(s), as it currently exists. It can be a single command or a block of commands, where the block might include all commands. Only INIT-REG will be supported. String. Must not be null. |
| <CAP> | Command access privilege. Must not be null. The parameter type is PRIVILEGE, which is the security level. |
| • PROV | Provision security level. 60 minutes of idle time. |
| • SUPER | Superuser security level. 15 minutes of idle time. |

# 11.13 ED-COS-ETH

(Cisco ONS 15454) The Edit Ethernet Cost of Service Table (ED-ETH COS) command edits the egress parameter of a cost of service table associated to an L2 Ethernet port.

**Usage Guidelines**

The default values for all optional parameters are NE default values, but these values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Category**

Ethernet

**Security**

Provisioning

**Input Format**

ED-COS-ETH:[<TID>]:<AID>:<CTAG>:::[QOSENABLED=<QOSENABLED>],[BW0=<BWO>],
[WEIGHT0=<WEIGHT0>],[BW1=<BW1>],[WEIGHT1=<WEIGHT1>],[BW2=<BW2>],
[WEIGHT2=<WEIGHT2>],[BW3=<BW3>],[WEIGHT3=<WEIGHT3>],[BW4=<BW4>],
[WEIGHT4=<WEIGHT4>],[BW5=<BW5>],[WEIGHT5=<WEIGHT5>],[BW6=<BW6>],
[WEIGHT6=<WEIGHT6>],[BW7=<BW7>],[WEIGHT7=<WEIGHT7>][:];

**Input Example**

ED-COS-ETH:PETALUMA:ETH-1-1-1:1:::QOSENABLED=Y,BW0=10,WEIGHT0=0,BW1=20,
WEIGHT1=2,BW2=40,WEIGHT2=4,BW3=60,WEIGHT3=6,BW4=70,WEIGHT4=8,BW5=80,
WEIGHT5=10,BW6=85,WEIGHT6=12,BW7=100,WEIGHT7=15:;

**Input Parameters**

| | |
|---|---|
| <AID> | Ethernet AIDs are used to access L2 Ethernet ports. Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <QOSENABLED> | Used to enable or disable the egress QOS policy of an L2 Ethernet port. |
| • N | Disable the service. |
| • Y | Enable the service. |
| <BW0> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT0> | Value represents the weighted round-robin (WRR) weight associated to the COS values, an integer value between 0 and 15. |
| <BW1> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT1> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW2> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT2> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW3> | Bandwidth percentage, a value between 0 and 100. |

| | |
|---|---|
| <WEIGHT3> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW4> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT4> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW5> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT5> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW6> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT6> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |
| <BW7> | Bandwidth percentage, a value between 0 and 100. |
| <WEIGHT7> | Value represents the WRR weight associated to the COS values, an integer value between 0 and 15. |

# 11.14 ED-CRS-<PATH>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Cross-Connect for STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, VT1, or VT2 (ED-CRS-<PATH>) command edits a cross-connection.

## Usage Guidelines

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Note**

- ADD and REMOVE cannot be used together. The example provided is for informational purposes only. ADD and REMOVE are mutually exclusive.
- Add/Remove drops is possible only on ONEWAY, path protection_DROP, path protection_DC, and path protection_EN type cross-connects (one-way only).
- Traditional cross-connections cannot be upgraded to DRI cross-connections using the ED_CRS command.
- CKTID is a string of ASCII characters. The maximum length of CKTID is 48. If the CKTID is EMPTY or NULL, this field will not appear.
- You cannot add a drop onto unidirectional connections on BLSR DRI primary or secondary nodes.

## Category

Cross Connections

## Security

Provisioning

## Input Format

ED-CRS-<PATH>:[<TID>]:<SRC>,<DST>:<CTAG>::[<CCT>]:[ADD=<ADD>], [REMOVE=<REMOVE>],[CKTID=<CKTID>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-CRS-STS3C::STS-1-1-1,STS-2-1-1:1:::ADD=STS-13-1-1,REMOVE=STS-2-1-1,CKTID=CKTID CMDMDE=FRCD:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <SRC> | Source AID from the "25.11 CrossConnectId1" section on page 25-26. |
| <DST> | Destination AID from the "25.11 CrossConnectId1" section on page 25-26. |
| <CCT> | Cross-connection. The parameter type is CCT which indicates the type of cross-connection to be created. |
| • 1WAY | A unidirectional connection from a source tributary to a destination tributary |
| • 1WAYDC | Path Protection multicast drop (one-way continue) |
| • 1WAYEN | Path Protection multicast end node (one-way continue) |
| • 1WAYMON | A bidirectional connection between the two tributaries<br>**Note** In ONS 15454 Software Release 3.0 and later, 1WAYMON is not supported with TL1. However, it is still supported from Cisco Transport Controller (CTC). Using CTC, you can create 1WAYMON cross-connects that can be retrieved with 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 path protection traditional and integrated DRIs |
| • 2WAYPCA | A bidirectional connection between the two tributaries on the extra protection path/fiber |
| • DIAG | Diagnostics cross-connect. Supports BERT (BLSR PCA diagnostics cross-connect). |
| <ADD> | AID from the "25.2 AidUnionId" section on page 25-12. |
| <REMOVE> | AID from the "25.2 AidUnionId" section on page 25-12. |
| <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 (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |

| | |
|---|---|
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.15 ED-DAT

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Date and Time (ED-DAT) command edits the date and the time.

**Usage Guidelines** None

**Category** System

**Security** Provisioning

**Input Format** ED-DAT:[<TID>]::<CTAG>::[<DATE>],[<TIME>];

**Input Example** ED-DAT:PETALUMA::1234::99-12-21,14-35-15;

**Input Parameters**

| | |
|---|---|
| <DATE> | The new date. DATE is a string |
| <TIME> | The new time. TIME is a string. |

# 11.16 ED-DS1

(Cisco ONS 15454) The Edit DS1 (ED-DS1) command edits the test access attribute for DS1 access on a DS3XM card.

**Usage Guidelines**

- This command is not allowed if the card is a protect card.
- Both the MODE and FMT fields of this command apply to the DS3XM-12 card only.
- For the DS3XM-12 card, the DS1 frame format NE default is AUTO_PROV_FMT for the first 30 seconds to determine the real format. After 30 seconds, the DS1 frame format will be detected as FRAMED. If the frame format is not detected, it will be in the UNFRAMED format.
- For preprovisioning the DS3XM-12 card, the DS1 frame format defaults to UNFRAMED.
- For the DS3XM-12 card, the DS1 configurable attributes (PM, TH, alarm, etc.) only apply on the ported ports (Ports 1 to 12) and the VT-mapped (odd) portless ports in xxx-xxx-DS1 commands. If you provision or retrieve DS1 attributes on the DS3-mapped (even) portless port in xxx-xxx-DS1 commands, an error message will be returned.
- The test set physical connection that is set up through the ED-T3/DS1/STS1/VT1 command of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, Ports 1 to 12), which are the monitoring ports, as follows:
  - The monitoring test access ports follow the common rules for the other cards. For example, when issuing the ED-T3 command on Port 2 (FAC-6-2) with a TACC number (8), the next port, Port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 command on both Port 2 and Port 3 return the same TACC number (8) being used to monitor the cross-connection end (A-B). The last port (Port 12) is not allowed to set up a physical connection with the test set because there is no next available port to be the monitoring port.
  - The TACC disconnection (DISC-TACC) and the test access mode change command (CHG-TACC) follow the same requirement as in the previous step, but it is applied on the ported ports of the DS3XM-12 card.
  - The test access connection set-up command (CONN-TACC) has monitored points, which can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
- If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-DS1:[<TID>]:<AID>:<CTAG>:::[TACC=<TACC>],[TAPTYPE=<TAPTYPE>], [AISONLPBK=<AISONLPBK>],[MODE=<MODE>],[FMT=<FMT>];

**Input Example**

ED-DS1:PETALUMA:DS1-2-1-12:123:::TACC=8,TAPTYPE=DUAL,AISONLPBK=OFF, MODE=FDL,FMT=ESF;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.12 DS1" section on page 25-32. |
| <TACC> | TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. TACC is an integer. |
| <TAPTYPE> | TAP type. The parameter type is TAPTYPE (test access point type). |
| • DUAL | Dual FAD |
| • SINGLE | Single FAD |
| <AISONLPBK> | The parameter type is AIS_ON_LPBK, which indicates whether AIS is sent on a loopback. |
| • AIS_ONLPBK_FACILITY | AIS is sent on facility loopbacks. |
| • AIS_ON_LPBK_ALL | AIS is sent on all loopbacks. |
| • AIS_ON_LPBK_OFF | AIS is not sent on loopbacks. |
| • AIS_ON_LPBK_TERMINAL | AIS is sent on terminal loopbacks. |
| <MODE> | Mode with which the command is to be implemented. DS1 path mode of the DS3XM-12 card. Defaults to FDL. The parameter type is DS1MODE, which is the DS1 path mode of the DS3XM-12 card. |
| • ATT | The DS1 path of the DS3XM-12 card is in AT&T 54016 mode. |
| • FDL | The DS1 path of the DS3XM-12 card is in FDL T1-403 mode. |
| <FMT> | Digital signal format. The DS1 path frame format of the DS3XM-12 card. Defaults to UNFRAMED. The parameter type is FRAME_FORMAT, which is the frame format for a T1 port. |
| • D4 | Frame format is D4. |
| • ESF | Frame format is ESF. |
| • UNFRAMED | Frame format is unframed. |

# 11.17 ED-EC1

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Electrical Carrier (ED-EC1) command edits the attributes of an EC1 card.

**Usage Guidelines**

- This command is not allowed if the card is a protecting card.
- You cannot directly transition a facility from IS to OOS-MA,DSBLD service state. You can transition a facility to OOS-MA,DSBLD service state from any state except OOS-MA,MT. To transition a facility from OOS-MA,MT to OOS-MA,DSBLD service state, all the following conditions must be met:
  - The facility is not sourcing a synchronization clock
  - The facility's DCC is disabled
  - The facility is not part of a protection group
  - The facility is not supporting cross-connects
  - The facility is not using overhead connections or overhead terminations (such as express orderwire, local orderwire, or user data channels [UDCs])

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility from service (except for IS to OOS-MA,DSBLD transition) with no consideration for orderly interruption.

**Category** Ports

**Security** Provisioning

**Input Format**

ED-EC1:[<TID>]:<AID>:<CTAG>:::[PJMON=<PJMON>],[LBO=<LBO>],[SOAK=<SOAK>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],[<TRCFORMAT>],[AISONLPBK=<AISONLPBK>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-EC1:PETALUMA:FAC-1-1:123:::PJMON=0,LBO=0-225,SOAK=10,SFBER=1E-4,SDBER=1E-6,NAME="EC1 PORT",EXPTRC="AAA",TRC="AAA",TRCMODE=MAN,TRCFORMAT="16-BYTE,AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <PJMON> | A SONET pointer number (0 or 1) of an EC1 port. PJMON is an integer. It defaults to 0. |
| <LBO> | Line build-out settings. LBO is an integer. It defaults to 0–225. The parameter type is E_LBO (electrical signal line build-out). |
| • 0–225 | Electrical signal line build-out range is 0–225. |
| • 226–450 | Electrical signal line build-out range is 226–450. |
| <SOAK> | IS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. Defaults to 32. |
| <SFBER> | Signal failure threshold. Defaults to 1E-4. The parameter type is SF_BER, which is the threshold for declaring signal failure on a facility or path. |
| • 1E-3 | SFBER is 1E-3. |
| • 1E-4 | SFBER is 1E-4. |
| • 1E-5 | SFBER is 1E-5. |
| <SDBER> | Signal degrade threshold. Defaults to 1E-7. The parameter type is SD_BER, which is the threshold for declaring signal degrade on a facility or path. |
| • 1E-5 | SDBER is 1E-5. |
| • 1E-6 | SDBER is 1E-6. |

| | |
|---|---|
| • 1E-7 | SDBER is 1E-7. |
| • 1E-8 | SDBER is 1E-8. |
| • 1E-9 | SDBER is 1E-9. |
| <NAME> | NAME is a string. Default value is NULL. Maximum length is 32 characters. |
| <EXPTRC> | String |
| <TRC> | String |
| <TRCMODE> | The parameter type is TRCMODE (trace mode). |
| • AUTO | Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards. |
| • AUTO-NO-AIS | Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIM-P is detected. |
| • MAN | Use the provisioned expected string as the expected string. |
| • MAN-NO-AIS | Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIM-P is detected. |
| • OFF | Turn off path trace capability. Nothing will be reported. |
| <TRCFORMAT> | Trace message size. The parameter type is TRCFORMAT (trace format). |
| • 1-BYTE | 1 byte trace message. |
| • 16-BYTE | 16 byte trace message. |
| • 64-BYTE | 64 byte trace message. |
| • Y | Enable an attribute. |
| <AISONLPBK> | Defaults to AIS_ONLPBK_FACILITY. The parameter type is AIS_ON_LPBK, which indicates whether AIS is sent on a loopback. |
| • AIS_ONLPBK_FACILITY | AIS is sent on facility loopbacks. |
| • AIS_ON_LPBK_ALL | AIS is sent on all loopbacks. |
| • AIS_ON_LPBK_OFF | AIS is not sent on loopbacks. |
| • AIS_ON_LPBK_TERMINAL | AIS is sent on terminal loopbacks. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. Defaults to IS. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. Defaults to AINS. The parameter type is SST, which 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 |

# 11.18 ED-ETH

(Cisco ONS 15454, ONS 15310-CL, and 15310-MA) The Edit Ethernet (ED-ETH) command edits the front-end port information of a 10/100/1000 Mbps Ethernet card.

## Usage Guidelines

The default values for all optional parameters are NE default values, but these values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Note** This command is available in Software Release 8.0.1 and all subsequent releases. It is not available in R8.0.0.

