CISCO SYSTEMS

# Cisco ONS SONET TL1 Command Quick Reference Guide, Release 6.0

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

**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 guide lists TL1 commands and autonomous messages by category. It includes basic descriptions and input and output formats supported by the Cisco ONS 15454, ONS 15327, ONS 15310-CL, and ONS 15600, Release 6.0. Refer to the *Cisco ONS SONET TL1 Command Guide* for a complete description of TL1 commands.

TL1 commands conform to the following syntax:

a:b:c:d:e: ...z;

where:

"a" is the Command Code

"b" is the Target Identifier (TID)

"c" is the Access Identifier (AID) or the User Identifier (UID)

"d" is the Correlation Tag (CTAG)

"e: ...z;" are other positions required for various commands

The TID, AID, and CTAG route and control the TL1 command.

Other parameters provide additional information required to complete the action requested by the command.

# 1 BLSR

*Table 1* **BLSR**

---

**DLT-<MOD_RING>**:[<TID>]:<AID>:<CTAG>[:::];

Deletes the BLSR of the NE.

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

Edits the BLSR attributes.

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

Creates either a two-fiber or four-fiber BLSR (four-fiber BLSR supported on the ONS 15454 and the ONS 15600 only).

**EX-SW-<OCN_BLSR>**:[<TID>]:<AID>:<CTAG>::,[<SWITCHTYPE>][,<DIRECTION>];

Exercises the algorithm for switching from a working facility to a protection facility without actually performing a switch.

---

*Table 1        BLSR (continued)*

---

**RTRV-<MOD_RING>:**[<TID>]:[<AID>]:<CTAG>[::::];

Retrieves the BLSR information of the Network Element (NE).

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "[<AID>]::[RINGID=<RINGID>],[NODEID=<NODEID>],[MODE=<MODE>],
  [RVRTV=<RVRTV>],[RVTM=<RVTM>],[SRVRTV=<SRVRTV>],[SRVTM=<SRVTM>],
  [EASTWORK=<EASTWORK>],[WESTWORK=<WESTWORK>],[EASTPROT=<EASTPROT>],
  [WESTPROT=<WESTPROT>]"
;

---

**RTRV-TRC-<OCN_BLSR>:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the valid J1 expected trace string, received trace string, trace mode, C2 byte and STS bandwidth of the OCN port if the port has a BLSR.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[LEVEL=<LEVEL>],[EXPTRC=<EXPTRC>],[INCTRC=<INCTRC>],
  [TRCMODE=<TRCMODE>],[C2=<C2>]"
;

---

# 2  Bridge and Roll

*Table 2        Bridge and Roll*

---

**DLT-BULKROLL-<OCN_TYPE>:**[<TID>]:<FROM>:<CTAG>:::[RFROMSTART=
<RFROMSTART>],[RFROMEND=<RFROMEND>],WHY=<WHY>;

Cancels or completes an attempted bulk rolling operation of a facility.

---

**DLT-ROLL-<MOD_PATH>:**[<TID>]:<FROM>,<TO>:<CTAG>:::WHY=<WHY>;

Cancels or completes an attempted rolling operation of a facility.

---

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

Edits information about rolling traffic from one end point to another without interrupting service

---

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

Forces a valid signal to complete a rolling operation.

---

*Table 2* **Bridge and Roll  (continued)**

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

Enters information for rolling traffic from one end-point to another without interrupting service. Line level rolling/bulk rolling only.

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

Enters information for rolling traffic from one end-point to another without interrupting service. Single paths (STS or VT).

**RTRV-BULKROLL-<OCN_TYPE>:**[<TID>]:<SRC>:<CTAG>;

Retrieves roll data parameters on a line.

Output Format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<FROM>:RFROM=<RFROM>,RTO=<RTO>,[RMODE=<RMODE>],VLDSIG=<VLDSIG>"
;
```

**RTRV-ROLL-<MOD_PATH>:**[<TID>]:<SRC>:<CTAG>;

Retrieves roll data parameters.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<FROM>,<TO>:RFROM=<RFROM>,RTO=<RTO>,[RMODE=<RMODE>],
  VLDSIG=<VLDSIG>"
;
```

# 3 Cross Connections

*Table 3*        *Cross Connections*

---

**DLT-CRS-<PATH>:**[<TID>]:<SRC>,<DST>:<CTAG>[:::CKTID=<CKTID>],
[CMDMDE=<CMDMDE>];

Deletes a cross-connection between STS or VT paths.

---

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

Edits the state of an STS or VT cross-connection.

---

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

Creates an STS or VT cross-connection with cross-connection types (CCT).

---

**RTRV-CRS:**[<TID>]:<AID>:<CTAG>[:::CRSTYPE=<CRSTYPE>][:];

Retrieves all the cross-connections based on the required cross-connection type for all STS or VT connections.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<SRC>,<DST>:<CCT>,<CRSTYPE>:[DRITYPE=<DRITYPE>],[DRINODE=<SYNCSW>],
   [CKTID=<CKTID>]:<PSTPSTQ>,[<SSTQ>]"
;
```

---

**RTRV-CRS-<PATH>:**[<TID>]:<SRC>:<CTAG>[:::::];

Retrieves all connections that are associated with the entered AID(s) or AID range.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<SRC>,<DST>:<CCT>,<CRSTYPE>:[DRITYPE=<DRITYPE>],[DRINODE=<DRINODE>],
   [CKTID=<CKTID>]:<PSTPSTQ>,[<SSTQ>]"
;
```

---

# 4  DWDM

✎

**Note** ONS 15454 only.

***Table 4*** ***DWDM***

---

**DLT-FFP-<MOD2DWDMPAYLOAD>:**[<TID>]:<SRC>,<DST>:<CTAG>[:::];

Deletes Y cable protection on client facilities.

---

**DLT-LNK-<MOD2O>:**[<TID>]:<FROM>,<TO>:<CTAG>;

Deletes an optical link between two optical connection points.

---

**DLT-OSC:**[<TID>]:<AID>:<CTAG>;

Deletes the optical service channel (OSC) group of the NE.

---

**DLT-WLEN:**[<TID>]:<AID>:<CTAG>[:::CMDMDE=<CMDMDE>],[CKTID=<CKTID>];

Deletes the provisioned wavelength (WLEN).

---

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

Edits the operating parameters for an DWDM client facility.

---

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

Modifies the amplification power control (APC) application attributes.

---

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

Edits a Y cable protection group on client facilities.

---

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

Edits the provisioning for the default protection group on the DWDM port of a TXP_MR_2.5G or TXPP_MR_2.5G card.

---

**ED-LNK-<MOD2O>:**[<TID>]:<FROM>,<TO>:<CTAG>:::[CMDMDE=<CMDMDE>]:[<PST>
[,<SST>]];

Edits an optical link.

---

*Table 4* **DWDM (continued)**

**ED-OCH:**[<TID>]:<AID>:<CTAG>:::[RDIRN=<RDIRN>],[EXPWLEN=<EXPWLEN>],
[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],[CALOPWR=<CALOPWR>],
[CHPOWER=<CHPOWER>],[NAME=<PORTNAME>],[SFBER=<SFBER>],[SDBER=<SDBER>],
[COMM=<COMM>],[GCCRATE=<GCCRATE>],[OSDBER=<OSDBER>],[DWRAP=<DWRAP>],
[FEC=<FEC>],[PAYLOADMAP=<PAYLOADMAP>],[MACADDR=<MACADDR>],
[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],[SOAK=<SOAK>],[OSPF=<OSPF>],
[MFS=<MFS>],[CMDMDE=<CMDMDE>]:[<PST>[,<SST>]];

Edits the attributes (service parameters) and state of an optical channel (OCH) facility.

**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>]];

Edits the attributes (service parameters) and state of an optical multiplex section (OMS) facility.

**ED-OSC:**[<TID>]:<AID>:<CTAG>:::[RINGID=<RINGID>,][NODEID=<NODEID>];

Edits the OSC group attributes.

**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>]];

Edits the attributes (service parameters) and state of an optical transport section (OTS) facility.

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

Edits the expected span loss verification.

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

Edits trace-related OCH facilities.

**ED-WDMANS:**[<TID>]:<AID>:<CTAG>:::[POWERIN=<POWERIN>],
[POWEROUT=<POWEROUT>],[POWEREXP=<POWEREXP>],[NTWTYPE=<NTWTYPE>];

Edits the Automatic Optical Node Setup (AONS) application attributes.

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

Edits wavelength provisioning.

*Table 4* **DWDM** *(continued)*

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

Creates Y cable protection on client facilities.

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

Creates an optical link between two optical connection points.

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

Creates the OSC group of the NE.

**ENT-WLEN:**[<TID>]:<AID>:<CTAG>::[<CCT>]:[SIZE=<SIZE>],
[CKTID=<CKTID>]:[<PST>[,<SST>]];

Creates a wavelength.

**OPR-APC:**[<TID>]::<CTAG>[::::];

Permits the APC application inside the NE to force regulation of the optical power to the entire
DWDM ring.

**OPR-LASER-OTS:**[<TID>]:<AID>:<CTAG>;

Instructs a laser to be switched on.

**OPR-LNK:**[<TID>]::<CTAG>;

Permits the optical link application inside the NE to calculate all the automatic optical links between
end points which can be univocally identified by the NE.

**OPR-PROTNSW-OCH:**[<TID>]:<AID>:<CTAG>::<SW>;

Performs a protection switch on the trunk port of a TXPP_MR_2.5G card (protect version only).

**OPR-SLV-WDMANS:**[<TID>]:<AID>:<CTAG>;

Invokes the calculation of the expected span loss verification.