## Category

Ethernet

## Security

Provisioning

## Input Format

ED-ETH:[<TID>]:<AID>:<CTAG>:::[FLOW=<FLOW>],[EXPDUPLEX=<EXPDUPLEX>],[EXPSPEED=<EXPSPEED>],[VLANCOS=<VLANCOS>],[IPTOS=<IPTOS>],[NAME=<NAME>],[CMDMDE=<CMDMDE>],[SUPPRESS=<SUPPRESS>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

## Input Example

ED-ETH:CISCO:FAC-1-1:123:::FLOW=Y,EXPDUPLEX=AUTO,EXPSPEED=10_MBPS,
VLANCOS=1175S,IPTOS=368,NAME="ETH PORT",CMDMDE=NORM,
SUPPRESS=Y,SOAK=32:IS,AINS;

## Input Parameters

| | |
|---|---|
| <AID> | Ethernet AIDs are used to access L2 Ethernet ports. Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <FACILITY> | Access identifier from the "25.15 FACILITY" section on page 25-35 |

| | |
|---|---|
| <FLOW | (Optional) Flow. The parameter type is ON_OFF (disable or enable an attribute). |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <EXPDUPLEX> | (Optional) Ethernet duplex mode. The parameter type is ETHER_DUPLEX, which is the duplex mode. |
| • AUTO | Auto mode |
| • FULL | Full mode |
| • HALF | Half mode |
| <EXPSPEED> | (Optional) Ethernet speed. The parameter type is ETHER_SPEED, which is the Ethernet speed. |
| • 100_MBPS | 100 Megabits per second |
| • 10_GBPS | 10 Gigabits per second |
| • 10_MBPS | 10 Megabits per second |
| • 1_GBPS | 1 Gigabit per second |
| • AUTO | Auto |
| <VLANCOS> | (Optional) Priority queing threshold based on VLAN class of service for incoming Ethernet packets. VLANCOS is an integer. |
| <IPTOS> | (Optional) Priority queing threshold based on IP type of service for incoming Ethernet packets. IPTOS is an integer. |
| <NAME> | (Optional) Name. NAME is a string. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| <SUPPRESS> | Pre-service alarm flag for data ports. This parameter is supported on ML-series cards only. |
| • Y | Enable suppress. |
| • N | Disable suppress. Default is Off. |
| <SOAK> | (Optional) OOS-AINS to IS transition soak time as measured in 15-minute intervals. SOAK is an integer. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.19 ED-EQPT

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Equipment (ED-EQPT) command edits the attributes for a given equipment slot in the NE. If the card is in an equipment slot, this command is allowed only on the working AID.

The ED-EQPT command also modifies a shelf role from node controller (NC) to shelf controller (SC) on an NE configured in multishelf mode.

**Note** The ONS 15600 only supports the TID, AID, CTAG, PST, and SST parameters.

## Usage Guidelines

The PROTID parameter indicates the unique identifier of the protection group (the protect card). “NULL” is a special value of the PROTID parameter and indicates the absence of a protection group. For the 1:1 protection type, RVRTV and RVTM parameters can be changed. For the 1:1 protection type, if the PROTID parameter is entered as “NULL”, the protection group is deleted, as shown in the following command:

ED-EQPT:[<TID>]:SLOT-2:<CTAG>:::PROTID=NULL;

For the 1:N protection type, if the PROTID is “NULL,” the AIDs in the list are removed from the protection group. If all the working cards are in the AID list, the protection group is deleted.

For example, if Slot 1, Slot 2, and Slot 4 were the only working cards in the protection group, the following command would remove Slot 4 from the protection group:

ED-EQPT:[<TID>]:SLOT-4:<CTAG>:::PROTID=NULL;

The protection group still has Slot 1 and Slot 2 as working cards.

The following command will remove all the other working cards in the above example and consequently, delete the protection group itself:

ED-EQPT:[<TID>]:SLOT-2&SLOT-1:<CTAG>:::PROTID=NULL;

The ED-EQPT command can be successfully executed on an already provisioned card to add or remove a working card from a protection group. This command is not valid on a protect card. Only cards can be added to or removed from a protection group. Protection type is immutable and is determined at the time of creation of a protection group (while adding the first working card). After it is provisioned, the equipment type cannot be edited either.

Examples of adding an existing card to a protection group using the ED-EQPT command:

1:1 protection group:

ED-EQPT::SLOT-2:12:::PROTID=SLOT-1,RVRTV=Y,RVTM=9.0;

1:N protection group:

ED-EQPT::SLOT-2:12:::PROTID=SLOT-3,PRTYPE=1-N,RVTM=6.5;

Error conditions for editing a 1:1 or 1:N protection group might be:

- Editing the PRTYPE or PROTID (non-NULL value) parameters.
- Editing RVRTV or RVTM when no protection group exists.
- Editing RVRTV for 1:N protection.
- Failed to remove, currently switched to protect.
- CARDMODE provisioning is allowed on the DS3XM-12 cards as follows:
  - DS3XM-12 card provisioning is based on the XCON type and DS3XM-12 card's location. For example, the DS3XM-12 card in the lower speed I/O slot with the XCVT card only allows the DS3XM-12-STS12 CARDMODE. Other cases allow the CARDMODE to be DS3XM-12-STS-48.
  - There is no card reboot if the CARDMODE is changed on the DS3XM-12 card.
  - The DS3XM-12 card can be upgraded or downgraded by changing the CARDMODE with the ED-EQPT command.

CMDMDE provisioning behaves as follows:

- If the command mode (CMDMDE) is set to NORM during the creation of a 1:1 or 1:N protection group, all cards must be physically plugged in and in the service state (IS). If the cards are not physically plugged in and are not in ready state, the command is denied with an appropriate error message. CMDMDE=FRCD will override the default behavior and allow creation of protection group regardless of the physical presence and ready state of cards.
- If the command mode is set to NORM during the removal of a card in a 1:1 or 1:N protection group, there must be no cross-connects (for example, services) present on the card. CMDMDE=FRCD will override the default behavior and allow deletion of protection group regardless of presence of cross-connects on the card.

RETIME provisioning is allowed only on the DS1/E1-56 (ONS 15454) and DS1-84-DS3-EC1-3 (ONS 15310-MA SONET) cards.

Input parameters <PEERID>,<REGENNAME>,<PEERNAME>,<SHELFROLE>,<NEWSHELFID>, <FRPROLE>, and, <FRPSTATE> are not supported on Cisco ONS 15310-MA SONET.

**Note** For the FC_MR-4 card, the card mode cannot be changed to FCMR-LINERATE when the payload on any port is 1GFICON or 2GFICON. These payloads are allowed only in distance extension card mode.

**Note** On the Cisco ONS 15310-MA, only 1:1 protection groups are supported. Protection groups are automatically created when the protect card is provisioned. The protection group is automatically deleted when the protect card is deleted. The protection group cannot be deleted by entering NULL for the PROTID parameter, doing so will return the Provisioning Rules Failed (SROF) error.

**Category** Equipment

**Security** Provisioning

**Input Format**

ED-EQPT[:<TID>]:<AID>:<CTAG>[:::PROTID=<PROTID>,][PRTYPE=<PRTYPE>,]
[RVRTV=<RVRTV>,][RVTM=<RVTM>,][CARDMODE=<CARDMODE>,][PEERID=<PEERID>,]
[REGENNAME=<REGENNAME>,][PEERNAME=<PEERNAME>,][CMDMDE=<CMDMDE>,]
[RETIME=<RETIME>,][SHELFROLE=<SHELFROLE>,][NEWSHELFID=<NEWSHELFID>,]
[FRPROLE=<FRPROLE>,][FRPSTATE=<FRPSTATE>];[<PST>[,<SST>]];

**Input Example**

ED-EQPT:CISCO:SLOT-2:123:::PROTID=SLOT-1,PRTYPE=1-1,RVRTV=Y,RVTM=9.0,
CARDMODE=DS3XM12-STS48,PEERID=SLOT-2,REGENNAME="THIS GROUP",
CMDMDE=FRCD,RETIME=Y,SHELFROLE=SC,NEWSHELFID=2:OOS,MT,
FRPROLE=MASTER,FRPSTATE=Y:OOS,MT;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.14 EQPT" section on page 25-33. |
| <PROTID> | Protect card slot number of the protection group from the "25.22 PRSLOT" section on page 25-43. |
| <PRTYPE> | Protection group type. The parameter type is PROTECTION_GROUP. |
| • 1-1 | 1:1 protection group |
| • 1-N | 1:N protection group |
| <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. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <RVTM> | Revertive time. The parameter type is REVERTIVE_TIME. |
| • 0.5 to 12.0 | Revertive time is 0.5 to 12.0 minutes. |
| <CARDMODE> | Defines the card mode. |
| • AMPL-BST | The optical amplifier is working as an optical booster. |
| • AMPL-PRE | The optical amplifier is working as an optical preamplifier. |
| • CEMR-AUTO | Auto allocation of back-end channels for CE-MR-6 (Cisco ONS 15310-MA SONET only) cards. |
| • CEMR-MANUAL | Manual allocation of back-end channels for CE-MR-6 (Cisco ONS 15310-MA SONET only) cards. |
| • DS1E1-DS1ONLY | DS1 mode on DS1E1 card |
| • DS1E1-E1ONLY | E1 mode on DS1E1 card |
| • DS3XM-12-STS12 | Indicates the DS3XM-12 card in the STS12 back plane rate mode |
| • DS3XM-12-STS48 | Indicates the DS3XM-12 card in the STS48 back plane rate mode |

| | |
|---|---|
| • DWDM-LINE | Line terminating mode |
| • DWDM-SECTION | Section terminating mode |
| • 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 |
| • GEXP-10x1Gx2-MXP | GE-XP behaves as a double Muxponder having ten 1 Gbps client facilities with one trunk. The first 10 GIGE clients are associated to the first trunk (21), while GIGE facilities from 11 to 20 are associated to trunk 22. |
| • GEXP-20x1G-MXP | GE-XP behaves as a single Muxponder having ten 1 Gbps client facilities with one trunk. Only the first 10 GIGE clients are associated to the first trunk (21) while the other facilities are unused. |
| • GEXP-L2ETH | GE-XP behaves as an L2 Ethernet Switch. |
| • ML-GFP | ML-Series card in DOS field-programmable gate array (FPGA) using generic framing procedure (GFP) framing type |
| • ML-HDLC | ML-Series card in DOS FPGA using high-level data link control (HDLC) framing type |
| • ML-IEEE-RPR | Ml-Series card in DOS FPGA THAT supports Resilient Packet Ring (RPR) |
| • MXPMR10DME-4GFC | 4-Gbps Fibre Channel/FICON mode for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 1 and 5 |
| • MXPMR10DME-4GFC-FCGEISC | 4-Gbps Fibre Channel/FICON supported on Port 1 and Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 5 to 8 |
| • MXPMR10DME-FCGEISC | Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on all eight ports |
| • MXPMR10DME-FCGEISC-4GFC | Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 1 to 4 and 4-Gbps Fibre Channel/FICON supported on Port 5 |
| • MXPMR10G-FCGEISC | Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on all eight ports |
| • MXPMR10G-4GFC | 4-Gbps Fibre Channel/FICON mode for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 1 and 5 |
| • MXPMR10G-FCGEISC-4GFC | Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 1 to 4 and 4-Gbps Fibre Channel/FICON supported on Port 5 |

| | |
|---|---|
| • MXPMR10G-4GFC-FCGEISC | 4-Gbps Fibre Channel/FICON supported on Port 1 and Fibre Channel, GIGE, and ISC modes for the Cisco ONS 15454 MXP_MR_10DME_C and MXP_MR_10DME_L cards supported on Ports 5 to 8. |
| • MXPMR25G-ESCON | ESCON mode for the Cisco ONS 15454 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 MXP_2.5G_10G card |
| • UNKNOWN | Unknown equipment type |
| <PEERID> | The regeneration peer slot from the "25.14 EQPT" section on page 25-33. |
| <REGENNAME> | The name of a regeneration group. REGENNAME is a string. |
| <PEERNAME> | PEERNAME is a user-specified string used to identify ADM-10G peer groups. It defaults to NULL. Its maximum length is 32 characters. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <RETIME> | (Optional) Indicates the RETIME function for all the facilities on this card. Applicable only to the DS1/E1-56 (ONS 15454) and DS1-84-DS3-EC1-3 (ONS 15310-MA SONET) cards. The parameter type is ON_OFF, which disables or enables an attribute. |
| • NO | No |
| • YES | Yes |
| <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. |
| <NEWSHELFID> | (Optional) New shelf identifier is used to change the value of the shelf identifier for the addressed shelf. The value must be different by one and can be in the range from two to eight. This field can only be changed if (in the same command) the SHELFROLE is equal to SC. Integer. |
| <FRPROLE> | Indicates the fast ring protection enable mode for GE-XP/10GE-XP units involved in a protection scheme. |
| • MASTER | Role is of card master of the ring. |
| • SLAVE | Role is of card slave of the ring. |

| | |
|---|---|
| <FRPSTATE> | Indicates the fast ring protection enable state. |
| • DISABLED | Disabled protection |
| • ENABLED | Enabled protection |
| • FORCED | Forced protection |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.20 ED-FAC

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Facility (ED-FAC) command provisions the payload (or signal) type of facility. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Note** Command is supported only on the STM1E-12 card.

**Usage Guidelines** None

**Category** Ports

**Security** Provisioning

**Input Format** ED-FAC:[<TID>]:<SRC>:<CTAG>:::[PAYLOAD=<PAYLOAD>], [CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-FAC:PETALUMA:FAC-3-9:2222:::PAYLOAD=E4-FRAMED,CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <SRC> | Source access identifier from the "25.15 FACILITY" section on page 25-35. |
| <PAYLOAD> | The payload for the card. The parameter type is PAYLOAD, which identifies the payload type. |
| • E4 Framed | E4 Framed facility |
| • E4 Unframed | E4 Unframed facility |
| • STM 1E | STM 1E facility |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. Defaults to IS. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. Defaults to AINS. The parameter type is SST, which provides additional information pertaining to PST and PSTQ. |
| • AINS | Automatic in service |
| • DSBLD | Disabled |
| • MT | Maintenance mode |
| • OOG | Out of group |

# 11.21 ED-FFP-<MOD2DWDMPAYLOAD>

(Cisco ONS 15454) The Edit Facility Protection Group for 10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, 4GFC, 4GFICON, D1VIDEO, DV6000, ETRCLO, GIGE, or HDTV (ED-FFP-<MOD2DWDMPAYLOAD>) command edits a Y-cable protection group on client facilities.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-FFP-<MOD2DWDMPAYLOAD>:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];

**Input Example**

ED-FFP-1GFC:CISCO:FAC-1-1:100:::PROTID=DC-METRO,RVRTV=N,RVTM=1.0,PSDIRN=BI;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <PROTAID> | The protection group identifier (protection group name). Defaults to the protecting port AID of the protection group. PROTAID can have a maximum length of 32 characters. It is a string. |
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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. Only applies to path protection configurations. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. RVTM is not allowed to be set while "RVRTV" is N. Only applies to path protection configurations. The 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 switching mode. Defaults to UNI.<br>**Note** The MXP_2.5G_10G and TXP_MR_10G cards do not support bidirectional switching.<br>The parameter type is UNI_BI (unidirectional switch operations). |
| • BI | Bidirectional protection switching |
| • UNI | Unidirectional protection switching |

# 11.22 ED-FFP-<OCN_TYPE>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Facility Protection Group for OC3, OC12, OC48, or OC192 (ED-FFP-<OCN_TYPE>) command edits the optical facility protection.

**Usage Guidelines**

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Note**

- This command can be used on both protecting and working AIDs. Optimized 1+1 and related attributes are only applicable to the ONS 15454.

- Optimized 1+1 and related attributes are only applicable to ONS 15454.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command obtain the current value.

**Category**

Protection

**Security**

Provisioning

**Input Format**

ED-FFP-<OCN_TYPE>:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],[DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>][:];

**Input Example**

ED-FFP-OC3:PETALUMA:FAC-1-1:1:::PROTID=PROT_NAME,RVRTV=Y,RVTM=1.0,PSDIRN=BI,VRGRDTM=0.5,DTGRDTM=1.0,RCGRDTM=1.0;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <PROTAID> | The protection group identifier (protection group name). PROTAID can have a maximum length of 32 characters. It is a string. |
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. The 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. Indicates the switch mode. Defaults to UNI. The parameter type is UNI_BI (unidirectional and bidirectional switch operations). |
| • BI | Bidirectional protection switching |
| • UNI | Unidirectional protection switching |
| <VRGRDTM> | Verification guard timer. Only applicable to optimized 1+1. The parameter type is VERIFICATION_GUARD_TIMER (optimized 1+1 verification guard timer). |
| • 0.5 | 500 milliseconds |
| • 1.0 | 1 second |

| | |
|---|---|
| <DTGRDTM> | Detection guard timer. Only applicable to optimized 1+1. The parameter type is DETECTION _GUARD_TIMER (optimized 1+1 detection guard timer). |
| • 0.0 | 0 seconds |
| • 0.05 | 50 milliseconds |
| • 0.1 | 100 milliseconds |
| • 0.5 | 500 milliseconds |
| • 1.0 to 5.0 | 1 second to 5 seconds |
| <RCGRDTM> | Recovery guard timer. Only applicable to optimized 1+1. The parameter type is RECOVERY_GUARD_TIMER (optimized 1+1 recovery guard timer). |
| • 0.0 | 0 seconds |
| • 0.05 | 50 milliseconds |
| • 0.1 | 100 milliseconds |
| • 0.5 | 500 milliseconds |
| • 1.0 to 10.0 | 1 second to 10 seconds |

# 11.23 ED-FFP-OCH

(Cisco ONS 15454) The Edit Facility Protection Group Optical Channel (ED-FFP-OCH) command changes the provisioning for the default protection group on the DWDM port of a TXP_MR_2.5G and TXPP_MR_2.5G card.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-FFP-OCH:[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>][:];

**Input Example**

ED-FFP-OCH:VA454-22:CHAN-2-2:100:::PROTID=“FIXEDPROTECTION”,RVRTV=N,RVTM=1.0,PSDIRN=BI;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the “25.8 CHANNEL” section on page 25-20. |
| <PROTAID> | The protection group identifier (protection group name). PROTAID is a string. |

| | |
|---|---|
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. The 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. The parameter type is TRANS_MODE (G1000 transponder mode) |
| • BI | Bidirectional |
| • NONE | Not in transponder mode |
| • UNI | Unidirectional |

# 11.24 ED-FSTE

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Fast Ethernet (ED-FSTE) command edits the front-end port information of the fast (10/100 Mbps) Ethernet card.

## Usage Guidelines

The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Note** For the ML-100T-8 card, only the NAME parameter can be set.

## Category

Ports

## Security

Provisioning

## Input Format

ED-FSTE:[<TID>]:<AID>:<CTAG>:::[FLOW=<FLOW>],[EXPDUPLEX=<EXPDUPLEX>], [EXPSPEED=<EXPSPEED>],[VLANCOS=<VLANCOS>],[IPTOS=<IPTOS>], [NAME=<NAME>],[CMDMDE=<CMDMDE>],[SUPPRESS=<SUPPRESS>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

## Input Example

ED-FSTE:CISCO:FAC-1-1:123:::FLOW=Y,EXPDUPLEX=AUTO,EXPSPEED=10_MBPS, VLANCOS=1175,IPTOS=368,NAME="FSTE PORT",CMDMDE=NORM,SUPPRESS=Y, SOAK=32:UNLOCKED,AUTOMATICINSERVICE;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <FLOW> | Flow control. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <EXPDUPLEX> | Ethernet duplex mode. The parameter type is ETHER_DUPLEX (duplex mode). |
| • AUTO | Auto mode |
| • FULL | Full mode |
| • HALF | Half mode |
| <EXPSPEED> | Ethernet speed. The parameter type is ETHER_SPEED (Ethernet speed). |
| • 100_MBPS | 100 Megabits per second |
| • 10_GBPS | 10 Gigabits per second |
| • 10_MBPS | 10 Megabits per second |
| • 1_GBPS | 1 Gigabits per second |
| • AUTO | Auto |
| <VLANCOS> | Priority queuing threshold based on VLAN class of service of incoming Ethernet packets. Default value is 1175. VLANCOS is an integer. |
| <IPTOS> | Priority queuing threshold based on IP type of service of incoming Ethernet packets. Default value is 368. IPTOS is an integer. |
| <NAME> | Name. NAME is a string. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <SUPPRESS> | Pre-service alarm flag for data ports. This parameter is supported on ML-series cards only. |
| • Y | Enable suppress. |
| • N | Disable suppress. Default is Off. |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15 minute intervals, so a value of 4 translates to a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |

| | |
|---|---|
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.25 ED-G1000

(Cisco ONS 15454) The Edit G1000 (ED-G1000) command edits the attributes related to a G1000 port.

**Usage Guidelines**

The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-G1000:[<TID>]:<AID>:<CTAG>:::[MFS=<MFS>],[FLOW=<FLOW>],
[LOWMRK=<LOWMRK>],[HIWMRK=<HIWMRK>],[AUTONEG=<AUTONEG>],
[NAME=<NAME>],[CMDMDE=<CMDMDE>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

**Input Example**

ED-G1000:PETALUMA:FAC-1-1:CTAG:::MFS=1548,FLOW=Y,LOWMRK=20,HIWMRK=492,
AUTONEG=Y,NAME="G1000 PORT",CMDMDE=FRCD,SOAK=32:OOS,DSBLD;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |

| | |
|---|---|
| <MFS> | Maximum frame size. the parameter type is MFS_TYPE, which is the maximum frame size used by an Ethernet card. |
| • 1548 | Normal frame size |
| • JUMBO | Jumbo frame size |
| <FLOW> | Flow control. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <LOWMRK> | Low watermark value. LOWMRK is an integer. Defaults to 25. LOWMRK is available in Software Release 4.0.1 and later. |
| <HIWMRK> | High watermark value. HIWMRK is an integer. Defaults to 485. |
| <AUTONEG> | Automatic negotiation. Defaults to Y. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <NAME> | Name. NAME is a string. Default is NULL. Maximum length is 32 characters. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. Defaults to 32. |
| <ENCAP> | Encapsulation. ENCAP is a string. |
| <PST> | Primary state. Defaults to OOS. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. Defaults to DSBLD. The parameter type is SST, which 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 |

# 11.26 ED-GFP

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Generic Framing Protocol (ED-GFP) command edits GFP parameters on the ONS 15454 CE-100T-8, FC_MR-4, CE-1000-4, and the ONS 15310-CL CE-100T-8, and the ONS 15600 ASAP cards.

**Usage Guidelines**

- The ONS 15600 only supports the TID, AID, CTAG, and FCS parameters.
- This command does not apply to the ONS 15310-CL ML-100T-8 card.
- For the FC_MR-4 card, the parameters AUTOTHGFPBUF, GFPBUF, and FILTER can be edited only if distance extension is enabled (set to B2B).

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-GFP:[<TID>]:<AID>:<CTAG>:::[FCS=<FCS>],[AUTOTHGFPBUF=<AUTOTHGFPBUF>],[GFPBUF=<GFPBUF>],[FILTER=<FILTER>];

**Input Example**

ED-GFP:PETALUMA:VFAC-1-0:123:::FCS=N,AUTOTHGFPBUF=Y,GFPBUF=16,FILTER=INGRESS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35.<br>**Note** VFAC AID is used for the CE-100T-8 cards on the ONS 15310-CL and ONS 15454 and for the ASAP cards on the ONS 15600. ML-100T-8 GFP management is done through the Cisco IOS command-line interface (CLI) and not through the TL1 interface. The FAC AID is used for the ONS 15454 FC_MR-4. |
| <FCS> | Payload frame check sequence. The parameter type is FCS (frame check sequence). |
| • FCS-16 | Frame check sequencing using 16 bits |
| • FCS-32 | Frame check sequencing using 32 bits |
| • NONE | No frame check sequence |

| | |
|---|---|
| <AUTOTHGFPBUF> | The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <FILTER> | The parameter type is GFP_FILTER, which is the filter feature in GFP. |
| • INGRESS | Activate filter feature on the ingress port. |
| • NONE | Turn off filter feature. |

# 11.27 ED-HDLC

(Cisco ONS 15454 and ONS 15600) The Edit High-Level Data Link Control (ED-HDLC) command edits HDLC-related attributes for HDLC-encapsulated payloads.

**Usage Guidelines**

None

**Category**

Ports

**Security**

Provisioning

**Input Format**

ED-HDLC:[<TID>]:<SRC>:<CTAG>[:::FCS=<FCS>];

**Input Example**

ED-HDLC:PETALUMA:VFAC-SLOT-PORT:CTAG:::FCS=FCS-16;

**Input Parameters**

| | |
|---|---|
| <SRC> | Access identifier from the "25.15 FACILITY" section on page 25-35. The ONS 15600 ASAP card uses the VFAC AID. |
| <FCS> | Payload frame check sequence. The parameter type is FCS (frame check sequence). |
| • FCS-16 | Frame check sequence using 16 bits |
| • FCS-32 | Frame check sequence using 32 bits |
| • NONE | No frame check sequence |

# 11.28 ED-L2-ETH

(Cisco ONS 15454, ONS 15310-CL, and ONS 15310-MA) The Edit Layer 2 Ethernet (ED-L2-ETH) command edits the layer 2 port information of GE-XP and 10GE-XP Ethernet cards.

**Usage Guidelines**

The default values for all optional parameters are NE default values, but these values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Category**

Ethernet

**Security**

Provisioning

**Input Format**

ED-ETH:[<TID>]:<AID>:<CTAG>:::[NIMODE=<NIMODE>],
[MACLEARNING=<MACLEARNING>],[INGRESSCOS=<INGRESSCOS>],
[ETHERCETYPE=<ETHERCETYPE>],[ETHERSTYPE=<ETHERSTYPE>],
[ALWMACADDR=<ALWMACADDR>],[INHMACADDR=<INHMACADDR>],[BPDU=<BPDU>],
[BRIDGESTATE=<BRIDGESTATE>],[QNQMODE=<QNQMODE>],
[TRNSPSVLAN=<TRNSPSVLAN>],[NAME=<NAME>],[CMDMDE=<CMDMDE>]:
[<PST>[,<SST>]];

**Input Example**

ED-L2-ETH:CISCO:ETH-1-1-1:123:::NIMODE=NNI,MACLEARNING=Y,INGRESSCOS=8,
ETHERCETYPE=8100,ETHERSTYPE=8100,
ALWMACADDR=aa-bb-cc-dd-ee-ff&zz-yy-ww-tt-ss-rr,,BPDU=Y,BRIDGESTATE=DISABLED,
QNQMODE=TRANSPARENT,TRNSPSVLAN=4096,NAME="Ethernet",
CMDMDE=FRCD:IS,AINS;

ED-L2-ETH:CISCO:ETH-1-1-1:123:::NIMODE=NNI,MACLEARNING=Y,INGRESSCOS=8,
ETHERCETYPE=8100,ETHERSTYPE=8100,INHMACADDR=aa-bb-cc-dd-ee-ff&zz-yy-ww-tt-ss-rr,,
BPDU=Y,BRIDGESTATE=DISABLED,QNQMODE=SELECTIVE,NAME="Ethernet",
CMDMDE=FRCD:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Ethernet AIDs are used to access L2 Ethernet ports. Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <NIMODE> | Identifies the Ethernet Network Interface Mode. |
| • NNI | (Default) Network-Network Interface Mode |
| • UNI | User-Network Interface Mode |
| <MACLEARNING> | MAC address learning mode. This activates the MAC address learning on the interface to avoid packet broadcasting. |
| • Y | Enables MAC learning |
| • N | Disable MAC learning |
| <INGRESSCOS> | Identifies the COS value set in the S-VLAN tag. |
| <ETHERCETYPE> | Identifies a customer foreseen Ethernet type. If the customer uses a non-standard Ethernet type, the incoming packets will be accepted only if the CE-VLAN Ethernet type matches this parameter. |

| | |
|---|---|
| <ETHERSTYPE> | Identifies a customer foreseen Ethernet type. If the customer uses a non-standard Ethernet type, the incoming packets will be accepted only if the CE-VLAN Ethernet type matches this parameter. |
| <ALWMACADDR> | Identifies the allowed MAC addresses filtered out by the L2 Ethernet port. Every single MAC address is in the format of aa-bb-cc-dd-ee-ff, where every digit is in a hexadecimal form. |
| <INHMACADDR> | Identifies the inhibited MAC addresses filtered out by the L2 Ethernet port. Every single MAC address is in the format of aa-bb-cc-dd-ee-ff, where every digit is in a hexadecimal form. |
| <BPDU> | BPDU (Bridge Protocol Data Unit) management mode; Drop/Passthrough BPDU tagged packets. |
| • Y | Enables the BPDU tag. |
| • N | Disables the BPDU tag. |
| <BRIDGESTATE> | Defines if the traffic is blocked on the port. |
| • Unknown | Unknown state |
| • Disabled | Disabled state |
| • Blocking | Blocking state |
| • Listening | Listening state |
| • Learning | Learning state |
| • Forwarding | Forwarding state |
| • Broken | Broken state |
| <QNQMODE> | This is used to represent the QinQ mode operations. |
| • Selective | The S-VLAN tag is added only on specified CE-VLANs. The other packets are dropped. |
| • Transparent | The S-VLAN tag is always performed where all packets having the S-VLAN-ID identified by TRNSPSVLAN parameter are allowed. |
| <TRNSPSVLAN> | VLAN identifier. A VLAN ID is a number between 1 and 4096. The value 0 is reserved for untagged VLANs. This identifier is used for customer VLAN IDs and service provider VLAN IDs. |
| <NAME> | (Optional) Name. NAME is a string. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.29 ED-LMP

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Link Management Protocol (ED-LMP) command edits the global LMP protocol attributes.

**Usage Guidelines**

This command is only available on platforms that support the LMP protocol.

**Category**

LMP

**Security**

Provisioning

**Input Format**

ED-LMP:[<TID>]::<CTAG>:::[ENABLED=<ENABLED>],[WDMEXT=<WDM>], [ROLE=<ROLE>], [LMPNODEID-<NODEID>][:];

**Input Example**

ED-LMP:PETALUMA::704:::ENABLED=Y,WDMEXT=Y,ROLE=PEER,LMPNODEID=198.133.219.25;

**Input Parameters**

| | |
|---|---|
| <ENABLED> | LMP protocol status. |
| • Y | The protocol is enabled. |
| • N | The protocol is disabled. |
| • <WDM> | Determines if the LMP wave division multiplexing (WDM) extensions are in effect. |
| • Y | The LMP WDM extensions are in effect. |
| • N | The LMP WDM extensions are not in effect. |
| • <ROLE> | The role the LMP protocol is configured to play. |
| • OLS | The LMP protocol is configured to respond as an optical line system (OLS). |

| | |
|---|---|
| • PEER | The LMP protocol is configured to respond as a peer node. |
| • <NODEID> | LMP node ID. NODEID is a stable IP address that is always reachable if there is any connectivity to it. The default LMP node ID value is the IP address of the node. |

# 11.30 ED-LMP-CTRL

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Link Management Protocol Control Channel (ED-LMP-CTRL) command edits the LMP control channels.