**OPR-WDMANS:**[<TID>]::<CTAG>;

Operates the AONS application inside the NE to force a recompute of the value to be assigned to all
Variable Optical Attenuators (VOA) representing the optical path inside the node.

**RLS-LASER-OTS:**[<TID>]:<AID>:<CTAG>;

Instructs a laser to be switched off.

**RLS-PROTNSW-<MOD2DWDMPAYLOAD>:**[<TID>]:<SRC>:<CTAG>[::];

Releases a Y cable protection switch on client facilities.

***Table 4      DWDM (continued)***

---

**RLS-PROTNSW-OCH:**[<TID>]:<AID>:<CTAG>;

Performs a protection switch on the trunk port of a TXPP_MR_2.5G card.

---

**RTRV-<MOD2DWDMPAYLOAD>:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the configuration parameter of a DWDM client.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AIDUNIONID>,<AIDTYPE>:,,[<ROLE>],[<STATUS>]:[NAME=<NAME>],[LBCL=<LBCL>],
  [OPT=<OPT>],[OPR=<OPR>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:<PSTPSTQ>,[<SST>]"
;
```

---

**RTRV-ALMTH-<MOD2>:**[<TID>]:<AID>:<CTAG>::[<CONDTYPE>][,,::];

Retrieves the alarm threshold values.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>,<MOD>:<CONDTYPE>,,,<THLEVEL>"
;
```

---

**RTRV-APC:**[<TID>]::<CTAG>;

Retrieves the APC application attributes.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "::[APCENABLE=<APCENABLE>,][APCSTATE=<APCSTATE>]"
;
```

---

**RTRV-FFP-<MOD2DWDMPAYLOAD>:**[<TID>]:<SRC>:<CTAG>[::::];

Retrieves Y cable protection on client facilities.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AIDUNIONID>,<AIDUNIONID1>::[PROTTYPE=<PROTTYPE>],[PROTID=<PROTID>],
  [RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>]"
;
```

*Table 4*        *DWDM (continued)*

---

**RTRV-FFP-OCH:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the protection group information for the TXP_MR_2.5G and TXPP_MR_2.5G trunk port.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<WORK>,<PROTECT>::[PROTTYPE=<PROTTYPE>],[PROTID=<PROTID>],
  [RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],
  [DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>],[OPOTYPE=<OPOTYPE>]"

**;**

---

**RTRV-LNK:**[<TID>]::<CTAG>;

Retrieves all the optical links created in the NE.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<FROM>,<TO>::[OLNKT=<OLNKT>],[CTYPE=<CTYPE>],[RDIRN=<RDIRN>],
  [BAND=<BAND>],[WLEN=<WLEN>]:<PST_PSTQ>,[<SST>]"

**;**

---

**RTRV-LNK-<MOD2O>:**[<TID>]:<AID>:<CTAG>:::[OLNKT=<OLNKT>],[CTYPE=<CTYPE>],
[RDIRN=<RDIRN>];

Retrieves any optical link associated with the entered AIDs or AID range.

Output format:

   SID DATE TIME
M  CTAG COMPLD
  "<FROM>,<TO>::[OLNKT=<OPTICALLINKTYPE>],[CTYPE=<CREATIONTYPE>],
  [RDIRN=<RDIRN>],[BAND=<BAND>],[WLEN=<WLEN>]:<PST_PSTQ>,[<SST>]"

;

---

**RTRV-NE-APC:**[<TID>]:[<AID>]:<CTAG>;

Retrieves the APC application ports that are involved in node setup regulation.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<AID>,<MOD>::[MODIFDAT=<MODIFDAT>],[MODIFTM=<MODIFTM>],
  [CHECKDAT=<CHECKDAT>],[CHECKTM=<CHECKTM>]"

;

*Table 4*      *DWDM (continued)*

---

**RTRV-NE-WDMANS:**[<TID>]::<CTAG>;

Retrieves the optical nodes setup (WDMANS) application ports involved in node setup regulation.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "[<AID>],<AIDTYPE>::[REGULATED=<REGULATED>],[PARAM=<PARAM>]"
;
```

---

**RTRV-OCH:**[<TID>]:<AID>:<CTAG>;

Retrieves the attributes (service parameters) and state of an OCH facility.

Output format:

```
    SID DATE TIME
M  CTAG COMPLD
  "<AID>:,,[<ROLE>],[<STATUS>]:[RDIRN=<RDIRN>],[OPTYPE=<OPTICALPORTTYPE>],
  [OPWR=<POWER>],[EXPWLEN=<EXPWLEN>],[ACTWLEN=<ACTWLEN>],
  [ILOSS=<ILOSS>],[VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],
  [VOAPWR=<VOAPWR>],[VOAREFATTN=<VOAREFATTN>],
  [VOAREFPWR=<VOAREFPWR>],[REFOPWR=<REFOPWR>],[CALOPWR=<CALOPWR>],
  [CHPOWER=<CHPOWER>],[NAME=<PORTNAME>],[SFBER=<SFBER>],[SDBER=<SDBER>],
  [COMM=<COMM>],[GCCRATE=<GCCRATE>],[DWRAP=<DWRAP>],[FEC=<FEC>],
  [PAYLOADMAP=<PAYLOADMAP>],[OSFBER=<OSFBER>],[OSDBER=<OSDBER>],
  [MACADDR=<MACADDR>],[SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],
  [SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[OSPF=<OSPF>],[LBCL=<LBCL>],
  [OPT=<OPT>],[OPR=<OPR>]:<PST_PSTQ>,[<SSTQ>]"
;
```

---

**RTRV-OMS:**[<TID>]:<AID>:<CTAG>;

Retrieves the attributes (service parameters) and state of an OMS facility.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::RDIRN=<RDIRN>,OPTYPE=<OPTICALPORTTYPE>,[OPWR=<POWER>],
  EXPBAND=<EXPBAND>,[ACTBAND=<ACTBAND>],[ILOSS=<ILOSS>],
  [VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],[VOAPWR=<VOAPWR>],
  [VOAREFATTN=<VOAREFATTN>],[VOAREFPWR=<VOAREFPWR>],
  [REFOPWR=<REFOPWR>],[CALOPWR=<CALOPWR>],[CHPOWER=<CHPOWER>],
  [NAME=<NAME>]:<PST_PSTQ>,[<SSTQ>]"
;
```

***Table 4***      ***DWDM (continued)***

---

**RTRV-OPM:**[<TID>]:[<AID>]:<CTAG>[::::];

Retrieves the optical power monitoring (OPM) parameters present at OCH layer in a ROADM node.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[POWEROUT=<POWEROUT>],[POWERADD=<POWERADD>],
  [POWERPT=<POWERPT>]"
;
```

---

**RTRV-OSC:**[<TID>]:<AID>:<CTAG>;

Retrieves all of the OSC information of the NE.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[RINGID=<RINGID>],[NODEID=<NODEID>],[EAST=<EAST>],[WEST=<WEST>]"
;
```

---

**RTRV-OTS:**[<TID>]:<AID>:<CTAG>;

Retrieves the attributes (service parameters) and state of an OTS facility.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
  "<AID>:RDIRN=<RDIRN>,OPTYPE=<OPTICALPORTTYPE>,[OPWR=<POWER>],
  [ILOSS=<ILOSS>],[VOAMODE=<VOAMODE>],[VOAATTN=<VOAATTN>],
  [VOAPWR=<VOAPWR>],[VOAREFATTN=<VOAREFATTN>],
  [VOAREFPWR=<VOAREFPWR>],[OSRI=<OSRI>],[AMPLMODE=<AMPLMODE>],
  [CHPOWER=<CHPOWER>],[GAIN=<GAIN>],[EXPGAIN=<EXPGAIN>],
  [REFOPWR=<REFOPWR>],[OFFSET=<OFFSET>],[REFTILT=<REFTILT>],
  [CALTILT=<CALTILT>],[ASEOPWR=<ASEOPWR>],[DCULOSS=<DCULOSS>],
  [AWGST=<AWGST>],[HEATST=<HEATST>],[NAME=<NAME>]:<PST_PSTQ>,[<SSTQ>]"
;
```

---

*Table 4*        *DWDM (continued)*

---

**RTRV-PROTNSW-OCH:**[<TID>]:<AID>:<CTAG>;

Retrieves the protection switch status of a TXPP_MR_2.5G card.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:<SW>,<SWTYPE>"
;
```

---

**RTRV-SLV-WDMANS:**[<TID>]:<AID>:<CTAG>;

Retrieves the options provisionable by the ED-SLV-WDMANS command.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[HIGHSLVEXP=<HIGHSLVEXP>],[LOWSLVEXP=<LOWSLVEXP>],
  [SLVACT=<SLVACT>],[RESOLUTION=<RESOLUTION>]"
;
```

---

**RTRV-TRC-OCH:**[<TID>]:<SRC>:<CTAG>::[<MSGTYPE>],[<TRCLEVEL>][::];

Retrieves the sent trace string, expected trace string, received trace string, trace mode, and the trace level for the SONET J0 Section, the TTI PATH and SECTION monitoring levels of the DWDM facility.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<CHANNEL>,<MOD::[TRCLEVEL=<TRCLEVEL>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],
  [INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],[TRCFORMAT=<TRCFORMAT>]"
;
```

---

**RTRV-WDMANS:**[<TID>]:<AID>:<CTAG>;

Retrieves the automatic optical node setup (AONS) application attributes.

Output format:

```
  SID DATE TIME
  "<AID>::[POWERIN=<POWERIN>],[POWEROUT=<POWEROUT>],
  [POWEREXP=<POWEREXP>],[NTWTYPE=<NTWTYPE>],
  [OPTICALTYPE=<OPTICALTYPE>],[LASTRUNDAT=<LASTRUNDAT>],
  [LASTRUNTM=<LASTRUNTM>]"
;
```

*Table 4*      *DWDM (continued)*

**RTRV-WLEN:**[<TID>]:<AID>:<CTAG>;

Retrieves the wavelength provisioning information.