**Usage Guidelines**

This command is only available on nodes where the LMP protocol is available and has been enabled.

**Category**

LMP

**Security**

Provisioning

**Input Format**

ED-LMP-CTRL:[<TID>]:<SRC>:<CTAG>:::[LOCALPORT=<LOCALPORT>], [REMOTENE=<REMOTENE>],[REMOTEIP=<REMOTEIP>],[HELLO=<HELLO>], [HELLOMIN=<HELLOMIN>],[HELLOMAX=<HELLOMAX>],[DEAD=<DEAD>], [DEADMIN=<DEADMIN>], [DEADMAX=<DEADMAX>]:[<PST>][,<SST>];

**Input Example**

ED-LMP-CTRL:PETALUMA:CTRL-123:704:::LOCALPORT=FAC-1-1-1 ,REMOTENE=15.15.15.115,REMOTEIP=126.0.0.1,HELLO=500,HELLOMIN=300, HELLOMAX=5000,DEAD=12000,DEADMIN=2000,DEADMAX=20000:OOS,DSBLD;

**Input Parameters**

| | |
|---|---|
| <SRC> | The LMP control channel AID values. |
| • CTRL-ALL | Specifies all the control channels. |
| • CTRL-{1-4} | Specifies an individual control channel. |
| <LOCALPORT> | The pathway that the LMP control channel will use to send and receive messages. |
| <REMOTENE> | Remote IP address used by the far-end LMP control channel. |
| <REMOTEIP> | Remote IP address used by the LMP control channel to send and receive messages. |
| <HELLO> | The time interval in which the LMP protocol sends HELLO messages. |
| <HELLOMIN> | The minimum amount of time within which the LMP control channels can send out HELLO messages to the remote node. |
| <HELLOMAX> | The maximum amount of time that the LMP control channel can wait between HELLO messages. |

| | |
|---|---|
| <DEAD> | Time interval an LMP control channel will wait for a HELLO message from the remote side before listing the control channel as down. |
| <DEADMIN> | The minimum amount of time that an LMP control channel can wait before listing the control channel status as down. |
| <DEADMAX> | The maximum amount of time that the LMP control channel can wait before listing the control channel as down. |
| <PST> | Primary state. This parameter indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.31 ED-LMP-TLINK

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Link Management Protocol Traffic Engineering (TE) Link (ED-LMP-TLINK) command edits the LMP TE link.

**Usage Guidelines**

This command can only be used on nodes that have the LMP protocol available and enabled.

**Category**

LMP

**Security**

Provisioning

**Input Format**

ED-LMP-TLINK:[<TID>]:<SRC>:<CTAG>:::REMOTEID=<REMOTE_ID>, REMOTETE=<REMOTE_TELINK>, [MUXCAP=<MUXCAP>]:[<PST>[,<SST>]];

**Input Example**

ED-LMP-TLINK:PETALUMA:TLINK-123:704:::REMOTEID=15.15.15.115,REMOTETE=123, MUXCAP=LAMBDA:OOS,DSBLD;

**Input Parameters**

| | |
|---|---|
| <SRC> | LMP TE link AID values. |
| • TLINK-ALL | Specifies all the TE links. |
| • TLINK-{1-256} | Specifies an individual TE link. |
| <REMOTEID> | Remote node ID associated with the LMP TE link. |
| <REMOTETE> | Remote ID used by the far end LMP TE link. |
| <MUXCAP> | The muxponder capability of the LMP TE link. |
| • PKTSWITCH1 | Packet Switching 1 |
| • PKTSWITCH2 | Packet Switching 2 |
| • PKTSWITCH3 | Packet Switching 3 |
| • PKTSWITCH4 | Packet Switching 4 |
| • LAYER2 | Layer 2 switching |
| • TDM | Time-division multiplexing (TDM) switching |
| • LAMBDA | Lambda switching |
| • FIBER | Fiber switching |
| <PST> | Primary state. This parameter indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.32 ED-LMP-DLINK

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Link Management Protocol Data Link (ED-LMP-DLINK) command edits the LMP data link.

**Usage Guidelines**

This command can only be used on nodes that have the LMP protocol available and enabled.

**Category** LMP

**Security** Provisioning

**Input Format** ED-LMP-DLINK:[<TID>]:<SRC>:<CTAG>:::[LINKTYPE=<LINKTYPE>],TELINK=<TELINK>, REMOTEID=<REMOTEID>;

**Input Example** ED-LMP-DLINK:PETALUMA:FAC-14-1-1:704:::LINKTYPE=PORT,TELINK=TLNK-45, REMOTEID=646631;

**Input Parameters**

| | |
|---|---|
| <SRC> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <LINKTYPE> | The type of LMP data link. |
| • PORT | Port data link |
| • COMPONENT | Component data link |
| <TELINK> | Used to map LMP data links to LMP TE links. |
| <REMOTEID> | The remote LMP data link ID. |

# 11.33 ED-LNK

(Cisco ONS 15454) The Edit Link (ED-LNK) command edits an optical link state.

**Usage Guidelines** The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Categories** DWDM

**Security** Provisioning

**Input Format** ED-LNK:[<TID>]:<FROM>,<TO>:<CTAG>:::[CMDMDE=<CMDMDE>]: [<PST>[,<SST>]];

**Input Example** ED-LNK:PENNGROVE:BAND-6-1-TX,BAND-13-1-RX:114:::CMDMDE=CMDMDE: IS,AINS;

**Input Parameters**

| | |
|---|---|
| <FROM> | Identifier at one end of the optical link from the "25.4 BAND" section on page 25-17. |
| <TO> | Identifier at the other end of the optical link from the "25.4 BAND" section on page 25-17. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state.<br>**Note** PST is not supported for optical channel (OCH) provisioning.<br>The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state.<br>**Note** SST is not supported for OCH provisioning.<br>The parameter type is SST, which 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 |

# 11.34 ED-LNKTERM

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Provisionable Patchcord Termination (ED-LNKTERM) command edits the attributes of a provisionable patchcord that has already been created. Only the remote end attributes (REMOTENODE and REMOTELNKTERMID) can be edited.

**Usage Guidelines**

- No two provisionable patchcord terminations on a node can have the same remote end link termination information. An attempt to modify an existing provisionable patchcord termination while not following this restriction will lead to an error message being responsed.
- If the provisionable patchcord termination does not exist, an error message will be responsed.
- This command does not accept multiple and ALL AIDs.
- REMOTENODE is a string with a maximum length of 20 characters.

**Category**

Provisionable Patchcords

**Security**

Provisioning

**Input Format**

ED-LNKTERM:[<TID>]:<AID>:<CTAG>:::[REMOTENODE=<REMOTENODE>], [REMOTELNKTERMID=<REMOTELNKTERMID>];

**Input Example**

ED-LNKTERM::LNKTERM-1:CTAG:::REMOTENODE=172.20.208.226, REMOTELNKTERMID=25;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.19 LNKTERM" section on page 25-42. Indicates a link (provisionable patchcord) termination on the local node. |
| <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. REMOTENODE is a 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 the existing value. |

# 11.35 ED-NE-GEN

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Network Element General (ED-NE-GEN) command edits the node attributes of the NE.

**Usage Guidelines**

- The node name can be a maximum of 20 characters. If the entered name exceeds 20 characters, an IPNV (Node Name Too Long) error message is returned.
- An existing NTP timing source can be removed by setting the address to 0.0.0.0.
- The maximum length of IPADDR and DEFRTR is 20 characters. The default value is the local IP address and default router.

- The maximum length of IPMASK is 18 characters. The default is the mask of the local IP address.
- ETHIPADDR and ETHIPMASK are disabled in this command. ETHIPADDR and ETHIPMASK are used to show the Ethernet interface address and mask. Both default to the nodes' IP address and masks.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Caution** Changing the IPADDR, IPMASK, or IIOPPORT will cause a reset of the controller card.

**Category** System

**Security** Superuser

**Input Format**

ED-NE-GEN:[<TID>]::<CTAG>:::[NAME=<NAME>],[IPADDR=<IPADDR>],
[IPMASK=<IPMASK>],[DEFRTR=<DEFRTR>],[IIOPPORT=<IIOPPORT>],
[NTP=<NTP>],[SUPPRESSIP=<SUPPRESSIP>],[MODE=<MODE>];

**Input Example**

ED-NE-GEN:PETALUMA::123:::NAME=NODENAME,IPADDR=192.168.100.52,
IPMASK=255.255.255.0,DEFRTR=192.168.100.1,IIOPPORT=57790,
NTP=192.168.100.52,SUPPRESSIP=NO,MODE=SINGLESHELF;

**Input Parameters**

| | |
|---|---|
| <NAME> | Node name. NAME is a string. Defaults to NULL. |
| <IPADDR> | Node IP address. IPADDR is a string. |
| <IPMASK> | Node IP mask. IPMASK is a string. |
| <DEFRTR> | Node default router. DEFRTR is a string. |
| <IIOPPORT> | Node IIOP port. IIOPPORT is an integer. Defaults to 57790. |
| <NTP> | Node NTP timing origin address. NTP is a string. Defaults to 0.0.0.0. |
| <SUPPRESSIP> | Parameter type is YES_NO, which indicates 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 |
| <MODE> | (Optional) Indicates the AID mode to access shelf identifier objects. Defaults to SINGLESHELF. This field is always set to MULTISHELF in the case of DWDM nodes with more than one shelf managed. Parameter type is SHELF_MODE which is the NE mode. |

| | |
|---|---|
| • SINGLESHELF | The NE contains only one shelf and the AID representation does not consider the shelf identifier for command requests/response and autonomous reports. |
| • MULTISHELF | The AID representation considers the shelf identifier for command requests/response and autonomous reports. This means the NE has more than one shelf configured or the user wants to use the new AID style. |
| • MULTISHELFETH | The AID representation considers the shelf identifier for command requests/response and autonomous reports. This means the NE has more than one shelf configured or the user wants to use the new AID style. The shelves are connected by means of an external Ethernet switch. |

# 11.36 ED-NE-PATH

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Network Element Path (ED-NE-PATH) command edits the path attributes of the NE.

**Usage Guidelines**

The default value for an optional parameter is the NE default value.

**Category**

System

**Security**

Provisioning

**Input Format**

ED-NE-PATH:[<TID>]::<CTAG>:::[PDIP=<PDIP>],[XCMODE=<XCMODE>];

**Input Example**

ED-NE-PATH:::CTAG:::PDIP=Y,XCMODE=MIXED;

**Input Parameters**

| | |
|---|---|
| <PDIP> | Flag used to indicate whether PDI-P should be generated on the outgoing VT structured STSs. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <XCMODE> | Cross-connect mode. The parameter type is XCMODE, which is applicable only to a node with cross-connect cards (XC-VXC-10G or XC-VXC-2.5G, for example) that support cross-connect mode change. |
| • MIXED | Both VT1 and VT2 cross-connects can be provisioned on the node. |
| • VT1 | Only VT1 cross-connects can be provisioned on the node. |
| • VT2 | Only VT2 cross-connects can be provisioned on the node. |

# 11.37 ED-NE-SYNCN

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Network Element Synchronization (ED-NE-SYNCN) command edits the synchronization attributes of the NE.

## Usage Guidelines

The existing external and line modes have the same functionality in all ONS 15454 4.x and 5.x releases:

- External mode: The node derives its timing from the BITS inputs.
- Line mode: The node derives its timing from the SONET line(s).
- Mixed mode: The node derives its timing from the BITS input or SONET lines.

**Note** Although mixed mode timing is supported in this release, it is not recommended. Refer to the *Cisco ONS SONET TL1 Reference Guide* for more information.

## Category

Synchronization

## Security

Provisioning

## Input Format

ED-NE-SYNCN:[<TID>]::<CTAG>:::[TMMD=<TMMD>],[SSMGEN=<SSMGEN>],[QRES=<QRES>],[RVRTV=<RVRTV>],[RVTM=<RVTM>];

ED-NE-SYNCN:[<TID>]::<CTAG>:::[TMMD=<TMMD>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],[SYSTMN=<SYSTMN>];

## Input Example

ED-NE-SYNCN:PETALUMA::123:::TMMD=LINE,SSMGEN=GEN1,QRES=ABOVE-PRS,RVRTV=Y,RVTM=8.0,SYSTMN=SONET;

ED-NE-SYNCN:PETALUMA::123:::TMMD=LINE,RVRTV=Y,RVTM=8.0,SYSTMN=SONET;

## Input Parameters

| | |
|---|---|
| <AID> | The node or shelf access identifier from the "25.24 SHELF" section on page 25-44. If omitted it addresses the node or first shelf of the node. Must not be null. |
| <TMMD> | Timing mode. A null value is equivalent to ALL. Defaults to EXTERNAL. The parameter type is TIMING_MODE, which is the timing mode for the current node. |
| • EXTERNAL | The node derives its clock from the BITS input. |
| • LINE | The node derives its clock from the SONET lines. |
| • MIXED | The node derives its clock from the mixed timing mode. |
| <SSMGEN> | Synchronization status message set. Defaults to GEN1. A null value is equivalent to ALL. The default is ABOVE-STU. The parameter type is SYNC_GENERATION (synchronization status message set generation). |

| | |
|---|---|
| • GEN1 | First generation SSM set |
| • GEN2 | Second generation SSM set |
| <QRES> | Quality of the RES. A null value is equivalent to ALL. Defaults to DUS. The parameter type is SYNC_QUALITY_LEVEL, which is the network synchronization quality level. |
| • ABOVE-PRS | Better than primary reference source. Valid setting for Generation-1 and Generation-2 SSM Set. |
| • ABOVE-SMC | Between SMC and ST3. Valid setting for Generation-1 and Generation-2 SSM Set. |
| • ABOVE-ST2 | Between ST2 and STU. Valid setting for Generation-1 and Generation-2 SSM Set. |
| • ABOVE-ST3 | For Generation-1 SSM set, between ST3 and ST2. For Generation-2 SSM set, between ST3 and ST3E. |
| • ABOVE-ST3E | Between ST3E and TNC. Valid setting only for Generation-2 SSM set. |
| • ABOVE-ST4 | Between ST4 and ST3. Valid setting for Generation-1 and Generation-2 SSM Set. |
| • ABOVE-STU | Between STU and PRS. Valid setting for Generation-1 and Generation-2 SSM Set. This is default setting. |
| • ABOVE-TNC | Between TNC and ST2. Valid setting only for Generation-2 SSM set. |
| • BELOW-ST4 | Below ST4 but still usable. Valid setting for Generation-1 and Generation-2 SSM Set. |
| • SAME-AS-DUS | Disable the RES message by equating it to DUS. Valid setting for Generation-1 and Generation-2 SSM Set. |
| <RVRTV> | Revertive mode. The value Y indicates that protection switching system reverts service to the original line after restoration. The value N indicates that 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. A null value is equivalent to ALL. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Does not revert service to original line after restoration. |
| • Y | Reverts service to original line after restoration. |
| <RVTM> | Revertive time. A null value is equivalent to ALL. The parameter type is REVERTIVE_TIME (revertive time). |
| • 0.5 to 12.0 | Revertive time is 0.5 to 12.0 minutes. |
| <SYSTMN> | (ONS 15454 only) Identifies the system timing standard used by the node. |
| • SONET | SONET timing standard |
| • SDH | SDH timing standard |

# 11.38 ED-OCH

(Cisco ONS 15454) The Edit Optical Channel (ED-OCH) command edits the attributes (service parameters) and state of an OCH facility. Refer to the *Cisco ONS SONET TL1 Reference Guide* for specific card provisioning rules.

**Usage Guidelines**

Primary=OOS and secondary=AINS states do not apply to Ethernet mode.

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-OCH:[<TID>]:<AID>:<CTAG>:::[EXPWLEN=<EXPWLEN>],[NAME=<PORTNAME>],[GCC=<GCC>],[GCCRATE=<GCCRATE>],[OSDBER=<OSDBER>],[DWRAP=<DWRAP>],[FEC=<FEC>],[PAYLOADMAP=<PAYLOADMAP>],[SOAK=<SOAK>],[CMDMDE=<CMDMDE>],[LOSSB=<LOSSB>]:[<PST>[,<SST>]];

**Input Example**

ED-OCH:CISCO:CHAN-6-2:114:::EXPWLEN=1530.32,NAME="NYLINE",GCC=Y,GCCRATE=192K,OSDBER=1E-6,DWRAP=Y,FEC=STD,PAYLOADMAP=ASYNCH,SOAK=10,CMDMDE=FRCD:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.8 CHANNEL" section on page 25-20. |
| <EXPWLEN> | (Optional) Optical wavelength for this port. Applicable only to the following types of cards: optical service channel cards, optical amplifier cards, dispersion compensation units, multiplexer and demultiplexer cards, and optical add/drop multiplexing (OADM) cards. The parameter type is OPTICAL_WLEN, which is the optical wavelength. |
| • 1310 | Wavelength 1310 |
| • 1470 | Wavelength 1470 |
| • 1490 | Wavelength 1490 |
| • 1510 | Wavelength 1510 |
| • 1529.55 | Wavelength 1529.55 |
| • 1529.94 | Wavelength 1529.94 |
| • 1530 | Wavelength 1530 |
| • 1530.33 | Wavelength 1530.33 |
| • 1530.73 | Wavelength 1530.73 |
| • 1531.12 | Wavelength 1531.12 |
| • 1531.51 | Wavelength 1531.51 |

| | |
|---|---|
| • 1531.90 | Wavelength 1531.90 |
| • 1532.29 | Wavelength 1532.29 |
| • 1532.68 | Wavelength 1532.68 |
| • 1533.07 | Wavelength 1533.07 |
| • 1533.47 | Wavelength 1533.47 |
| • 1533.86 | Wavelength 1533.86 |
| • 1534.25 | Wavelength 1534.25 |
| • 1534.64 | Wavelength 1534.64 |
| • 1535.04 | Wavelength 1535.04 |
| • 1535.43 | Wavelength 1535.43 |
| • 1535.82 | Wavelength 1535.82 |
| • 1536.22 | Wavelength 1536.22 |
| • 1536.61 | Wavelength 1536.61 |
| • 1537 | Wavelength 1537 |
| • 1537.40 | Wavelength 1537.40 |
| • 1537.79 | Wavelength 1537.79 |
| • 1538.19 | Wavelength 1538.19 |
| • 1538.58 | Wavelength 1538.58 |
| • 1538.98 | Wavelength 1538.98 |
| • 1539.37 | Wavelength 1539.37 |
| • 1539.77 | Wavelength 1539.77 |
| • 1540.16 | Wavelength 1540.16 |
| • 1540.56 | Wavelength 1540.56 |
| • 1540.95 | Wavelength 1540.95 |
| • 1541.35 | Wavelength 1541.35 |
| • 1541.75 | Wavelength 1541.75 |
| • 1542.14 | Wavelength 1542.14 |
| • 1542.35 | Wavelength 1542.35 |
| • 1542.54 | Wavelength 1542.54 |
| • 1542.94 | Wavelength 1542.94 |
| • 1543.33 | Wavelength 1543.33 |
| • 1543.73 | Wavelength 1543.73 |
| • 1544.13 | Wavelength 1544.13 |
| • 1544.53 | Wavelength 1544.53 |
| • 1544.92 | Wavelength 1544.92 |
| • 1545.32 | Wavelength 1545.32 |
| • 1545.72 | Wavelength 1545.72 |
| • 1546.12 | Wavelength 1546.12 |
| • 1546.52 | Wavelength 1546.52 |
| • 1546.92 | Wavelength 1546.92 |
| • 1547.32 | Wavelength 1547.32 |

| | |
|---|---|
| • 1547.72 | Wavelength 1547.72 |
| • 1548.12 | Wavelength 1548.12 |
| • 1548.51 | Wavelength 1548.51 |
| • 1548.92 | Wavelength 1548.92 |
| • 1549.32 | Wavelength 1549.32 |
| • 1549.71 | Wavelength 1549.71 |
| • 1550 | Wavelength 1500 |
| • 1550.12 | Wavelength 1550.12 |
| • 1550.52 | Wavelength 1550.52 |
| • 1550.92 | Wavelength 1550.92 |
| • 1551.32 | Wavelength 1551.32 |
| • 1551.72 | Wavelength 1551.72 |
| • 1552.12 | Wavelength 1552.12 |
| • 1552.52 | Wavelength 1552.52 |
| • 1552.93 | Wavelength 1552.93 |
| • 1553.33 | Wavelength 1553.33 |
| • 1553.73 | Wavelength 1553.73 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.13 | Wavelength 1554.13 |
| • 1554.94 | Wavelength 1554.94 |
| • 1555.34 | Wavelength 1555.34 |
| • 1555.75 | Wavelength 1555.75 |
| • 1556.15 | Wavelength 1556.15 |
| • 1556.55 | Wavelength 1556.55 |
| • 1556.96 | Wavelength 1556.96 |
| • 1557.36 | Wavelength 1557.36 |
| • 1557.77 | Wavelength 1557.77 |
| • 1558.17 | Wavelength 1558.17 |
| • 1558.58 | Wavelength 1558.58 |
| • 1558.98 | Wavelength 1558.98 |
| • 1559.39 | Wavelength 1559.39 |
| • 1559.79 | Wavelength 1559.79 |
| • 1560.20 | Wavelength 1560.20 |
| • 1560.61 | Wavelength 1560.61 |
| • 1561.01 | Wavelength 1561.01 |
| • 1561.42 | Wavelength 1561.42 |
| • 1561.83 | Wavelength 1561.83 |
| • 1570 | Wavelength 1570 |
| • 1570.83 | Wavelength 1570.83 |
| • 1571.24 | Wavelength 1571.24 |
| • 1571.65 | Wavelength 1571.65 |

| | |
|---|---|
| • 1572.06 | Wavelength 1572.06 |
| • 1572.48 | Wavelength 1572.48 |
| • 1572.89 | Wavelength 1572.89 |
| • 1573.30 | Wavelength 1573.30 |
| • 1573.71 | Wavelength 1573.71 |
| • 1574.13 | Wavelength 1574.13 |
| • 1574.54 | Wavelength 1574.54 |
| • 1574.95 | Wavelength 1574.95 |
| • 1575.37 | Wavelength 1575.37 |
| • 1575.78 | Wavelength 1575.78 |
| • 1576.20 | Wavelength 1576.20 |
| • 1576.61 | Wavelength 1576.61 |
| • 1577.03 | Wavelength 1577.03 |
| • 1577.44 | Wavelength 1577.44 |
| • 1577.86 | Wavelength 1577.86 |
| • 1578.27 | Wavelength 1578.27 |
| • 1578.69 | Wavelength 1578.69 |
| • 1579.10 | Wavelength 1579.10 |
| • 1579.52 | Wavelength 1579.52 |
| • 1579.93 | Wavelength 1579.93 |
| • 1580.35 | Wavelength 1580.35 |
| • 1580.77 | Wavelength 1580.77 |
| • 1581.18 | Wavelength 1581.18 |
| • 1581.60 | Wavelength 1581.60 |
| • 1582.02 | Wavelength 1582.02 |
| • 1582.44 | Wavelength 1582.44 |
| • 1582.85 | Wavelength 1582.85 |
| • 1583.27 | Wavelength 1583.27 |
| • 1583.69 | Wavelength 1583.69 |
| • 1584.11 | Wavelength 1584.11 |
| • 1584.53 | Wavelength 1584.53 |
| • 1584.95 | Wavelength 1584.95 |
| • 1585.36 | Wavelength 1585.36 |
| • 1585.78 | Wavelength 1585.78 |
| • 1586.20 | Wavelength 1586.20 |
| • 1586.62 | Wavelength 1586.62 |
| • 1587.04 | Wavelength 1587.04 |
| • 1587.46 | Wavelength 1587.46 |
| • 1587.88 | Wavelength 1587.88 |
| • 1588.30 | Wavelength 1588.30 |
| • 1588.73 | Wavelength 1588.73 |

| | |
|---|---|
| • 1589.15 | Wavelength 1589.15 |
| • 1589.57 | Wavelength 1589.57 |
| • 1589.99 | Wavelength 1589.99 |
| • 1590 | Wavelength 1590 |
| • 1590.41 | Wavelength 1590.41 |
| • 1590.83 | Wavelength 1590.83 |
| • 1591.26 | Wavelength 1591.26 |
| • 1591.68 | Wavelength 1591.68 |
| • 1592.10 | Wavelength 1592.10 |
| • 1592.52 | Wavelength 1592.52 |
| • 1592.95 | Wavelength 1592.95 |
| • 1593.37 | Wavelength 1593.37 |
| • 1593.79 | Wavelength 1593.79 |
| • 1594.22 | Wavelength 1594.22 |
| • 1594.64 | Wavelength 1594.64 |
| • 1595.06 | Wavelength 1595.06 |
| • 1595.49 | Wavelength 1595.49 |
| • 1596.34 | Wavelength 1596.34 |
| • 1596.76 | Wavelength 1596.76 |
| • 1597.19 | Wavelength 1597.19 |
| • 1597.62 | Wavelength 1597.62 |
| • 1598.04 | Wavelength 1598.04 |
| • 1598.47 | Wavelength 1598.47 |
| • 1598.89 | Wavelength 1598.89 |
| • 1599.32 | Wavelength 1599.32 |
| • 1599.75 | Wavelength 1599.75 |
| • 1600.06 | Wavelength 1600.06 |
| • 1601.03 | Wavelength 1601.03 |
| • 1601.46 | Wavelength 1601.46 |
| • 1601.88 | Wavelength 1601.88 |
| • 1602.31 | Wavelength 1602.31 |
| • 1602.74 | Wavelength 1602.74 |
| • 1603.17 | Wavelength 1603.17 |
| • 1603.60 | Wavelength 1603.60 |
| • 1604.03 | Wavelength 1604.03 |
| • 1610 | Wavelength 1610 |
| • USE-TWL1 | Use Tunable Wavelength 1 |
| <PORTNAME> | (Optional) Port name. PORTNAME is a string. |
| <GCC> | Identifies the Generic communication channel (GCC) connection of the port. |
| • Y | GCC can be utilized |
| • N | GCC cannot be utilized |

| | |
|---|---|
| <GCCRATE> | (Optional) The data rate of the GCC traffic. The default is 192 Kbps. For MXP_2.5G_10G and TXP_MR_10G cards, this applies only to the DWDM port. The parameter type is GCCRATE, which is the data rate of the GCC traffic. |
| • 192K | 192 Kbps |
| • 576K | 576 Kbps |
| <OSDBER> | OTN SDBER. Can only be provisioned on the working port. Defaults to 1E-7<br><br>Parameter type is SD_BER—the threshold for declaring signal degrade on a facility or path |
| • 1E-5 | SDBER is 1E-5 |
| • 1E-6 | SDBER is 1E-6 |
| • 1E-7 | SDBER is 1E-7 |
| • 1E-8 | SDBER is 1E-8 |
| • 1E-9 | SDBER is 1E-9 |
| <DWRAP> | (Optional) The ITU-T G.709 monitoring digital wrapper. It is either on or off. The system default is ON. For MXP_2.5G_10G and TXP_MR_10G cards, this applies only to the DWDM port. The parameter type is ON_OFF (disable or enable an attribute). To enable ITU-T G.709 monitoring, there should be no GCC on the DWDM port and the payload (in which the card is configured) should not be UNFRAMED. To disable ITU-T G.709 monitoring, there should be no GCC on the DWDM port, the FEC should be turned to off, there should be no overhead circuit created on the DWDM port, and none of the client ports on the card should be part of a Y-cable protection group (muxponder only). |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <FEC> | (Optional) Forward error correction. It can be enabled only if ITU-T G.709 monitoring is turned ON. It is either off or enabled in standard or enhanced mode. The system default is standard FEC enabled. The FEC level PM and thresholds apply if the FEC is turned ON. The parameter type is FEC_MODE, which specifies the type of forward error correction. |
| • ENH | Enhanced FEC is enabled. |
| • OFF | FEC is disabled. |
| • STD | Standard FEC is enabled. |
| <PAYLOADMAP> | (Optional) The type of payload mapping. It can be enabled only if ITU-T G.709 monitoring is turned ON and FEC is enabled. The parameter type is PAYLOAD_MAPPING, which is the payload mapping mode. |
| • ASYNCH | Asynchronous mapping mode |
| • ODU | ODU multiplex structure mode |
| • SYNCH | Synchronous mapping mode |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |

| | |
|---|---|
| <SOAK> | (Optional) Locked-AutomaticInService to Unlocked transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <CMDMDE> | (Optional) The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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. |
| <LOSSB> | The parameter type is REACH which indicates the reach values. |
| • AUTOPROV | Autoprovisioning |
| • CX | Reach CX |
| • DX | Reach DX |
| • HX | Reach HX |
| • I1 | Reach I1 |
| • IR-1 | Reach IR-1 |
| • IR-2 | Reach IR-2 |
| • L1 | Reach L1 |
| • L2 | Reach L2 |
| • L3 | Reach L3 |
| • LR-1 | Reach LR-1 |
| • LR-2 | Reach LR-2 |
| • LR-3 | Reach LR-3 |
| • LX | Reach LX |
| • S1 | Reach S1 |
| • S2 | Reach S2 |
| • SR | Reach SR |
| • SR-1 | Reach SR-1 |
| • SX | Reach SX |
| • T | Reach T |
| • VX | Reach VX |
| • ZX | Reach ZX |
| <PST> | (Optional) 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> | (Optional) 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 |

# 11.39 ED-OCHCC

(Cisco ONS 15454) The Edit Optical Channel Client Connection (ED-OCHCC) command edits the OCH client connection.