Output format:

   SID DATE TIME
M  CTAG COMPLD
   "<AID>:<CCT>:[SIZE=<SIZE>],[CKTID=<CKTID>]:<PST_PSTQ>,[<SSTQ>]"
;

**SET-ALMTH-<MOD2>:**[<TID>]:<AID>:<CTAG>::<CONDTYPE>,<THLEV>[,,,];

Sets alarm thresholds on MXP_2.5G_10G, TXP_MR_10G, TXP_MR_2.5G, TXPP_MR_2.5G, OSCM, OSC-CSM, OPT-PRE, OPT-BST, MD-4, MUX-32, DMX-32, AD-1C, AD-2C, AD-4C, AD-1B, AD-4B facilities, ports and channels.

# 5  Environment

*Table 5*      *Environment*

**OPR-ACO-ALL:**[<TID>]::<CTAG>;

Operates the cut-off of the office audible alarm indications without changing the local alarm indications.

**OPR-EXT-CONT:**[<TID>]:<AID>:<CTAG>::[<CONTTYPE>],[<DURATION>];

Operates an external control and closes the external control contact.

**REPT ALM ENV:**

Reports a customer defined condition on an environmental alarm input.

Output format:

   SID DATE TIME
** ATAG REPT ALM ENV
   "<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRTM>],[<DESC>]"
;

*Table 5*     *Environment (continued)*

**REPT EVT ENV:**

Reports a non-alarmed event against an environmental alarm input.

Output format:

```
  SID DATE TIME
A  ATAG REPT EVT ENV
  "<AID>:<ALMTYPE>,[<CONDEFF>],,,,,,,:[<DESC>]"
;
```

**RLS-EXT-CONT:**[<TID>]:<AID>:<CTAG>[::,];

Releases a forced contact state to return the control of the contact to an automatic control state.

**RTRV-ALM-ENV:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>];

Retrieves the environmental alarms.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRTM>],[<DESC>]"
;
```

**RTRV-ATTR-CONT:**[<TID>]:<AID>:<CTAG>[::<CONTTYPE>];

Retrieves attributes associated with an external control.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:[<CONTTYPE>]"
;
```

**RTRV-ATTR-ENV:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>];

Retrieves attributes associated with an environmental alarm.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:[<NTFCNCDE>],[<ALMTYPE>],[<DESC>]"
;
```

*Table 5     Environment (continued)*

---

**RTRV-COND-ENV:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<ALMTYPE>][,,,];

Retrieves the environmental conditions (not supported on the ONS 15600).

Output format:

   SID DATE TIME
M  CTAG COMPLD
   "<AID>:<NTFCNCDE>,<ALMTYPE>,[<OCRDAT>],[<OCRTM>],,,,[<DESC>]"
;

---

**RTRV-EXT-CONT:**[<TID>]:<AID>:<CTAG>[::<CONTTYPE>];

Instructs an NE to report the control state of an external control.

Output format:

   SID DATE TIME
M  CTAG COMPLD
   "<AID>:[<CONTTYPE>],<DUR>,[<CONTSTATE>]"
;

---

**SET-ATTR-CONT:**[<TID>]:<AID>:<CTAG>[::<CONTTYPE>];

Sets attributes associated with an external control.

---

**SET-ATTR-ENV:**[<TID>]:<AID>:<CTAG>::<NTFCNCDE>,<ALMTYPE>,<ALMMSG>;

Sets attributes associated with an external control.

---

# 6  Equipment

*Table 6     Equipment*

---

**ALW-SWDX-EQPT:**[<TID>]:<AID>:<CTAG>[::];

Allows automatic or manual switching on a duplex system containing duplexed or redundant equipment (ONS 15454 only).

---

**ALW-SWTOPROTN-EQPT:**[<TID>]:<AID>:<CTAG>[::<DIRN>];

Allows automatic or manual switching of an equipment unit back to a protection status (ONS 15454 only).

---

**ALW-SWTOWKG-EQPT:**[<TID>]:<AID>:<CTAG>[::<DIRN>];

Allows automatic or manual switching of an equipment unit back to a working status (ONS 15454 only).

---

**Table 6        Equipment (continued)**

---

**CHG-EQPT:**[<TID>]:<SRC>:<CTAG>::<EQPTTYPE>;

Performs an in-service upgrade from low-density (LD) electrical cards to high-density (HD) cards

---

**DLT-EQPT:**[<TID>]:<AID>:<CTAG>[:::];

Deletes a card from the NE.

---

**ED-EQPT:**[<TID>]:<AID>:<CTAG>:::[PROTID=<PROTID>],[PRTYPE=<PRTYPE>],
  [RVRTV=<RVRTV>],[RVTM=<RVTM>],[CMDMDE=<CMDMDE>],
  [CARDMODE=<CARDMODE>],[PEERID=<PEERID>],[REGENNAME=<REGENNAME>],
  [PWL=<PWL>],[RETIME=<RETIME>]:[<PST>[,<SST>]];

Edits the attributes for a given equipment slot in the NE.

---

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

Enters the card type and attributes for a given equipment slot in the NE.

---

**INH-SWDX-EQPT:**[<TID>]:<AID>:<CTAG>[::];

Inhibits the automatic or manual switching on an NE containing duplex equipment
(ONS 15454 only).

---

**INH-SWTOPROTN-EQPT:**[<TID>]:<AID>:<CTAG>[::<DIRN>];

Inhibits automatic or manual switching of an equipment unit to protection (ONS 15454 only).

---

**INH-SWTOWKG-EQPT:**[<TID>]:<AID>:<CTAG>[::<DIRN>];

Inhibits automatic or manual switching of an equipment unit back to the working unit
(ONS 15454 only).

---

**REPT ALM EQPT**

Reports an alarm condition against an equipment unit or slot.

Output format:
```
   SID DATE TIME
** ATAG REPT ALM EQPT
   "<AID>:<NTFCNCDE>,<CONDITION>,<SRVEFF>,[<OCRDAT>],
   [<OCRTM>],,:[<DESC>],[<AIDDET>"
;
```

*Table 6     Equipment (continued)*

**REPT EVT EQPT**

Reports the occurrence of a non-alarmed event against an equipment unit or slot.

Output format:

```
  SID DATE TIME
A  ATAG REPT EVT EQPT
  "<AID>:<CONDTYPE>,[<CONDEFF>],,,,,,,:[<DESC>],[<AIDDET>]"
;
```

**RMV-EQPT:**[<TID>]:<AID>:<CTAG>[::];

Removes equipment from the IS state and places it into the MT state.

**RST-EQPT:**[<TID>]:<AID>:<CTAG>[::];

Provisions equipment IS. It is applicable only to equipment in transition from the MT to the IS state.

**RTRV-ALM-EQPT:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<CONDTYPE>], [<SRVEFF>][,,,];

Retrieves and sends the current status of alarm conditions associated with the equipment units.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "[<AID>],[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
  [<OCRTM>],,:[<DESC>]"
;
```

**RTRV-ALMTH-EQPT:**[<TID>]::<CTAG>::[<CONDTYPE>][,,::];

Retrieves the alarm thresholds for the power level monitoring (ONS 15454 only).

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  ",<MOD2B>:<CONDTYPE>,,,<DNFIELD>"
;
```

***Table 6      Equipment (continued)***

---

**RTRV-COND-EQPT:**[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

Retrieves the equipment conditions.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<DESC>]"
;

---

**RTRV-EQPT:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves protection group information and status information for all cards.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>:<AIDTYPE>,<EQUIP>,[<ROLE>],[<STATUS>]:[PROTID=<PROTID>],
   [PRTYPE=<PRTYPE>],[RVRTV=<RVRTV>],[RVTM=<RVTM>],
   [CARDNAME=<CARDNAME>],[IOSCFG=<IOSCFG>],[CARDMODE=<CARDMODE>],
   [PEERID=<PEERID>],[REGENNAME=<REGENNAME>],[PWL=<PWL>],
   [TRANSMODE=<TRANSMODE>],[RETIME=<RETIME>]:[<PST_PSTQ>],[<SSTQ>]"
;

---

**SET-ALMTH-EQPT:**[<TID>]:<AID>:<CTAG>::<CONDTYPE>,<THLEV>[,,,];

Set the alarm threshold to manage the power level monitoring (ONS 15454 only).

---

**SW-DX-EQPT:**[<TID>]:<SRC>:<CTAG>::[<MODE>][,];

Switches an XCVT/XC10G card with the mate card within the NE.

---

**SW-TOPROTN-EQPT:**[<TID>]:<AID>:<CTAG>::[<MODE>],[<PROTID>],[<DIRN>];

Performs an equipment unit protection switch (ONS 15454 only).

---

**SW-TOWKG-EQPT:**[<TID>]:<AID>:<CTAG>::[<MODE>],[<DIRN>];

Switches the protected working unit back to the working unit (ONS 15454 only).

# 7  Facility

*Table 7*       *Facility*

---

**RMV-<MOD2>:**[<TID>]:<AID>:<CTAG>[::];

Removes a facility from service.

---

**RST-<MOD2>:**[<TID>]:<AID>:<CTAG>::::[<PST>],[<SST>];

Provisions a facility in service.

---

# 8  Fault

*Table 8*       *Fault*

---

**REPT ALM <MOD2ALM>**

Reports an alarm condition against a facility or a path.

Output format:

```
   SID DATE TIME
** ATAG REPT ALM <MOD2ALM>
   "<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
   [<OCRTM>],,:[<DESC>],[<AIDDET>]"
;
```

---

**REPT ALM COM**

Reports an alarm condition when an AID cannot be given.

Output format:

```
   SID DATE TIME
** ATAG REPT ALM COM
   "[<AID>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],,:[<DESC>]"
;
```

---

*Table 8      Fault (continued)*

---

**REPT EVT <MOD2ALM>**

Reports the occurrence of a non-alarmed event.

Output format:

  SID DATE TIME
A  ATAG REPT EVT <MOD2ALM>
  "<AID>:<CONDTYPE>,[<CONDEFF>],,,[<LOCN>],,[<MONVAL>],[<THLEV>],
  [<TMPER>]:[<DESC>],[<AIDDET>]"
;

---

**REPT EVT COM**

Reports a non-alarmed event against an NE when there is no AID associated with it.

Output format:

  SID DATE TIME
A  ATAG REPT EVT COM
  "[<AID>]:<CONDTYPE>,[<CONDEFF>],,,,,,,:[<DESC>]"
;

---

**RTRV-ALM-ALL:**[<TID>]:[<AID>]:<CTAG>::[<NTFCNCDE>],[<CONDITION>],
[<SRVEFF>][,,,];

Retrieves and sends the current status of all active alarm conditions.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "[<AID>],[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,
  <OCRDAT>,<OCRTM>,,:[<DESC>],[<AIDDET>]"
;

*Table 8     Fault (continued)*

---

**RTRV-COND-<MOD2ALM>:**[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

Retrieves the current standing condition and/or state associated with an entity.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
  [<OCRTM>],,,[<DESC>]"
;
```

---

**RTRV-COND-ALL:**[<TID>]:[<AID>]:<CTAG>::[<TYPEREQ>][,,,];

Retrieves the current standing condition for all entities.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
  [<OCRTM>],,,[<DESC>]"
;
```

---

# 9  File Transfer

*Table 9     File Transfer*

---

**APPLY:**[<TID>]::<CTAG>[::<MEM_SW_TYPE>];

Activates or reverts a software load during a software upgrade or downgrade (not supported on the (ONS 15600).

---

**COPY-IOSCFG:**[<TID>]:<AID>:<CTAG>::SRC=<SRC>,DEST=<DEST>;

Uploads the startup IOS configuration file from the network to the node. Downloads the startup IOS configuration file from the node to the network.

---

**COPY-RFILE:**[<TID>]:[<SRC>]:<CTAG>::TYPE=<XFERTYPE>,[SRC=<SRC1>],
[DEST=<DEST>],[OVWRT=<OVWRT>],[FTTD=<FTTD>];

Downloads a new software package from the location specified by the FTP URL.

---

*Table 9       File Transfer (continued)*

**REPT EVT FXFR**

Reports the FTP software download status of the start, completion and completed percentage (not supported on the ONS 15600).

Output format:

```
  SID DATE TIME
A  ATAG REPT EVT FXFR
  "<FILENAME>,<FXFR_STATUS>,[<FXFR_RSLT>],[<PRCNT_XFRD>]"
;
```

**REPT EVT IOSCFG**

Reports the status of copying the IOS configuration file, when the COPY-IOSCFG command is issued.

Output format:

```
  SID DATE TIME
A  ATAG REPT EVT IOSCFG
  "<AID>:<SRC>,<DEST>,<STATUS>,[<RESULT>]"
;
```

# 10  Log

*Table 10       Log*

**ALW-MSG-DBCHG:**[<TID>]::<CTAG>[::,,];

Enables REPT DBCHG.

**INH-MSG-DBCHG:**[<TID>]::<CTAG>[::,,];

Disables REPT DBCHG.

**REPT DBCHG**

Reports any changes on the NE that result from certain TL1 commands or an external event.

Output format:

```
  SID DATE TIME
A  ATAG REPT DBCHG
  "TIME=<TIME>,DATE=<DATE>,[SOURCE=<SOURCE>],[USERID=<USERID>],
  DBCHGSEQ=<DBCHGSEQ>:<COMMAND>:<AID>:::<PSTPSTQ>,<SST>"
;
```

***Table 10     Log (continued)***

---

**RTRV-AUDIT-LOG:**[<TID>]::<CTAG>;

Retrieves the contents of the audit log stored in the NE.

Output format:

   SID DATE TIME
M  CTAG COMPLD
   "<ENTRYNUM>,<OCRDAT>,<OCRTM>,<TASKID>,<TXSTATUS>,<DESCRIPTION>"

;

---

**RTRV-LOG:**[<TID>]::<CTAG>::<LOGNM>;

Retrieves the alarm log of the NE.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>,<ALMNUMBER>:CURRENT=<CURRENT>,[PREVIOUS=<PREVIOUS>],
   <CONDITION>,<SRVEFF>,[TIME=<OCRTIME>],[DATE=<OCRDAT>]:<ALMDESCR>"

;

---

# 11  Network

***Table 11     Network***

---

**RTRV-MAP-NETWORK:**[<TID>]::<CTAG>;

Retrieves all the NE attributes which are reachable from the GNE.

Output format:

   SID DATE TIME
M  CTAG COMPLD
   "<IPADDR>,<NODENAME>,<PRODUCT>"

;

---

*Table 11*      **Network (continued)**

---

**RTRV-NE-IPMAP:**[<TID>]:[<AID>]:<CTAG>;

Retrieves the IP address and node name of the NEs that have the DCC connection with this NE.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>:<IPADDR>,<NODENAME>"
;
```

---

# 12  Paths

*Table 12*      **Paths**

---

**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>]];

Edits the attributes associated with an STS or VT path.

---

*Table 12      Paths (continued)*

---

**RTRV-<PATH>**:[<TID>]:<AID>:<CTAG>[:::BLSRPTHTYPE=<BLSRPTHTYPE>][:];

Retrieves the attributes associated with an STS or VT path.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<AID>::[LEVEL=<LEVEL>],[SFBER=<SFBER>],[SDBER=<SDBER>],[RVRTV=<RVRTV>],
  [RVTM=<RVTM>],[SWPDIP=<SWPDIP>],[HOLDOFFTIMER=<HOLDOFFTIMER>],
  [EXPTRC=<EXPTRC>],[TRC=<TRC>],[INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],
  [TRCFORMAT =<TRCFORMAT>],[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],
  [UPSRPTHSTATE=<UPSRPTHSTATE>],[C2=<C>],
  [BLSRPTHSTATE=<BLSRPTHSTATE>]:<PSTPSTQ>,[<SSTQ>]"
;

---

**RTRV-STS**:[<TID>]:<AID>:<CTAG>;

Retrieves the attributes associated with an STS path based on the granularity level of
NE/SLOT-specific STSs (not supported on the ONS 15310-CL).

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<AID>::[LEVEL=<LEVEL>],[SFBER=<SFBER>],[SDBER=<SDBER>],[RVRTV=<RVRTV>],
  [RVTM=<RVTM>],[SWPDIP=<SWPDIP>],[HOLDOFFTIMER=<HOLDOFFTIMER>],
  [EXPTRC=<EXPTRC>],[TRC=<TRC>],[INCTRC=<INCTRC>],[TRCMODE=<TRCMODE>],
  [TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[UPSRPTHSTATE=<UPSRPTHSTATE>],
  [C2=<C>],[BLSRPTHSTATE=<BLSRPTHSTATE>]:<PST_PSTQ>,[<SSTQ>]"
;

# 13  Performance

*Table 13      Performance*

---

**ALW-PMREPT-ALL**:[<TID>]::<CTAG>;

Resumes the processing of all inhibited PM reports.

---

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

Deletes a threshold entry in the RMON alarm table. Not supported for the ONS 15600.

---

*Table 13     Performance (continued)*

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

Creates an entry in the RMON alarm table for the threshold of data statistics that are managed by the RMON engine. Not supported for the ONS 15600.

**INH-PMREPT-ALL:**[<TID>]::<CTAG>;

Inhibits all scheduled PM reporting.

**INIT-REG-<MOD2>:**[<TID>]:<AID>:<CTAG>::<MONTYPE>,,[<LOCN>],[<DIRN>], [<TMPER>][,,];

Initializes the performance monitoring (PM) registers.

**REPT PM <MOD2>**

Reports of performance monitoring statistics as a result of schedule created by the SCHED-PMREPT command.

Output format:

```
  SID DATE TIME
A  ATAG REPT PM <MOD2>
  "<AID>:<MONTYPE>,<MONVAL>,<VLDTY>,<LOCN>,<DIRN>,<TMPER>,
  <MONDAT>,<MONTM>"
;
```

**RTRV-BFDLPM**-<MOD2>:[<TID>]:<AID>:<CTAG>:::REQTYPE=<REQTYPE>;

Retrieves the BFDL performance monitoring parameters.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:<MONTYPE>,<MONVAL>,<BUCKET>"
;
```

**RTRV-PM-<MOD2>:**[<TID>]:<AID>:<CTAG>::[<MONTYPE>],[<MONLEV>],[<LOCN>], [<DIRECTION>],[<TMPER>],[<DATE>],[<TIME>];

Retrieves the values of PM parameters for a specified card type.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<MONTYPE>,<MONVAL>,[<VLDTY>],[<LOCN>],[<DIRECTION>],
  [<TMPER>],[<MONDAT>],[<MONTM>]"
;
```

**Table 13    Performance (continued)**

---

**RTRV-PMMODE-<STS_PATH>:**[<TID>]:<SRC>:<CTAG>::<LOCN>;

Retrieves the PM mode that has been previously set in the NE data collection.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<CROSSCONNECTID>:[<LOCN>],<MODETYPE>"
;
```

---

**RTRV-PMSCHED-<MOD2>:**[<TID>]:<AID>:<CTAG>;

Retrieves the PM reporting schedule that was set for the NE by the SCHED-PMREPT command.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<REPTINVL>,<REPTDAT>,<REPTTM>,[<NUMINVL>],,
  [<MONLEV>],<LOCN>,,[<TMPER>],[<TMOFST>],[<INHMODE>]"
;
```