## Usage Guidelines

- The fields after CTAG (trailing colons) are optional.
- This command does not support multiple editing of OCH client connection provisioning.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

## Category

DWDM

## Security

Provisioning

## Input Format

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

## Input Example

ED-OCHCC:VA454-22:FAC-2-1-1:116:::CKTID=OCHCC,CMDMDE=FRCD:OOS,DSBLD;

## Input Parameters

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <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 (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. The default is IS. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which provides additional information pertaining to PST and PSTQ. The default is AINS. |
| • 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 |

# 11.40 ED-OCHNC

(Cisco ONS 15454) The Edit Optical Channel Network Connection (ED-OCHNC) command edits the OCH network connection.

**Usage Guidelines**

- The fields after CTAG (trailing colons) are optional.
- This command does not support multiple editing of wavelength connection provisioning.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to obtain the current value.

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-OCHNC:[<TID>]:<SRC>,<DST>:<CTAG>:::[CKTID=<CKTID>],[CMDMDE=<CMDMDE>],[WLOPWR=<WLOPWR>],[VOAATTN=<VOAATTN>]:[<PST>[,<SST>]];

**Input Example**

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

**Input Parameters**

| | |
|---|---|
| <SRC> | Source access identifier from the "25.8 CHANNEL" section on page 25-20. In two-way wavelength connection sources, both directions need to be indicated. |
| <DST> | Destination access identifier from the "25.18 LINEWL" section on page 25-40. In two-way wavelength connection sources, both directions need to be indicated. |
| <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 (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <WLOPWR> | The value of calibrated output power that the VOA is going to set as a result of its attenuation. WLOPWR is a float. |
| <VOAATTN> | The value of calibrated attenuation for the VOA expressed in dBm. The range is 0.0 to +30.0. VOAATTN is a float. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. The default is IS. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which provides additional information pertaining to PST and PSTQ. The default is AINS. |
| • 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 |

# 11.41 ED-OMS

(Cisco ONS 15454) The Edit Optical Multiplex Section (ED-OMS) command edits the attributes (service parameters) and state of an OMS facility.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-OMS:[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[EXPBAND=<EXPBAND>], [VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],[CALOPWR=<CALOPWR>], [CHPOWER=<CHPOWER>],[NAME=<NAME>],[SOAK=<SOAK>], [CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-OMS:PENNGROVE:BAND-6-1:114:::RDIRN=W-E,EXPBAND=1530.32-1532.68, VOAATTN=2.5,VOAPWR=7.5,CALOPWR=0.0,CHPOWER=2.0,NAME="OMS PORT", SOAK=8,CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.4 BAND" section on page 25-17. |
| <RDIRN> | Ring directionality of the optical line. The parameter type is RDIRN_MODE, which is the optical ring directionality. |
| • E-W | The direction of the signal is from east to west (clockwise). |
| • W-E | The direction of the signal is from west to east (counterclockwise). |
| <EXPBAND> | The expected value of the optical band for this port. The parameter type is OPTICAL_BAND (optical band). |
| • 1530.33 to 1532.68 | Band 1 |
| • 1534.25 to 1536.61 | Band 2 |
| • 1538.19 to 1540.56 | Band 3 |
| • 1542.14 to 1544.53 | Band 4 |
| • 1546.12 to 1548.51 | Band 5 |
| • 1550.12 to 1552.52 | Band 6 |
| • 1554.13 to 1556.55 | Band 7 |
| • 1558.17 to 1560.61 | Band 8 |

| | |
|---|---|
| • USE-DEFAULT | This band is not yet configured/retrieved from unit. |
| <VOAATTN> | The value of calibrated attenuation for the VOA expressed in dBm. The range is 0.0 to +30.0. VOAATTN is a float. |
| <VOAPWR> | The value of calibrated output power that the VOA is going to set as a result of its attenuation. VOAPWR is a float. |
| <CALOPWR> | The value of the calibrated optical power expected for the line added to the calculated value which equals the total expected output power. Expressed in dBm. Defaults to 0 dBm. CALOPWR is a float. |
| <CHPOWER> | The value of per-channel optical power. Float expressed in dBm. The parameter type is REVERTIVE_TIME (revertive time) |
| • 0.5 to 12.0 | Revertive time is 0.5 to 12.0 minutes. |
| <NAME> | Port name. NAME is a string. |
| <SOAK> | SOAK is an integer. Defaults to 8. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.42 ED-OTS

(Cisco ONS 15454) The Edit Optical Transport Section (ED-OTS) command edits the attributes (service parameters) and state of an OTS facility.

**Usage Guidelines** None

**Category** DWDM

**Security** Provisioning

**Input Format**

ED-OTS:[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[VOAATTN=<VOAATTN>],
[VOAPWR=<VOAPWR>],[OFFSET=<OFFSET>],[CALTILT=<CALTILT>],[OSRI=<OSRI>],
[AMPLMODE=<AMPLMODE>],[CHPOWER=<CHPOWER>],[EXPGAIN=<EXPGAIN>],
[NAME=<NAME>],[SOAK=<SOAK>],[CMDMDE=<CMDMDE>]:<PST>,[<SST>];

**Input Example**

ED-OTS:PENNGROVE:LINE-6-1:114:::RDIRN=W-E,VOAATTN=5.0,VOAPWR=10.0,OFFSET=0.0,
CALTILT=0.0,OSRI=N,AMPLMODE=GAIN,CHPOWER=10.0,EXPGAIN=-5.0,
NAME="OTS PORT",SOAK=8,CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.17 LINE" section on page 25-39. |
| <RDIRN> | Ring directionality of the optical line. The parameter type is RDIRN_MODE, which is the optical ring directionality. |
| • E-W | The direction of the signal is from east to west (clockwise). |
| • W-E | The direction of the signal is from west to east (counterclockwise). |
| <VOAATTN> | The value of calibrated attenuation for the VOA expressed in dBm. The range is 0.0 to +30.0. VOAATTN is a float. |
| <VOAPWR> | The value of calibrated output power that the VOA is going to set as a result of its attenuation. VOAPWR is a float. |
| <OFFSET> | The calibration value of the optical power added to the calculated reference value. Defaults to 0 dBm. OFFSET is a float. |
| <CALTILT> | (Optional) The amplifier calibration tilt offset to be added to the calculated reference value. Defaults to 0 dBm. CALTILT is a float. |
| <OSRI> | (Optional) Optical safety remote interlock (OSRI) is enabled or disabled. Present only on a port where the OSRI is supported. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <AMPLMODE> | The optical amplification control mode. The parameter type is AMPL_MODE, which defines the amplifier control mode. |
| • GAIN | The amplifier always maintains a fixed gain. |
| • POWER | The amplifier maintains the output power to a fixed value. |
| <CHPOWER> | The per-channel optical power. CHPOWER is a float. |
| <EXPGAIN> | The gain expected value to be reached from an amplifier when the node is part of a DWDM access network. EXPGAIN is a float. |
| <NAME> | The name of the port. NAME is a string. |

| | |
|---|---|
| <SOAK> | SOAK is an integer. It defaults to 8. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.43 ED-PID

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Password (ED-PID) command allows a user to change his or her own password.

## Usage Guidelines

- 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 Cisco Transport Controller (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 password will not appear in the TL1 log on the NE.
- For the ED-PID command:

  ED-PID:[TID]:<UID>:[CTAG]::<OLDPID>,<NEWPID>;

The syntax of OLDPID is not checked. The NEWPID is required to follow Telcordia standards (for example, 10 characters maximum including 1 letter, 1 number, and any one of the following characters: #, %, or +). The OLDPID must match what is in the database.

You must use the ED-USER-SECU command to change the default password for the CISCO15 superuser.

- The ED-PID command cannot be used to change the empty password to a valid password.

**Category** Security

**Security** Retrieve

**Input Format** ED-PID:[<TID>]:<UID>:<CTAG>::<OLDPID>,<NEWPID>;

**Input Example** ED-PID:PETALUMA:UID:123::OLDPWD,NEWPWD;

**Input Parameters**

| | |
|---|---|
| <UID> | User identifier. Up to 10 alphanumeric characters. UID is a string. |
| <OLDPID> | The user's old password. Up to 10 alphanumeric characters. Passwords are encrypted and will appear as asterisks (*). OLDPID is a string. |
| <NEWPID> | The user's new password. Up to 10 alphanumeric characters. Passwords are encrypted and will appear as asterisks (*). NEWPID is a string. |

# 11.44 ED-POS

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Packet-Over-SONET (ED-POS) command edits the back-end port information for the Ethernet card when the back-end port is working in POS mode. The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use the retrieve command to obtain the current value. ED-POS cannot set ENCAP and PST/SST.

**Usage Guidelines** This command is supported for the ONS 15454 CE-100T-8 and CE-1000-4 cards, the ONS 15310-CL ML-100T-8 and CE-100T-8 cards, and the ONS 15600 ASAP card.

**Category** Ports

**Security** Provisioning

**Input Format**

ED-POS:[<TID>]:<AID>:<CTAG>:::[ENCAP=<ENCAP>],[NAME=<NAME>],[CMDMDE=<CMDMDE>],[SUPPRESS=<SUPPRESS>],[SOAK=<SOAK>]:[<PST>[,<SST>]];

**Input Example**

ED-POS:PETALUMA:VFAC-2-0:123:::ENCAP=HDLC,NAME=NAME,CMDMDE=CMDMDE,SUPPRESS=Y,SOAK=32:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <ENCAP> | Encapsulation. The parameter type is ENCAP, which is the frame encapsulation type. |
| • GFP_F | GFP frame mode |
| • GFP_T | GFP transparent mode |
| • HDLC | HDLC frame mode |
| • HDLC_LEX | HDLC LAN extension frame mode |
| • HDLC_X86 | HDLC X.86 frame mode |
| <NAME> | Port name. NAME is a string. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <SUPPRESS> | Pre-service alarm flag for data ports. This parameter is supported on ML-series cards only. |
| • Y | Enable suppress. |
| • N | Disable suppress. Default is Off. |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15 minute intervals, so a value of 4 translates to a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.45 ED-PROTOCOL

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Protocol (ED-PROTOCOL) command is used to enable/disable a protocol/service that is supported in the NE. Valid protocols include shell/file system access (SHELL), EMS, TL1, and Simple Network Management Protocol (SNMP).

**Usage Guidelines**

- If the AID is TL1, the command will be denied because TL1 users are not allowed to change the setting for TL1 protocol.
- If the AID is SNMP, the SECURE PROTOCOLSTAT is not supported. SNMP can only be enabled or disabled. To enable SNMP, set PROTOCOLSTAT to UNSECURE.

**Category**

Security

**Security**

Superuser

**Input Format**

ED-PROTOCOL:[<TID>]:<AID>:<CTAG>::<PROTSTAT>;

**Input Example**

ED-PROTOCOL:CISCONODE:EMS:123::SECURE;

**Input Parameters**

| | |
|---|---|
| <AID> | The protocol/service to which the command pertains. The parameter type is PROTOCOLAID, which is the AID for the protocol/service. |
| • EMS | CTC/CTM protocol/service |
| • SHELL | Shell/file system access protocol |
| • SNMP | SNMP protocol/service |
| • TL1 | TL1 protocol service |
| <PROTSTAT> | Identifies the status of the protocol/service. The parameter type is PROTOCOLSTAT, which is the status of the protocol. |

| | |
|---|---|
| • DISABLED | The protocol cannot be used. |
| • SECURE | The protocol is enabled and communication using the protocol are sure, for example, through Secure Shell Protocol (SSH). Not applicable for SNMP protocols. |
| • UNSECURE | The protocol is enabled but communication is not secure, for example, through Telnet. |

# 11.46 ED-QNQ-ETH

(Cisco ONS 15454) The Edit ETH QinQ Table (ED-QNQ-ETH) command modifies the IEEE 802.1Q tunneling (QinQ) relationship between the customer VLAN (CE-VLAN) and the service provider VLAN (S-VLAN) for Gigabit Ethernet uniport provisioning associated to an L2 Ethernet port.

**Usage Guidelines**

- The default values for all optional parameters are NE default values, but these values might not be the current value for a parameter. Use a retrieve command to obtain the current value.
- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- The ALL AID is invalid for this command.

**Category**

Ethernet

**Security**

Provisioning

**Input Format**

ED-QNQ-ETH:[<TID>]:<AID>:<CTAG>::<FIRSTCEVLAN_ID>,<LASTCEVLANID>, <SVLANID>:[RULE=<RULE>][:];

**Input Example**

ED-QNQ-ETH:PETALUMA:ETH-1-1-1:1::10,11,100:RULE=ADD;

**Input Parameters**

| | |
|---|---|
| <AID> | Ethernet AIDs are used to access L2 Ethernet ports. Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <FIRSTCEVLANID> | VLAN identifier. A VLAN ID is a number between 1 and 4096. The value 0 is reserved for untagged VLANs. This identifier is used for customer VLAN IDs and service provider VLAN IDs. |
| <LASTCEVLANID> | VLAN identifier. A VLAN ID is a number between 1 and 4096. The value 0 is reserved for untagged VLANs. This identifier is used for customer VLAN IDs and service provider VLAN IDs. |

| | |
|---|---|
| <SVLANID> | VLAN identifier. A VLAN ID is a number between 1 and 4096. The value 0 is reserved for untagged VLANs. This identifier is used for customer VLAN IDs and service provider VLAN IDs. |
| <RULE> | Used to represent the rules allowed for VLAN tagging operations. |
| • ADD | The service provider VLAN tag is added to the customer VLAN tag. |
| • XLTE | The service provider VLAN tag replaces the CE-VLAN tag (single Q). |

# 11.47 ED-ROLL-<MOD_PATH>

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Roll for STS1, STS12C, STS192C, STS24C, STS3C, STS48C, STS6C, STS9C, VT1, or VT2 (ED-ROLL-<MOD_PATH>) command forces a rolling operation, which attempts to force a valid signal to complete the rolling operation.

**Usage Guidelines**

See Table 27-1 on page 27-1 for supported modifiers by platform.

**Note** STS18C and STS36C are not supported for this command in this release.

**Category**

Bridge and Roll

**Security**

Provisioning

**Input Format**

ED-ROLL-<MOD_PATH>:[<TID>]:<FROM>,<TO>:<CTAG>:::[CMDMDE=<CMDMDE>];

**Input Example**

ED-ROLL-STS1:PETALUMA:STS-1-1-1,STS-2-1-1:1:::CMDMDE=FRCD;

| Input Parameters | | |
|---|---|---|
| | <FROM> | Source access identifier from the "25.11 CrossConnectId1" section on page 25-26. 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 not 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 access identifier from the "25.11 CrossConnectId1" section on page 25-26. 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 not 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. |
| | <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states.<br>**Note** CMDMDE can only go from NORM to FRCD (cannot go from FRCD to NORM). CMDMDE cannot be set to NORM using this command. |
| | • 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 might make the command fail. |

# 11.48 ED-SLV-WDMANS

(Cisco ONS 15454) The Edit Span Loss Verification Wavelength Division Multiplexing Automatic Node Set-Up (ED-SLV-WMANS) command edits the expected span loss verification.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Maintenance

**Input Format**

ED-SLV-WDMANS:[<TID>]:<AID>:<CTAG>:::[HIGHSLVEXP=<HIGHSLVEXP>], [LOWSLVEXP=<LOWSLVEXP>];

**Input Example** ED-SLV-WDMANS:VA454-22:WDMANS-E:116:::HIGHSLVEXP=10.0,LOWSLVEXP=5.0;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.32 WDMANS" section on page 25-54. |
| <HIGHSLVEXP> | The high range value of the expected span loss verification. HIGHSLVEXP is a float. |
| <LOWSLVEXP> | The low range value of the expected span loss verification. LOWSLVEXP is a float. |

# 11.49 ED-SYNCN

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Synchronization (ED-SYNCN) command edits the synchronization reference list used to determine the sources for the NE's reference clock and the BITS output clock. For each clock, up to three synchronization sources might be specified (for example, PRIMARY, SECOND, THIRD).To view or edit the system timing mode, use the RTRV-NE-SYNCN or ED-NE-SYNCN commands.