---

**RTRV-PMSCHED-ALL:**[<TID>]::<CTAG>;

Retrieves all the PM reporting schedules that were set for the NE by SCHED-PMREPT.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<REPTINVL>,<REPTDAT>,<REPTTM>,[<NUMINVL>],,
  [<MONLEV>],<LOCN>,,[<TMPER>],<TMOFST>,[<INHMODE>]"
;
```

---

**RTRV-RMONTH-<MOD2_RMON>:**[<TID>]:<AID>:<CTAG>::[<MONTYPE>],,,,
[<INTVL>]:[RISE=<RISE>],[FALL=<FALL>],[SAMPLE=<SAMPLE>],[STARTUP=<STARTUP>][:];

Retrieves the thresholds defined in the RMON alarm table. Not supported for the ONS 15600.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AIDUNIONID>,<AIDTYPE>:<MONTYPE>,,,,<INTVL>:INDEX=<INDEX>,RISE=<RISE>,
  FALL=<FALL>,SAMPLE=<SAMPLE>,STARTUP=<STARTUP>"
;
```

---

***Table 13    Performance (continued)***

---

**RTRV-TH-<MOD2>:**[<TID>]:<AID>:<CTAG>::[<MONTYPE>],[<LOCN>],<TMPER>[::];

Retrieves the current threshold level of one or more monitored parameters.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<MONTYPE>,[<LOCN>],,<THLEV>,[<TMPER>]"
;

---

**RTRV-TH-ALL:**[<TID>]::<CTAG>::[<MONTYPE>],[<LOCATION>],[<TMPER>][::];

Retrieves the current threshold level of all monitored parameters.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<AID>,<AIDTYPE>:<MONTYPE>,<LOCATION>,,<THLEV>,<TMPER>"
;

---

**SCHED-PMREPT-<MOD2>:**[<TID>]:<SRC>:<CTAG>::[<REPTINVL>],
[<REPTSTATM>],[<NUMREPT>],,[<MONLEV>],[<LOCN>],,[<TMPER>],[<TMOFST>];

Schedules/reschedules the NE to report the performance monitoring data for a line facility or for an STS/VT path periodically, using an automatic REPT PM message.

---

**SET-TH-<MOD2>:**[<TID>]:<AID>:<CTAG>::<MONTYPE>,<THLEV>,[<LOCN>],,[<TMPER>];

Sets the threshold for PM and sets the alarm thresholds for the MXP_2.5G_10G and TXP_MR_10G cards.

# 14  Ports

***Table 14    Ports***

---

**DLT-<MOD1PAYLOAD>:**[<TID>]:<AID>:<CTAG>[:::::];

Deletes the specified port (support limited to ports with Pluggable Port Modules [PPM]) (not supported on the ONS 15327).

---

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

Edits the Gigabit Ethernet Facility attributes (not supported on the ONS 15327).

---

**Table 14     Ports (continued)**

**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>]];

Edits the attributes related with the fibre channel facility (ONS 15454 only).

**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>]];

Edits the attributes related with the fiber connection payload facility (ONS 15454 only).

**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>]:[<PST>[,<SST>]];

Edits the attributes and state of an OC-N facility.

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

Modifies the Automatic Laser Shutdown (ALS) attributes for all facilities that support the ALS
feature (ONS 15454 and ONS 15310-CL only).

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

Edits the test access attributes for DS1 access on a DS3XM card (ONS 15454 only).

**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>]];

Edits the attributes of an EC1 facility (ONS 15454 only).

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

Provisions the payload (or signal) type of facility.

*Table 14 Ports (continued)*

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

Edits the front end port information of fast (10/100 Mbps) ethernet cards (ONS 15454 and ONS 15310-CL only).

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

Edits the attributes related to a G1000 port (ONS 15454 and ONS 15327 only).

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

Edits the Generic Framing Procedure (GFP) port on the ONS 15310-CL 15310-ML-100T-8, ONS 15454 CE-100T-8, ONS 15454 FC_MR-4 and ONS 15600 ASAP-4 cards.

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

Edits the back-end virtual port information on the ONS 15310-CL 15310-ML-100T-8, ONS 15454 CE-100T-8 and ONS 15600 ASAP-4 cards.

**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>], [AISONLOF=<AISONLOF>]:[<PST>[,<SST>]];

Edits the attributes related a DS1/T1 port (not supported on the ONS 15600).

**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>]];

Edits the attributes related to a DS3/T3 port (not supported on the ONS 15600).

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

Provisions the specified port (support limited to ports with Pluggable Port Modules [PPM]) (not supported on the ONS 15327).

**Table 14 Ports (continued)**

---

**OPR-ALS:**[<TID>]:<AID>:<CTAG>[::::];

Restarts the laser of an OC-N facility and in general for all the facilities that support the ALS feature. (ONS 15454 and ONS 15310-CL only).

---

**RTRV-<MOD1FCPAYLOAD>:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the attributes related with the fibre channel (FC) port (ONS 15454 only).

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>:,,[<ROLE>],[<STATUS>]:LINKRATE=<LINKRATE>,LINKSTATE=<LINKSTATE>,
   [LINKRCVRY=<LINKRCVRY>],[DISTEXTN=<DISTEXTN>],
   [LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[ENCAP=<ENCAP>],[NAME=<NAME>],
   [SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:
   <PST_PSTQ>,[<SST>]"
```

;

---

**RTRV-<MOD1FICONPAYLOAD>:**[<TID>]:<AID>:<CTAG>;

Retrieves the fibre channel specific settings for ports which have been configured to carry FICON traffic (ONS 15454 only).

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>:,,[<ROLE>],[<STATUS>]:[LINKRATE=<LINKRATE>],[LINKSTATE=<LINKSTATE>],
   [LINKRCVRY=<LINKRCVRY>],[DISTEXTN=<DISTEXTN>],
   [LINKCREDITS=<LINKCREDITS>],[MFS=<MFS>],[ENCAP=<ENCAP>],[NAME=<NAME>],
   [SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:
   <PST_PSTQ>,<SST>"
```

;

---

*Table 14*    *Ports (continued)*

---

**RTRV-<OCN_TYPE>:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the attributes and state of an OC-N facility (not supported on the ONS 15327).

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>:,,[<ROLE>],[<STATUS>]:[DCC=<DCC>],[AREA=<AREA>],[TMGREF=<TMGREF>],
  [SYNCMSG=<SYNCMSG>],[SENDDUS=<SENDDUS>],[PJMON=<PJMON>],
  [SFBER=<SFBER>],[SDBER=<SDBER>],[MODE=<MODE>],[WVLEN=<WVLEN>],
  [RINGID=<RINGID>],[BLSRTYPE=<BLSRTYPE>],[MUX=<MUX>],[UNIC=<UNIC>],
  [CCID=<CCID>],[NBRIX=<NBRIX>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],
  [SSMRCV=<SSMRCV>],[OSPF=<OSPF>],[LDCC=<LDCC>],[NAME=<NAME>],
  [LBCL=<LBCL>],[OPT=<OPT>],[OPR=<OPR>],[EXPTRC=<EXPTRC>],[TRC=<TRC>],
  [TRCMODE=<TRCMODE>],[TRCFORMAT=<TRCFORMAT>],[ADMSSM=<ADMSSM>],
  [SENDDUSFF=<SENDDUSFF>],[AISONLPBK=<AISONLPBK>],[FREQ=<FREQ>],
  [LOSSB=<LOSSB>],[FOREIGNFEND=<FOREIGNFEND>],
  [FOREIGNIPADDRESS=<FOREIGNIPADDRESS>],:<PSTPSTQ>,[<SSTQ>]"
;
```

---

**RTRV-10GIGE:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the 10 Gigabit per second specific parameters for the port (ONS 15454 only).

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:,,[<ROLE>],[<STATUS>]:[NAME=<NAME>],[MACADDR=<MACADDR>],
  [LBCL=<LBCL>],[OPT=<OPT>],[OPR=<OPR>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]:
  <PSTPSTQ>,[<SST>]"
;
```

---

**RTRV-ALS:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the ALS attributes of an OC-N facility and all facilities that support the ALS feature (ONS 15454 and ONS 15310-CL only).