**Usage Guidelines** To retrieve/set the timing mode, SSM message set, or quality of RES information, use the RTRV-NE-SYNCN and ED-NE-SYNCN commands.

**Category** Synchronization

**Security** Provisioning

**Input Format** ED-SYNCN:[<TID>]:<AID>:<CTAG>:::[PRI=<PRI>],[SEC=<SEC>],[THIRD=<THIRD>][:];

**Input Example** ED-SYNCN:BOYES:SYNC-NE:112:::PRI=INTERNAL,SEC=INTERNAL,THIRD=INTERNAL;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.28 SYNC_REF" section on page 25-50. |
| <PRI> | Primary reference of the synchronization from the "25.27 SYN_SRC" section on page 25-49. |
| <SEC> | Secondary reference of the synchronization from the "25.27 SYN_SRC" section on page 25-49. |
| <THIRD> | Third reference of the synchronization from the"25.27 SYN_SRC" section on page 25-49. |

# 11.50 ED-T1

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Digital Signal Facility (ED-T1) command edits the attributes related to a DS1/T1 port.

**Usage Guidelines**

- The T1 facilities on the ONS 15310-CL are on the XTC/15310-CL-CTX card.
- This command is not allowed if the card is a protect card.
- If sending this command to edit TACC and any other attribute(s), and the port having the cross-connection, the Parameters Not Compatible error message will be returned.
- Editing the TACC using an ED-xxx command is only allowed when there is no circuit/cross-connection on the port and the port/VT does not have a TAP or TACC number. Otherwise, an error message (for example, VT in Use) will be returned.
- TACC creation will be denied on protect ports/cards.
- AUTO-PROV is not supported.
- The AISONLPBK and RETIME options are applicable only to the ONS 15310-CL and the DS1/E1-56 card on the ONS 15454.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to retrieve the current value.
- The parameters SYNCMAP, ADMSSM, VTMAP, and INHFELPBK are only supported on the DS1/E1-56 card on the ONS 15454.
- You cannot directly transition a facility from IS to OOS-MA,DSBLD service state. You can transition a facility to OOS-MA,DSBLD service state from any state except OOS-MA,MT. To transition a facility from OOS-MA,MT to OOS-MA,DSBLD service state, all the following conditions must be met:
  - The facility is not sourcing a synchronization clock
  - The facility's DCC is disabled
  - The facility is not part of a protection group
  - The facility is not supporting cross-connects
  - The facility is not using overhead connections or overhead terminations (such as express orderwire, local orderwire, or user data channels [UDCs])

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility from service (except for IS to OOS-MA,DSBLD transition) with no consideration for orderly interruption.

**Category** Ports

**Security** Provisioning

**Input Format**

ED-T1:[<TID>]:<AID>:<CTAG>:::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],
[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SFBER=<SFBER>],
[SDBER=<SDBER>],[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],
[RETIME=<RETIME>],[NAME=<NAME>],[MODE=<MODE>],[SYNCMAP=<SYNCMAP>],
[ADMSSM=<ADMSSM>],[VTMAP=<VTMAP>],[INHFELPBK=<INHFELPBK>],
[AISONLPBK=<AISONLPBK>],[CMDMDE=<CMDMDE>],
[AISVONAIS=<AISVONAIS>]:[<PST>[,<SST>]];

**Input Example**

ED-T1:PETALUMA:FAC-2-1:1223:::LINECDE=AMI,FMT=ESF,LBO=0-131,TACC=8,
TAPTYPE=SINGLE,SOAK=10,SFBER=1E-4,SDBER=1E-6,SYNCMSG=Y,SENDDUS=Y,
RETIME=Y,NAME="T1PORT",MODE=FDL,SYNCMAP=ASYNC,ADMSSM=STU,
VTMAP=GR253,INHFELPBK=N,AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE,
AISVONAIS=Y:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <LINECDE> | Line code. The parameter type is LINE_CODE. |
| • AMI | Line code value is AMI. |
| • B8ZS | Line code value is B8ZS. |
| <FMT> | Digital signal frame format. The parameter type is FRAME_FORMAT, which is the frame format for a T1 port. |
| • D4 | Frame format is D4. |
| • ESF | Frame format is ESF. |
| • UNFRAMED | Frame format is unframed. |
| <LBO> | Line build-out settings. The parameter type is LINE_BUILDOUT. |
| • 0–131 | Line build-out range is 0–131. |
| • 132–262 | Line build-out range is 132–262. |
| • 263–393 | Line build-out range is 263–393. |
| • 394–524 | Line build-out range is 394–524. |
| • 525–655 | Line build-out range is 525–655. |
| <TACC> | TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Default is N. TACC is an integer. |
| <TAPTYPE> | TAP type. Defaults to DUAL. The parameter type is TAPTYPE (test access point type). |
| • DUAL | Dual FAD |
| • SINGLE | Single FAD |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |

| | |
|---|---|
| <SFBER> | The port signal failure threshold. The parameter type is SF_BER, which is the threshold for declaring signal failure on a facility or path. |
| • 1E-3 | SFBER is 1E-3. |
| • 1E-4 | SFBER is 1E-4. |
| • 1E-5 | SFBER is 1E-5. |
| <SDBER> | Port signal degrade threshold. The parameter type is SD_BER, which is the threshold for declaring signal degrade on a facility or path. |
| • 1E-5 | SDBER is 1E-5. |
| • 1E-6 | SDBER is 1E-6. |
| • 1E-7 | SDBER is 1E-7. |
| • 1E-8 | SDBER is 1E-8. |
| • 1E-9 | SDBER is 1E-9. |
| <SYNCMSG> | Synchronization status messaging is enabled or disabled on the T1 facility.<br>**Note** For the ONS 15310-CL, SYNCMSG defaults to N. SYNCMSG is not supported on the ONS 15454.<br>The parameter type is YES_NO, which indicates 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 |
| <SENDDUS> | The facility will send the DUS value as the SSM for that facility.<br>**Note** For the ONS 15310-CL, SENDDUS is optional and defaults to N. SENDDUS is not supported on the ONS 15454.<br>The parameter type is YES_NO, which indicates 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 |
| <RETIME> | Indicates if retiming is needed.<br>**Note** For the ONS 15310-CL, RETIME is optional and defaults to N. RETIME is not supported on the ONS 15454.<br>The parameter type is YES_NO, which indicates 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 |
| <NAME> | Name. NAME is a string. |
| <MODE> | Mode. Default value is FDL. The parameter type is DS1MODE, which is the DS1 path mode of the DS3XM-12 card. |

| | |
|---|---|
| • ATT | Indicates that the DS1 path of the DS3XM-12 is in AT&T 54016 mode. |
| • FDL | Indicates that the DS1 path of the DS3XM-12 is in FDL T1-403 mode. |
| <SYNCMAP> | The synchronous mapping for the DS1 facility. Defaults to ASYNC. Only supported on ONS 15454. The parameter type is SYNCMAP (synchronous mapping type). |
| • ASYNC | Asynchronous |
| • BYTE | Mapping in byte |
| • JBYTE | Mapping in jbyte |
| <ADMSSM> | The administrative synchronization status message. Only supported on the ONS 15454. Defaults to STU. The parameter type is SYNC_CLOCK_REF_QUALITY_LEVEL, which is the clock source quality level. |
| • DUS | Do Not Use For Synchronization |
| • PRS | Primary Reference Source, Stratum 1 Traceable |
| • RES | Reserved For Network Synchronization Use |
| • SMC | SONET Minimum Clock Traceable |
| • ST2 | Stratum 2 Traceable |
| • ST3 | Stratum 3 Traceable |
| • ST3E | Stratum 3E Traceable |
| • ST4 | Stratum 4 Traceable |
| • STU | Synchronized, Traceability Unknown |
| • TNC | Transit Node Clock (2nd Generation Only) |
| <VTMAP> | The port to VT mapping type for that particular STS. Only supported on ONS 15454. Defaults to GR253. The parameter type is VTMAP (VT mapping). |
| • GR253 | Mapping based on Telcordia GR-253. |
| • INDUSTRY | Mapping based on industry standard. |
| <INHFELPBK> | Indicates whether far-end loopbacks are inhibited on the facility. Only supported on the ONS 15454. Defaults to N. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <AISONLPBK> | Defaults to AIS_ON_LPBK_ALL. The parameter type is AIS_ON_LPBK, which indicates if AIS is sent on a loopback. |
| • AIS_ONLPBK_FACILITY | AIS is sent on facility loopbacks. |
| • AIS_ON_LPBK_ALL | AIS is sent on all loopbacks. |
| • AIS_ON_LPBK_OFF | AIS is not sent on loopbacks. |
| • AIS_ON_LPBK_TERMINAL | AIS is sent on terminal loopbacks. |

| | |
|---|---|
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |
| • 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 might make the command fail. |
| <AISVONAIS> | Defaults to N. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <PST> | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| <SST> | Secondary state. The parameter type is SST, which 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 |

# 11.51 ED-T3

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Digital Signal Facility (ED-T3) command edits the attributes related to a DS3/T3 port and the DS3i-N-12 card.

## Usage Guidelines

- The T3 facilities on the ONS 15310-CL are on the 15310-CL-CTX card.
- This command is not allowed if the card is a protect card.
- Neither FMT nor Line code are supported for T3/DS3 facility. They are supported on both the DS3XM and DS3E card. The unframed value of the framing format is only supported on the DS3E facility.
- If you send this command to edit TACC and any other attribute(s), and the port having the cross-connection or the port/VT has a TAP or TACC number, the Parameters Not Compatible error message is returned.

- Editing TACC using an ED-xxx command is only allowed when there is no circuit/cross-connection on the port and the port/VT does not have a TAP or TACC number. Otherwise, an error message (VT in Use) will be returned.
- TACC creation will be denied on the protect ports/cards.
- Automatic application of loopbacks originating from the far end can be initiated on the T3 ports of a DS3E, DS3NE, or DS3XM card.
- CTC can set the FMT attribute of a DS3(N)E line to AUTOPROVISION to set the framing based on the framing that is coming in. The result is the FMT field being blanked out for a few seconds or blanked out indefinitely for a preprovisioned DS3(N)E card in CTC. AUTOPROVISION is not considered a valid DS3 framing type. It is only used to trigger an autosense and subsequent autoprovisioning of a valid DS3 framing type (unframed, M13, C-BIT). TL1 does not have the AUTOPROVISION mode. TL1 maps/returns the AUTOPROVISION mode to the unframed framing type.
- For the DS3XM-12 card, the DS3/T3 configurable attributes (PM, TH, alarm, etc.) only apply on the ported ports (1 to 12) and the DS3-mapped (even) portless ports in xxx-xxx-T3 commands. If you attempt to provision or retrieve DS3/T3 attributes on the VT-mapped (odd) portless port in xxx-xxx-T3 commands, an error message is returned.
- For the DS3XM-12 card, if the administrative state is already set for a portless port, the state setting operation over its associated ported port is an invalid operation.
- The test set physical connection set up through ED-T3/DS1/STS1/VT1 of the DS3XM-12 card is only allowed on the physical front ports (PORTED ports, Ports 1 to 12), which are the monitoring ports.
  - The monitoring test access ports follow the common rules for the other cards. For example, ED-T3 on Port 2 (FAC-6-2) with a TACC number (8), the next port, Port 3 (FAC-6-3) is used as the monitoring point also. The RTRV-T3 on both Port 2 and Port 3 return the same TACC number (8) being used to monitor the cross-connection end (A-B). The last port (Port 12) is not allowed to set up a physical connection with the test set because there is no next available port to be the monitoring port.
  - The DISC-TACC and CHG-TACC commands follow the same requirements as in the previous bullet, but applied on the ported ports of the DS3XM-12 card.
  - The CONN-TACC command has monitored points that can be portless ports. This command is applied on both ported and portless ports of the DS3XM-12 card.
- If the entity has a TACC connection, the entity is not allowed to have ported or portless STS/VT cross-connection (or circuit) provisioning on the DS3XM-12 card.
- ED-T3 cannot be used to create TAPs on the DS3i-N-12 card on the SONET platform because the DS3I card only supports STS3C TAPs.
- You cannot use this command to change the default provisioning on Slots 3 and 15 for the DS3/EC1-48 card.
- The AISONLPBK parameter is only applicable to the ONS 15310-CL.
- The default values for all optional parameters are NE default values. These values might not be the current value for a parameter. Use a retrieve command to retrieve the current default values.
- You cannot directly transition a facility from IS to OOS-MA,DSBLD service state. You can transition a facility to OOS-MA,DSBLD service state from any state except OOS-MA,MT. To transition a facility from OOS-MA,MT to OOS-MA,DSBLD service state, all the following conditions must be met:
  - The facility is not sourcing a synchronization clock

- The facility's DCC is disabled
- The facility is not part of a protection group
- The facility is not supporting cross-connects
- The facility is not using overhead connections or overhead terminations (such as express orderwire, local orderwire, or user data channels [UDCs])

**Note** The conditions stipulated can be overridden by using the CMDMDE=FRCD option. The FRCD option will immediately remove the facility from service (except for IS to OOS-MA,DSBLD transition) with no consideration for orderly interruption.