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>,<AIDTYPE>::[ALSMODE=<ALSMODE>],[ALSRCINT=<ALSRCINT>],
  [ALSRCPW=<ALSRCPW>],[LSRSTAR=<LSRSTAR>]"
;
```

*Table 14    Ports (continued)*

---

**RTRV-DS1:**[<TID>]:<DS1AID>:<CTAG>[::::];

Retrieves the test access attributes on a DS1 layer of DS3XM card (ONS 15454 only).

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<DS1AID>::[TACC=<TACC>],[TAPTYPE=<TAPTYPE>],[MODE=<MODE>],[FMT=<FMT>]"
;

---

**RTRV-EC1:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the facility status of an EC1 card (ONS 15454 only).

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<AID>::[PJMON=<PJMON>],[LBO=<LBO>],[RXEQUAL=<RXEQUAL>],[SOAK=<SOAK>],
  [SOAKLEFT=<SOAKLEFT>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],
  [EXPTRC=<EXPTRC>],[TRC=<TRC>],[TRCMODE=<TRCMODE>],
  [TRCFORMAT=<TRCFORMAT>],[AISONLPBK=<AISONLPBK>]:<PSTPSTQ>,[<SSTQ>]"
;

---

**RTRV-ESCON:**[<TID>]:<AID>:<CTAG>;

Retrieves fibre channel specific settings for ports that have been configured to carry ESCON traffic (ONS 15454 only).

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<AID>:,,[<ROLE>],[<STATUS>]:[ENCAP=<ENCAP>]"
;

---

**RTRV-FAC:**[<TID>]:<SRC>:<CTAG>[::::];

Retrieves the payload type of the facility. Only applicable to a facility with a provisionable type.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<SRC>::PAYLOAD=<PAYLOAD>:<PST_PSTQ>,[<SSTQ>]"
;

---

***Table 14    Ports (continued)***

---

**RTRV-FSTE:**[<TID>]:<AID>:<CTAG>;

Retrieves the front end port information of fast (10/100 Mbps) Ethernet cards (ONS 15454 and ONS 15310-CL only).

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[ADMINSTATE=<ADMINSTATE>],[LINKSTATE=<LINKSTATE>],[MTU=<MTU>],
  [FLOWCTRL=<FLOWCTRL>],[DUPLEX=<DUPLEX>],[SPEED=<SPEED>],[FLOW=<FLOW>],
  [EXPDUPLEX=<EXPDUPLEX>],[EXPSPEED=<EXPSPEED>],[VLANCOS=<VLANCOS>],
  [IPTOS=<IPTOS>],[OPTICS=<OPTICS>],[NAME=<NAME>],[SOAK=<SOAK>],
  [SOAKLEFT=<SOAKLEFT>]:<PST_PSTQ>,[<SSTQ>]"
;
```

---

**RTRV-G1000:**[<TID>]:<AID>:<CTAG>;

Retrieves the G1000 facilities configuration (ONS 15454 and ONS 15327 only).

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>::[MFS=<MFS>],[FLOW=<FLOW>],[LAN=<LAN>],[OPTICS=<OPTICS>],
  [TRANS=<TRANS>],[TPORT=<TPORT>],[LOWMRK=<LOWMRK>],
  [HIWMRK=<HIWMRK>],[AUTONEG=<AUTONEG>],[ENCAP=<ENCAP>],
  [NAME=<NAME>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>]:<PST_PSTQ>,[<SSTQ>]"
;
```

---

**RTRV-GFP:**[<TID>]:<SRC>:<CTAG>;

Retrieves the Generic Framing Procedure (GFP) port information on the ONS 15310-CL 15310-ML-100T-8, ONS 15454 CE-100T-8, FC_MR-4 and ONS 15600 ASAP-4cards.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[FCS=<FCS>],[AUTOTHGFPBUF=<AUTOTHGFPBUF>],[GFPBUF=<GFPBUF>],
  [FILTER=<FILTER>]"
;
```

---

***Table 14      Ports (continued)***

---

**RTRV-GIGE:**[<TID>]:<AID>:<CTAG>;

Retrieves the front end port information for the ML1000-2 Ethernet and ONS 15600 ASAP-4 cards.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>:,,<ROLE>,<STATUS>:[ADMINSTATE=<ADMINSTATE>],
  [LINKSTATE=<LINKSTATE>],[MTU=<MTU>],[ENCAP=<ENCAP>],
  [FLOWCTRL=<FLOWCTRL>],[OPTICS=<OPTICS>],[DUPLEX=<DUPLEX>],
  [SPEED=<SPEED>],[NAME=<NAME>],[FREQ=<FREQ>],[LOSSB=<LOSSB>]"
;
```

---

**RTRV-POS:**[<TID>]:<AID>:<CTAG>;

Retrieves the back end port information for the ML-series Ethernet cards when the back end port is working in POS mode.

Output format:

```
  SID DATE TIME
M  CTAG COMPLD
  "<AID>::[ADMINSTATE=<ADMINSTATE>],[LINKSTATE=<LINKSTATE>],[MTU=<MTU>],
  [ENCAP=<ENCAP>],[NAME=<NAME>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>]:
  <PST_PSTQ>,[<SST>]"
;
```

---

*Table 14    Ports (continued)*

**RTRV-T1:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the DS1 facilities configuration (not supported on the ONS 15600).

Output format:

    SID DATE TIME
M CTAG COMPLD
    "<AID>::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],[TACC=<TAP>],
    [TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],[SOAKLEFT=<SOAKLEFT>],[SFBER=<SFBER>],
    [SDBER=<SDBER>],[NAME=<NAME>],[SYNCMSG=<SYNCMSG>],
    [SENDDUS=<SENDDUS>],[RETIME=<RETIME>],[AISONLPBK=<AISONLPBK>],
    [AISVONAIS=<AISVONAIS>],[AISONLOF=<AISONLOF>],[MODE=<MODE>],
    [SYNCMAP=<SYNCMAP>],[ADMSSM=<ADMSSM>],[PROVIDESYNC=<PROVIDESYNC>],
    [VTMAP=<VTMAP>],[INHFELPBK=<INHFELPBK>]:<PST_PSTQ>,[<SSTQ>]"
;

**RTRV-T3:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the facilities properties of a DS3, DS3I (on SONET) and a DS3 trans mux card (not supported on the ONS 15600).

Output format:

    SID DATE TIME
M CTAG COMPLD
    "<AID>::[FMT=<FMT>],[LINECDE=<LINECDE>],[LBO=<LBO>],
    [INHFELPBK=<INHFELPBK>],[TACC=<TAP>],[TAPTYPE=<TAPTYPE>],[SOAK=<SOAK>],
    [SOAKLEFT=<SOAKLEFT>],[SFBER=<SFBER>],[SDBER=<SDBER>],[NAME=<NAME>],
    [AISONLPBK=<AISONLPBK>]:<PST_PSTQ>,[<SSTQ>]"
;

# 15  Protection

*Table 15    Protection*

**DLT-FFP-<OCN_TYPE>:**[<TID>]:<WORK>,<PROTECT>:<CTAG>[:::];

Deletes an OCn facility protection group in the 1+1 architecture.

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

Edits the optical facility protection.

**Table 15    Protection (continued)**

---

**ENT-FFP-<OCN_TYPE>**:[<TID>]:<WORK>,<PROTECT>:<CTAG>:::[PROTID=<PROTID>],
[RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[OPOTYPE=<OPOTYPE>],
[VRGRDTM=<VRGRDTM>],[DTGRDTM=<DEGRDTM>],[RCGRDTM=<RCGRDTM>][:];

Creates an optical 1+1 protection.

---

**OPR-PROTNSW-<OCN_TYPE>**:[<TID>]:<AID>:<CTAG>::<SC>,[<SWITCHTYPE>][:<DIRN>];

Instructs the NE to initiate a SONET line protection switch request.

---

**REPT SW**

Reports the autonomous switching of an unit in a duplex equipment unit pair to standby and its mate unit to the active state.

Output format:

```
   SID DATE TIME
A  ATAG REPT SW
   "<ACTID>,<STDBYID>"
;
```

---

**RLS-PROTNSW-<OCN_TYPE>**:[<TID>]:<AID>:<CTAG>[::<DIRECTION>];

Instructs a SONET NE to release (clear) a SONET line protection switch request.

---

**RTRV-FFP**:[<TID>]:<AID>:<CTAG>[::::];

Retrieves all optical 1+1 protection groups

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<WORK>,<PROTECT>:<LEVEL>:[PROTID=<PROTID>],[RVRTV=<RVRTV>],
   [RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],
   [DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>],[OPOTYPE=<OPOTYPE>]"
;
```

---

**RTRV-FFP-<OCN_TYPE>**:[<TID>]:<AID>:<CTAG>[::::];

Retrieves the optical facility protection information.

Output format:

```
    SID DATE TIME
M  CTAG COMPLD
   "<WORK>,<PROTECT>::[PROTTYPE=<PROTTYPE>],[PROTID=<PROTID>],
   [RVRTV=<RVRTV>],[RVTM=<RVTM>],[PSDIRN=<PSDIRN>],[VRGRDTM=<VRGRDTM>],
   [DTGRDTM=<DTGRDTM>],[RCGRDTM=<RCGRDTM>],[OPOTYPE=<OPOTYPE>]"
;
```

---

*Table 15       Protection (continued)*

---

**RTRV-PROTNSW-<OCN_TYPE>:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the switching state of a SONET line specified in the AID.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>:<SC>,[<SWITCHTYPE>]"
;
```

---

**RTRV-PROTNSW-<PATH>:**[<TID>]:<SRC>:<CTAG>[::::];

Retrieves the switching state of a SONET Path Protection STS path specified in the AID.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<CROSSCONNECTID>:<SC>,[<SWITCHTYPE>]"
;
```

---

# 16  Provisionable Patchcords

✎

**Note**   Not supported on the ONS 15600.

*Table 16       Provisionable Patchcords*

---

**DLT-LNKTERM:**[<TID>]:<AID>:<CTAG>;

Deletes a provisionable patchcord termination that is present on a node.

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

Edits the attributes of an existing provisionable patchcord termination.

---

*Table 16      Provisionable Patchcords (continued)*

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

Creates a provisionable patchcord termination (virtual link) on a physical interface.

**RTRV-LNKTERM:**[<TID>]:<AID>:<CTAG>;

Retrieves information about one or more provisionable patchcord terminations.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<AID>::PORT=<PORT>,[REMOTENODE=<REMOTENODE>],
   [REMOTELNKTERMID=<REMOTELNKTERMID>]"
;
```

# 17  Security

*Table 17      Security*

**ACT-USER:**[<TID>]:<UID>:<CTAG>[::<PID>];

Sets up a session with the NE.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<UID>:<LASTLOGINTIME>,<UNSUCCESSFULLOGINS>"
;
```

**ALW-CONSOLE-PORT:**[<TID>]:<AID>:<CTAG>;

Turns on the console port for the ML-Series cards.