**Category** Ports

**Security** Provisioning

**Input Format**

ED-T3:[<TID>]:<AID>:<CTAG>:::[FMT=<FMT>],[LINECDE=<LINECDE>],[LBO=<LBO>],[INHFELPBK=<INHFELPBK>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],[AISONLPBK=<AISONLPBK>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

**Input Example**

ED-T3:PETALUMA:FAC-1-2:123:::FMT=C-BIT,LINECDE=B3ZS,LBO=0-225,INHFELPBK=N,TACC=8,TAPTYPE=SINGLE,SOAK=10,SFBER=1E-4,SDBER=1E-6,NAME="T3 PORT",AISONLPBK=AIS_ON_LPBK_ALL,CMDMDE=CMDMDE:IS,AINS;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.15 FACILITY" section on page 25-35. |
| <FMT> | Digital signal frame format. The unframed value of the framing format is only supported for the DS3E card. The parameter type is DS_LINE_TYPE, which is the DS123 line type. |
| • C-BIT | C-BIT line type applies to the DS3XM and DS3E cards. |
| • M13 | M13 line type applies to the DS3XM and DS3E cards. |
| • UNFRAMED | Line type is unframed. The old DS3 (L3M) and DS3CR cards can only run in unframed mode. |
| <LINECDE> | Line code. The parameter type is DS_LINE_CODE, which is the DS123 line code. |
| • B3ZS | Bipolar with three-zero substitution |
| <LBO> | Line build-out settings. LBO is an integer. The parameter type is E_LBO, which is the electrical signal line build-out. |
| • 0–225 | Electrical signal line build-out range is 1–225. |
| • 226–450 | Electrical signal line build-out range is 226–450. |

| | |
|---|---|
| <INHFELPBK> | (Optional) Far-end loopback inhibition attribute of the port. If it is Y, the automatic far-end loopbacks are inhibited. It is either on or off. The system default is N. The parameter type is ON_OFF, which disables or enables an attribute. |
| • N | Disable an attribute. |
| • Y | Enable an attribute. |
| <TACC> | TAP number within a range of 0 to 999. Indicates whether the digroup being provisioned is to be used as a test access digroup. When TACC is 0 (zero), the TAP is deleted. Default is N. TACC is an integer. |
| <TAPTYPE> | TAP type. Defaults to DUAL. The parameter type is TAPTYPE, which is the test access point type. |
| • DUAL | Dual FAD |
| • SINGLE | Single FAD |
| <SOAK> | OOS-AINS to IS transition soak time as measured in 15-minute intervals. A value of 4 equals a soak time of 1 hour. The allowable range is 0 to 192 intervals (maximum of 48 hours). SOAK is an integer. |
| <SFBER> | The port signal failure threshold. The parameter type is SF_BER, which is the threshold for declaring signal failure on a facility or path. |
| • 1E-3 | SFBER is 1E-3. |
| • 1E-4 | SFBER is 1E-4. |
| • 1E-5 | SFBER is 1E-5. |
| <SDBER> | Port signal degrade threshold. The parameter type is SD_BER, which is the threshold for declaring signal degrade on a facility or path. |
| • 1E-5 | SDBER is 1E-5. |
| • 1E-6 | SDBER is 1E-6. |
| • 1E-7 | SDBER is 1E-7. |
| • 1E-8 | SDBER is 1E-8. |
| • 1E-9 | SDBER is 1E-9. |
| <NAME> | Name. NAME is a string. |
| <AISONLPBK> | The parameter type is AIS_ON_LPBK, which indicates whether. AIS is sent on a loopback. Defaults to AIS_ON_LPBK_ALL. |
| • AIS_ONLPBK_FACILITY | AIS is sent on facility loopbacks. |
| • AIS_ON_LPBK_ALL | AIS is sent on all loopbacks. |
| • AIS_ON_LPBK_OFF | AIS is not sent on loopbacks. |
| • AIS_ON_LPBK_TERMINAL | AIS is sent on terminal loopbacks. |
| <CMDMDE> | The parameter type is command mode (CMDMDE). Normal (NORM) mode is the default behavior for all commands but you can specify forced (FRCD) mode to force the system to override a state where the command would normally be denied. The FRCD mode of operation is applicable to delete a virtual concatenated (VCAT) member cross-connect in IS-NR or OOS-AU,AINS service states. |

| | |
|---|---|
| • 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 might make the command fail. |
| PST | Primary state. The parameter type is PST, which indicates the current overall service condition of an entity. |
| • IS | In service |
| • OOS | Out of service |
| SST | Secondary state. The parameter type is SST, which 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 |

# 11.52 ED-TRAPTABLE

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit Trap Table (ED-TRAPTABLE) command edits a trap destination entry identified by a specific trap destination address.

**Usage Guidelines** None

**Category** System

**Security** Provisioning

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

**Input Example** ED-TRAPTABLE::1.2.3.4:1:::COMMUNITY=“PUBLIC”,TRAPPORT=162,TRAPVER=SNMPV1;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.16 IPADDR" section on page 25-39. IP address identifying the trap destination. |
| <COMMUNITY> | Community name associated to the trap destination. Maximum of 32 characters. COMMUNITY is a string. |
| <TRAPPORT> | User datagram protocol (UDP) port number associated with the trap destination. Default to 162. TRAPPORT is an integer. |
| <TRAPVER> | SNMP version number. Defaults to SNMPv1. The parameter type is SNMP_VERSION (SNMP version). |
| • SNMPV1 | SNMP version 1 (default) |
| • SNMPV2 | SNMP version 2 |

# 11.53 ED-TRC-OCH

(Cisco ONS 15454) The Edit Trace Optical Channel Facility (ED-TRC-OCH) command edits trace-related optical channel facilities. Refer to the *Cisco ONS SONET TL1 Reference Guide* for specific card provisioning rules.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Provisioning

**Input Format**

ED-TRC-OCH:[<TID>]:<SRC>:<CTAG>:::[EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],[TRCLEVEL=<TRCLEVEL>],[TRCFORMAT=<TRCFORMAT>][:];

**Input Example**

ED-TRC-OCH:PETALUMA:CHAN-6-2:10:::EXPTRC="AAA",TRC="AAA",TRCMODE=MAN,TRCLEVEL=TTI-PM,TRCFORMAT=64-BYTE;

**Input Parameters**

| | |
|---|---|
| <SRC> | Source access identifier from the "25.8 CHANNEL" section on page 25-20. |
| <EXPTRC> | Expected path trace content. Indicates the expected path trace message (J1) contents. EXPTRC is any 64-character ASCII string, including the terminating CR (carriage return) and LF (line feed). A null value is equivalent to ALL. EXPTRC is a string. |
| <TRC> | The path trace message to be transmitted. The trace byte continuously transmits a 64-byte, fixed-length, ASCII string, one byte at a time. A null value defaults to the NE transmitting 62 null characters (Hex 00) and CR and LF. A null value is equivalent to ALL. |

| | |
|---|---|
| <TRCMODE> | Trace mode. Defaults to the OFF mode. The parameter type is TRCMODE (trace mode). |
| • AUTO | Use the previously received path trace string as the expected string. Not applicable to MXP/TXP cards. |
| • AUTO-NO-AIS | Use the previously received path trace string as the expected string and do not turn on AIS and RDI if TIM-P is detected. |
| • MAN | Use the provisioned expected string as the expected string. |
| • MAN-NO-AIS | Use the provisioned expected string as the expected string and do not turn on AIS and RDI if TIM-P is detected. |
| • OFF | Turn off path trace capability. Nothing will be reported. |
| <TRCLEVEL> | The trace level to be managed. TRCLEVEL is a string. |
| <TRCFORMAT> | Trace message size. The parameter type is TRCFORMAT (trace format). |
| • 1-BYTE | 1 byte trace message |
| • 16-BYTE | 16 byte trace message |
| • 64-BYTE | 64 byte trace message |

# 11.54 ED-USER-SECU

(Cisco ONS 15454, ONS 15327, ONS 15310-CL, ONS 15310-MA, ONS 15600) The Edit User Security (ED-USER-SECU) command edits a user's privileges, password, or ID. Only a Superuser can perform this operation. Privilege levels are described in the ENT-USER-SECU command.

## Usage Guidelines

- 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.
- Although the CTC allows both a <UID> and a <PID> of up to 20 characters, the CTC-entered users (<UID>, <PID>) are not valid TL1 users. For example, if you issue an ACT-USER command using a CTC-entered <UID> that is greater than 10 characters long, TL1 will respond with DENY.
- For the ED-USER-SECU command:

  ED-USER-SECU:[TID]:<UID>:[CTAG]::[<NEWUID>],[<NEWPID>],,[<UAP>]:;

  - If the <NEWPID> is specified, the syntax is checked.
  - The syntax of <UID> is not checked.
  - Old users can change their password without changing their user ID, but the new password must meet the new requirements.
  - The <NEWPID> is required when changing the <UID>.

- In this release, when <NEWUID> is specified, <NEWPID> (and the <UAP>) become mandatory, but it is possible to change a <UID> without changing the password by providing the same password. You cannot keep your old password if the old password does not meet the new syntax requirements. For example:
  - <UID> = CISCO2345
    <PID>=CISCO#234 /*PASSWORD ALREADY MEETS REQUIREMENTS*/

    ED-USER-SECU::CISCO2345:1::CISCO3456,CISCO#234,,PROV;

    TCCP 1970-01-02 13:15:35 M 1 COMPLD ;
  - <NEWUID> = CISCO60
    <UID> = CISCO40 <PID>=CISCO40 /*PASSWORD DOES NOT MEET REQUIREMENTS*/

    ED-USER-SECU::CISCO40:1::CISCO60,CISCO40,,PROV;

    BRONCOS4 1970-01-02 13:14:24 M 1 DENY IIFM /* INVALID PASSWORD */ ;
- The ED-USER-SECU command should be used to change the default password for the CISCO15 default Superuser.
- The ED-PID command cannot be used to change the empty password to a valid password.

**Category**

Security

**Security**

Superuser

**Input Format**

ED-USER-SECU:[<TID>]:<UID>:<CTAG>::[<NEWUID>],[<NEWPID>],,[<UAP>][:];

**Input Example**

ED-USER-SECU:PETALUMA:CISCO15:123::NEWUID,NEWPID,,MAINT;

**Input Parameters**

| | |
|---|---|
| <UID> | User identifier. Minimum UID is 6 characters. Maximum UID is 10 characters. UID is a string. |
| <NEWUID> | User's new identifier. Minimum NEWUID is 6 characters. Maximum NEWUID is 10 characters. NEWUID is a string. |
| <NEWPID> | User's new password. Minimum NEWPID is 6 characters. Maximum NEWPID is 10 characters. NEWPID is a string. |
| <UAP> | User's access privilege. The parameter type is PRIVILEGE, which is the security level. |
| • MAINT | Maintenance security level. 60 minutes of idle time. |
| • PROV | Provisioning security level. 30 minutes of idle time. |
| • RTRV | Retrieve security level. Unlimited idle time. |
| • SUPER | Superuser security level. 15 minutes of idle time. |

# 11.55 ED-VCG

(Cisco ONS 15454, ONS 15310-CL, ONS 15310-MA) The Edit Virtual Concatenated Group (ED-VCG) command edits the attributes of a VCG.

**Usage Guidelines** None

**Category** VCAT

**Security** Provisioning

**Input Format** ED-VCG:[<TID>]:<SRC>:<CTAG>:::[TXCOUNT=<TXCOUNT>],[NAME=<NAME>];

**Input Example** ED-VCG:NODE1:FAC-1-1:1234:::TXCOUNT=7,NAME=“VCG2”;

**Input Parameters**

| | |
|---|---|
| <SRC> | Source access identifier from the “25.15 FACILITY” section on page 25-35. |
| <TXCOUNT> | Number of members in the transmit (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. TXCOUNT is an integer. |
| <NAME> | Name of the VCAT group. Maximum length is 64 characters. NAME is a string. |

# 11.56 ED-VLAN

(Cisco ONS 15454) The Edit VLAN (ED-VLAN) command modifies a VLAN entry in the VLAN database. The VLAN database is a collection of VLANs used in an NE.

**Usage Guidelines** A VLAN having the specified AID should be present in the node.

**Category** Ethernet

**Security** Provisioning

**Input Format** ED-VLAN:[<TID>]:<AID>:<CTAG>:::[NAME=<NAME>],[PROTN=<PROTN>][:];

**Input Example**

ED-VLAN:PETALUMA:VLAN-4096:1:::NAME="MYVLAN",PROTN=N

**Input Parameters**

| | |
|---|---|
| <AID> | AID is used to access the VLAN. |
| VLAN-ALL | All AIDs for the VLAN. |
| VLAN-{0-4096} | Single AID for the VLAN. The value 0 is reserved for untagged VLANs. This identifier is used for customer VLAN IDs and service provider VLAN IDs. |
| NAME | Indicates the name of the VLAN. |
| PROTN | Indicates the VLAN protection, enable or disable feature |

# 11.57 ED-WDMANS

(Cisco ONS 15454) The Edit Wavelength Division Multiplexing Automatic Node Set Up (ED-WDMANS) command edits the optical node set-up application (AONS) attributes.

**Usage Guidelines**

None

**Category**

DWDM

**Security**

Maintenance

**Input Format**

ED-WDMANS:[<TID>]:<AID>:<CTAG>:::[POWER-IN=<POWERIN>],[POWER-OUT=<POWEROUT>],[POWER-EXP=<POWEREXP>],[NTWTYPE=<NTWTYPE>];

**Input Example**

ED-WDMANS:PENNGROVE:WDMSIDE-A:114:::POWERIN=10.0,POWEROUT=10.0,POWEREXP=10.0;

ED-WDMANS:PENNGROVE:WDMNODE:114:::NTWTYPE=METRO-CORE;

**Input Parameters**

| | |
|---|---|
| <AID> | Access identifier from the "25.32 WDMANS" section on page 25-54. |
| <WDMSIDE> | The AID is used to access the WDM side of an MSTP node. |
| • WDMSIDE-{UNKNOWN,A,B,C,D,E,F,G,H} | MSTP side identifier |
| <WDMNODE> | The AID is used to access the WDM side of an MSTP node. |
| • WDMNODE | MSTP side identifier |
| <POWERIN> | Input power for the OADM section or Mux/Demux for terminal nodes. POWERIN is a float. |

| | |
|---|---|
| <POWEROUT> | Output power for the OADM section or Mux/Demux for terminal nodes. POWEROUT is a float. |
| <POWEREXP> | Express power for the OADM section. POWEREXP is a float. |
| <NTWTYPE> | Network type where a DWDM node is installed. The parameter type is DWDM_RING_TYPE, which is the network type where the NE is installed. |
| • METRO-ACCESS | The network where a DWDM node is installed is a metro access network. |
| • METRO-CORE | The network where a DWDM node is installed is a metro core network. |
| • NONE | The node does not have a standard DWDM configuration. |

# 11.58 ED-WDMSIDE

(Cisco ONS 15454) The Edit Wavelength Division Multiplexing Side (ED-WDMSIDE) command modifies the WDM node side attribute.

**Usage Guidelines**

- If the AID is invalid, an IIAC (Invalid AID) error message is returned.
- The ALL AID is invalid for this command.

**Category**

DWDM

**Security**

Maintenance

**Input Format**

ED-WDMSIDE:[<TID>]:<AID>:<CTAG>:::[NEWSIDE=<NEWSIDE>][:];

**Input Example**

ED-WDMSIDE:PENNGROVE:WDMSIDE-A:114:::NEWSIDE=WDMSIDE-B;

**Input Parameters**

| | |
|---|---|
| <AID> | The AID is used to access the WDM side of an MSTP node. |
| • WDMSIDE-{A,B,C,D,E,F,G,H} | MSTP side identifier. |
| <NEWSIDE> | The AID is used to access the WDM side of an MSTP node. |
| • WDMSIDE-{A,B,C,D,E,F,G,H} | MSTP side identifier. |