**ALW-MSG-SECU:**[<TID>]::<CTAG>;

Allows REPT EVT SECU and REPT ALM SECU.

**ALW-MSG-SECU:**[<TID>]::<CTAG>[::,,];

Enables the REPT EVT SECU and REPT ALM SECU autonomous messages.

**ALW-USER-SECU:**[<TID>]::<CTAG>::<UID>;

Enables a user ID that has been disabled (by way of the INH-USER-SECU command) so the user can establish a session with the NE.

**Table 17      Security (continued)**

---

**CANC**

Reports the occurrence of a session timeout event.

Output format:

   SID DATE TIME
A ATAG CANC
   "<UID>"
;

---

**CANC-USER:[<TID>]:<USERID>:<CTAG>;**

Logs a user out of an active session with the NE.

---

**CANC-USER-SECU:[<TID>]:<UID>:<CTAG>;**

Logs out all sessions on the NE (TL1, CTC, etc.) of a user whose userid matches the UID specified in the command.

---

**CLR-COND-SECU:[<TID>]::<CTAG>[::<SECUALMTYPE>];**

Clears the specified standing condition.

---

**DLT-USER-SECU:[<TID>]:<UID>:<CTAG>;**

Deletes a user; can only be performed by a Superuser.

---

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

Edits the command security level of a particular command.

---

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

Allows a user to change his or her own password.

---

**ED-PROTOCOL:[<TID>]:<PROTOCOLAID>:<CTAG>::<PROTOCOLSTAT>;**

Enables/disables a protocol/service that is supported in the NE.

---

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

Edits a user's privileges, password, or ID and can only be performed by a Superuser.

---

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

Adds a user account; can only be performed by a Superuser.

---

**INH-CONSOLE-PORT:[<TID>]:<AID>:<CTAG>;**

Turns off the console port for the ML-Series cards.

---

**INH-MSG-SECU:[<TID>]::<CTAG>[::,,];**

Inhibits the REPT EVT SECU and REPT ALM SECU messages.

*Table 17     Security (continued)*

---

**INH-USER-SECU:[<TID>]::<CTAG>::<UID>;**

Disables (without deleting) a userid, so the user is denied access to the NE.

---

**REPT ALM SECU**

Reports the occurrence of an alarmed security event against the NE.

Output format:

```
   SID DATE TIME
** ATAG REPT ALM SECU
   "<AID>:<NOTIFCODE>,<SECUALMTYPE>"
;
```

---

**REPT EVT SECU**

Reports the occurrence of a non-alarmed security event against the NE.

Output format:

```
   SID DATE TIME
A  ATAG REPT EVT SECU
   "<AID>:<DNFIELD>,[<CONDEFF>],,,,,,,:<SECURITY>:<DNFIELD1>"
;
```

---

**REPT EVT SESSION**

Reports a non-alarmed event related to establishing a session with the NE.

Output format:

```
   SID DATE TIME
A  ATAG REPT EVT SESSION
   "<AID>:<EXP>,<PCN>"
   "<WARN>"
;
```

---

**RTRV-CMD-SECU:[<TID>]:<AID>:<CTAG>;**

Retrieves the current command security level of the command specified in the AID field.

Output format:

```
   SID DATE TIME
M CTAG COMPLD
   "<AID>:<CAP>"
;
```

---

*Table 17     Security (continued)*

---

**RTRV-CONSOLE-PORT:**[<TID>]:<AID>:<CTAG>;

Retrieves the status of the console port for the ML-Series cards.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<EQPT>:PORT=<PORT>"
;

---

**RTRV-DFLT-SECU:**[<TID>]:<AID>:<CTAG>;
Retrieves the system-wide default values associated with several security parameters.
Output format:

  SID DATE TIME
M CTAG COMPLD
  "<NE>:PAGE=<PAGE>,PCND=<PCND>,MXINV=<MXINV>,DURAL=<DURAL>,
  TMOUT=<TMOUT>,UOUT=<UOUT>,PFRCD=<PFRCD>,POLD=<POLD>,PINT=<PINT>,
  LOGIN=<LOGIN>,[PRIVLVL=<PRIVLVL>],[PDIF=<PDIF>]"
;

---

**RTRV-USER-SECU:**[<TID>]:<UID>:<CTAG>;

Retrieves the security information of a specified user or list of users.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<UID>:,<PRIVILEGE>:LOGGEDIN=<LOGGEDIN>,[NUMSESSIONS=<NUMSESS>],
  [LOCKEDOUT=<LOCKEDOUT>],[DISABLED=<DISABLED>]"
;

---

**SET-ATTR-SECUDFLT:**[<TID>]::<CTAG>::[PAGE=<PAGE>],[PCND=<PCND>],
[MXINV=<MXINV>],[DURAL=<DURAL>],[TMOUT=<TMOUT>],[UOUT=<UOUT>],
[PFRCD=<PFRCD>],[POLD=<POLD>],[PINT=<PINT>],[LOGIN=<LOGIN>],
[PRIVLVL=<PRIVLVL>],[PDIF=<PDIF>];

Sets the system-wide default values associated with several security parameters.

---

# 18  Synchronization

***Table 18***       ***Synchronization***

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

Edits the BITS reference attributes.

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

Edits the synchronization attributes of the NE.

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

Edits the synchronization reference list used to determine the sources for the NE's reference clock
and the BITS output clock.

**OPR-SYNCNSW:**[<TID>]:[<AID>]:<CTAG>::<SWITCHTO>,[<SC>];

Initiates a switch to the reference specified by the synchronization reference number if the reference
supplied is valid.

**REPT ALM BITS**

Reports an alarm condition on a BITS facility.

Output format:

```
   SID DATE TIME
** ATAG REPT ALM BITS
   "<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],,:[<DESC>]"
;
```

**REPT ALM SYNCN**

Reports an alarm condition against a synchronization reference.

Output format:

```
   SID DATE TIME
** ATAG REPT ALM SYNCN
   "<AID>:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
   [<OCRTM>],,:[<DESC>],[<EQPTTYPE>]"
;
```

*Table 18      Synchronization (continued)*

**REPT EVT BITS**

Reports the occurrence of a non-alarmed event against a BITS facility (not supported on the ONS 15600).

Output format:

```
  SID DATE TIME
** ATAG REPT ALM BITS
  "<AID>:<CONDTYPE>,[<CONDEFF>],,,,,,,:[<DESC>]"
;
```

**REPT EVT SYNCN**

Reports the occurrence of a non-alarmed event against a synchronization entity.

Output format:

```
  SID DATE TIME
A  ATAG REPT EVT SYNCN
  "<AID>:<CONDTYPE>,[<CONDEFF>],,,,,,,:[<DESC>],[<AIDDET>]"
;
```

**RLS-SYNCNSW:**[<TID>]:[<AID>]:<CTAG>;

Releases the previous synchronization reference provided by the OPR-SYNCNSW command.

**RTRV-ALM-BITS:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<CONDTYPE>],[<SRVEFF>][,,,];

Retrieves and sends the current status of alarm conditions associated with the BITS facility.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
  [<OCRTM>],,:[<DESC>]"
;
```

**RTRV-ALM-SYNCN:**[<TID>]:<AID>:<CTAG>::[<NTFCNCDE>],[<CONDTYPE>], [<SRVEFF>][,,,];

Retrieves and sends the current status of alarm conditions associated with a synchronization facility.

Output format:

```
  SID DATE TIME
M CTAG COMPLD
  "<AID>,[<AIDTYPE>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],
  [<OCRTM>],,:[<DESC>]"
;
```

***Table 18***     ***Synchronization (continued)***

---

**RTRV-BITS:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves the BITS configuration command.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>::[LINECDE=<LINECDE>],[FMT=<FMT>],[LBO=<LBO>],[SYNCMSG=<SYNCMSG>],
   [AISTHRSHLD=<AISTHRSHLD>],[SABIT=<SABIT>],[IMPEDANCE=<IMPEDANCE>],
   [BITSFAC=<BITSFAC>],[ADMSSM=<ADMSSM>]:[<PST>]"

;

---

**RTRV-COND-BITS:**[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

Retrieves the standing condition on BITS.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],[<OCRDAT>],
   [<OCRTM>],,,[<DESC>]"

;

---

**RTRV-COND-SYNCN:**[<TID>]:<AID>:<CTAG>::[<TYPEREQ>][,,,];

Retrieves the synchronization condition.

Output format:

   SID DATE TIME
M CTAG COMPLD
   "<AID>,[<AIDTYPE>]:[<NTFCNCDE>],<TYPEREP>,[<SRVEFF>],
   [<OCRDAT>],[<OCRTM>],,,[<DESC>]"

;

---

*Table 18     Synchronization (continued)*

| |
|---|
| **RTRV-NE-SYNCN**:[<TID>]::<CTAG>[::::]; |
| Retrieves the synchronization attributes of the NE. |
| Output format:<br><br>  SID DATE TIME<br>M CTAG COMPLD<br>  "::[TMMD=<TMMD>,][SSMGEN=<SSMGEN>],[QRES=<QRES>],[RVRTV=<RVRTV>],<br>  [RVTM=<RVTM>]"<br>; |
| **RTRV-SYNCN**:[<TID>]:<AID>:<CTAG>[::::]; |
| Retrieves the synchronization reference list used to determine the sources for the NE's reference clock and the BITS output clock. |
| Output format:<br><br>  SID DATE TIME<br>M CTAG COMPLD<br>  "<AID>:<REF>,<REFVAL>,[<QREF>],[<STATUS>],[<PROTECTSTATUS>]"<br>; |

# 19   System

*Table 19     System*

| |
|---|
| **ALW-MSG-ALL**:[<TID>]:[<AID>]:<CTAG>[::,,]; |
| Allows REPT ALM and REPT EVT autonomous messages to be transmitted. |
| **DLT-ROUTE**:[<TID>]::<CTAG>::<DESTIP>; |
| Deletes the static routes. |
| **DLT-ROUTE-GRE**:[<TID>]::<CTAG>:::IPADDR=<IPADDR>,IPMASK=<IPMASK>, NSAP=<NSAP>; |
| Deletes a GRE tunnel. |
| **DLT-TADRMAP**:[<TID>]::<CTAG>:::[TIDNAME=<TIDNAME>],[ADDRTYPE=<ADDRTYPE>]; |
| Deletes an entry in the TADRMAP table. |
| **DLT-TRAPTABLE**:[<TID>]:<AID>:<CTAG>; |
| Deletes SNMP trap destination entry. Entering ALL will delete the whole table. |

**Table 19    System (continued)**

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

Deletes a firewall tunnel.

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

Deletes a proxy tunnel.

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

Edits the date and the time.

**ED-NE-GEN**:[<TID>]::<CTAG>:::[NAME=<NAME>],[IPADDR=<IPADDR>],
[IPMASK=<IPMASK>],[DEFRTR=<DEFRTR>],[IIOPPORT=<IIOPPORT>],[NTP=<NTP>],
[ETHIPADDR=<ETHIPADDR>],[ETHIPMASK=<ETHIPMASK>],[SUPPRESSIP=<SUPPRESSIP>];
Edits the general node attributes of an NE.

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

Edits path related parameters for the NE-wide basis.

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

Modifies a trap destination entry identified by a specific trap destination address.

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

Creates the static route.

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

Creates a GRE tunnel.

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

Creates an entry in the TADRMAP table which maps the TID of the subtending NEs to their addresses.

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

Provisions a SNMP trap destination and its associated community, UDP port and SNMP version.

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

Creates a firewall tunnel.

*Table 19    System (continued)*

---

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

Creates a proxy tunnel.

---

**INH-MSG-ALL:**[<TID>]:[<AID>]:<CTAG>[::,,];

Inhibits REPT ALM and REPT EVT autonomous messages from being transmitted.

---

**INIT-SYS:**[<TID>]:<AID>:<CTAG>::<PH>[,<CMDMODE>];

Initializes the specified card and its associated subsystem(s).

---

**RTRV-HDR:**[<TID>]::<CTAG>;

Retrieves the header of a TL1 response message.

---

**RTRV-INV:**[<TID>]:<AID>:<CTAG>[::::];

Retrieves a listing of the equipment inventory.

Output format:

```
   SID DATE TIME
M CTAG COMPLD
   "<AID>,<AIDTYPE>::[PLUGTYPE=<PLUGTYPE>],[PN=<PN>],[HWREV=<HWREV>],
   [FWREV=<FWREV>],[SN=<SN>],[CLEI=<CLEI>],[TWL1=<TWL>],[TWL2=<TWL1>],
   [TWL3=<TWL2>],[TWL4=<TWL3>],[PLUGINVENDORID=<PLUGINVENDORID>],
   [PLUGINPN=<PLUGINPN>],[PLUGINHWREV=<PLUGINHWREV>],
   [PLUGINFWREV=<PLUGINFWREV>],[PLUGINSN=<PLUGINSN>],[ILOSSREF=<ILOSSREF>],
   [PID=<PID>],[VID=<VID>],[FPGA=<FPGA>]"
;
```

---

**RTRV-NE-GEN:**[<TID>]::<CTAG>;

Retrieves the general NE attributes.

Output format:

```
   SID DATE TIME
M CTAG COMPLD
   "[IPADDR=<IPADDR>],[IPMASK=<IPMASK>],[DEFRTR=<DEFRTR>],
   [IIOPPORT=<IIOPPORT>],[NTP=<NTP>],[ETHIPADDR=<ETHIPADDR>],
   [ETHIPMASK=<ETHIPMASK>],[NAME=<NAME>],[SWVER=<SWVER>],[LOAD=<LOAD>],
   [PROTSWVER=<PROTSWVER>],[PROTLOAD=<PROTLOAD>],[DEFDESC=<DEFDESC>],
   [PLATFORM=<PLATFORM>],[SECUMODE=<SECUMODE>],[SUPPRESSIP=<SUPPRESSIP>]"
;
```

*Table 19      System (continued)*

**RTRV-NE-PATH:**[<TID>]::<CTAG>[::::];

Retrieves the general NE attributes.

Output format:
```
   SID DATE TIME
M CTAG COMPLD
   "[PDIP=<PDIP>],[XCMODE=<XCMODE>]"
;
```

**RTRV-NETYPE:**[<TID>]::<CTAG>;

Retrieves the equipment-related information of an NE.

Output format:
```
   SID DATE TIME
M  CTAG COMPLD
   "<VENDOR>,<MODEL>,<NETYPE>,<SW_ISSUE>"
;
```

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

Retrieves static routes.

Output format:
```
   SID DATE TIME
M  CTAG COMPLD
   ",:<DESTIP>,<IPMASK>,<NXTHOP>,<COST>"
;
```

**RTRV-ROUTE-GRE:**[<TID>]::<CTAG>[::::];

Retrieves the existing GRE tunnels.

Output format:
```
   SID DATE TIME
M  CTAG COMPLD
   ",:IPADDR=<IPADDR>,IPMASK=<IPMASK>,NSAP=<NSAP>,COST=<COST>"
;
```

*Table 19    System (continued)*

---

**RTRV-TOD**:[<TID>]::<CTAG>;

Retrieves the system date and time at the instant the command is executed.

Output format:

  SID DATE TIME
M CTAG COMPLD
  "<YEAR>,<MONTH>,<DAY>,<HOUR>,<MINUTE>,<SECOND>,
  <DIFFERENCE>:<TMTYPE>"
;

---

**RTRV-TRAPTABLE**:[<TID>]:[<AID>]:<CTAG>;

Retrieves a trap destination entry based on the destination address.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "<DEST>,<TRAPPORT>,<COMMUNITY>,<SNMPVERSION>"
;

---

**RTRV-TUNNEL-FIREWALL**:[<TID>]::<CTAG>;

Retrieves the contents of the firewall table.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "[SRC ADDR=<SRCADDR>],[SRC MASK=<SRCMASK>],[DEST ADDR=<DESTADDR>],
  [DEST MASK=<DESTMASK>]"
;

---

**RTRV-TUNNEL**-PROXY:[<TID>]::<CTAG>;

Retrieves the contents of the proxy tunnel table.

Output format:

  SID DATE TIME
M  CTAG COMPLD
  "[SRC ADDR=<SRCADDR>],[SRC MASK=<SRCMASK>],[DEST ADDR=<DESTADDR>],
  [DEST MASK=<DESTMASK>]"
;

---

**SET-TOD**:[<TID>]::<CTAG>::<YEAR>,<MONTH>,<DAY>,<HOUR>,<MINUTE>,
<SECOND>,[<DIFFERENCE>][:DST=<DST>];

Sets the system date and time for the NE.

---

# 20 Troubleshooting and Test Access

***Table 20    Troubleshooting and Test Access***

---

**CHG-ACCMD-<MOD_TACC>:**[<TID>]:<TAP>:<CTAG>::<MD>;

Changes the test access mode for the circuit being tested (not supported on the ONS 15310-CL).

---

**CONN-TACC-<MOD_TACC>:**[<TID>]:<SRC>:<CTAG>::<TAP>:MD=<MD>;

Connects the STS or VT defined by AID to the STS specified by the TAP number (not supported on the ONS 15310-CL).

Output format:

```
   SID DATE TIME
M CTAG COMPLD
   "<TAP>"
;
```

---

**DISC-TACC:**[<TID>]:<TAP>:<CTAG>;

Disconnects the TAP and puts the connection back to its original state.

---

**OPR-LPBK-<MOD2>:**[<TID>]:<AID>:<CTAG>::[<LOCATION>],,,[<PBKTYPE>];

Operates a signal loopback on an I/O card or on a cross-connect.

---

**RLS-LPBK-<MOD2>:**[<TID>]:<SRC>:<CTAG>::[<LOCATION>],,,[<PBKTYPE>];

Releases a signal loopback on an I/O card or on a cross-connect.

---

**RTRV-PTHTRC-<PATH>:**[<TID>]:<SRC>:<CTAG>::[<MSGTYPE>][:<LOCN>];

Instructs a SONET NE to retrieve the contents of the SONET path trace message.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<TRACMSG>"
;
```

---

**RTRV-TACC:**[<TID>]:<TAP>:<CTAG>;

Retrieves details associated with a TAP (not supported on the ONS 15310-CL).

Output format:

```
   SID DATE TIME
M CTAG COMPLD
   "<TAP>:<TACC_AIDA>,<TACC_AIDB>,[<MD>],[<CROSSCONNECTID>],
   <AIDUNIONID>,<PATHWIDTH>"
;
```

---

# 21  VCAT

✎

**Note**  ONS 15454 only.

**Table 21**     **VCAT**

---

**DLT-VCG:**[<TID>]:<SRC>:<CTAG>:::[CMDMDE=<CMDMDE>][:];

Deletes a virtual concatenated group (VCG) object.

---

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

Edits the attributes of a VCG.

---

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

Creates a VCG object.

---

**RTRV-VCG:**[<TID>]:<SRC>:<CTAG>[::::];

Retrieves all of the attributes provisioned for a VCG.

Output format:

```
   SID DATE TIME
M  CTAG COMPLD
   "<SRC>::TYPE=<TYPE>,TXCOUNT=<TXCOUNT>,CCT=<CCT>,[LCAS=<LCAS>],
   [BUFFERS=<BUFFERS>],[NAME=<NAME>]:<PST>"
;
```

---

# 22  Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation,* which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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