



# CHAPTER 17

## REPT Messages

This chapter provides report (REPT) messages for the Cisco ONS 15310-MA and Cisco ONS 15454.



**Note**

The REPT commands do not apply to the Cisco ONS 15454 M2 and Cisco ONS 15454 M6 platforms.

### 17.1 REPT ALM <MOD2ALM>

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm for 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, ETH, FSTE, G1000, GFPOS, GIGE, ILK, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STM1, STM4, STM16, STM64, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC3, VC4, VC4-2c, VC4-3c, VC4-4c, VC4-8c, VC4-16c, VC4-64c, VC12, VCG, VT1, VT2, or WLEN (REPT ALM <MOD2ALM>) message reports an alarm condition against a facility, an RPR interface, or a path.

#### Usage Guidelines

See [Table 28-1 on page 28-1](#) for supported modifiers by platform.

#### Category

Fault

#### Security

Retrieve

#### Output Format

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

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM 1GFC
  "FAC-2-1:MJ,LOS,SA,08-01,14-25-59,,:\\"LOSS OF SIGNAL\","OC12"
;
```

**Output Parameters**

| Parameter                                                                                                                                                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>                                                                                                                                                                    | Access identifier from the <a href="#">“26.19 LINE” section on page 26-44</a> .                                                                                                                                                                                                                                                                                                                                            |
| <NTFCNCDE>                                                                                                                                                               | Two-letter notification code. The parameter type is NO-TIF_CODE, which is a two-character notification code associated with an autonomous message.                                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>CL</li> <li>CR</li> <li>MJ</li> <li>MN</li> <li>NA</li> <li>NR</li> </ul>                                                         | The condition causing the alarm has cleared<br>A critical alarm<br>A major alarm<br>A minor alarm<br>The condition is not alarmed<br>The alarm is not reported                                                                                                                                                                                                                                                             |
| <CONDTYPE>                                                                                                                                                               | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed conditions (NA), and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <SRVEFF>                                                                                                                                                                 | The effect on service caused by the standing alarm or condition. The parameter type is SERV_EFF, which is the effect of the alarm on service.                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>NSA</li> <li>SA</li> </ul>                                                                                                        | The condition is non-service affecting<br>The condition is service affecting                                                                                                                                                                                                                                                                                                                                               |
| <OCRDAT>                                                                                                                                                                 | (Optional) Date                                                                                                                                                                                                                                                                                                                                                                                                            |
| <OCRTM>                                                                                                                                                                  | (Optional) Time                                                                                                                                                                                                                                                                                                                                                                                                            |
| <DESC>                                                                                                                                                                   | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |
| <AIDDET>                                                                                                                                                                 | (Optional) AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot.                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>15216-MD-40-EVEN</li> <li>15216-MD-40-ODD</li> <li>15216-MD-ID-50</li> <li>32DMX-L</li> <li>32WSS-L</li> <li>40G-MXP-C</li> </ul> | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid<br>Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid<br>Thermal Interleaver Passive Unit, spaced at 50 GHz grid<br>32-channel demultiplexer for L-band<br>32-channel wavelength switch selector for L-band<br>40 Gbit/Sec Multirate Muxponder                                                                             |

| Parameter        | Description                                                                                      |
|------------------|--------------------------------------------------------------------------------------------------|
| • 40-SMR1-C      | The single module 40-channel ROADM on C-band                                                     |
| • 40-SMR2-C      | The single module 40-channel ROADM with EDFA on C-band                                           |
| • 40G-TXP-C      | 40 Gigabits per second Multirate Transponder                                                     |
| • 80-WXC-C       | 80-channel wavelength cross-connect spaced at 100 GHz grid                                       |
| • AD-1B          | Optical Add/Drop Multiplexer (OADM) 1-Band Filter                                                |
| • AD-1C          | OADM 1-Channel Filter                                                                            |
| • AD-2C          | OADM 2-Channel Filter                                                                            |
| • AD-4B          | OADM 4-Band Filter                                                                               |
| • AD-4C          | OADM 4-Channel Filter                                                                            |
| • ADM-10G        | 12 x OC3/OC12/OC48/GIGE and OC192/Trunk ADM 10 Gbit/Sec.                                         |
| • AICI           | AIC-I card                                                                                       |
| • AIP            | Alarm Indication Panel                                                                           |
| • ALM-PWR        | Alarm Power                                                                                      |
| • ASAP-4         | Any Service, Any Port (ASAP) carrier card with four pluggable interface module (PIM) slots.      |
| • BP             | The backplane of the NE                                                                          |
| • CE-MR-6        | (ONS 15310 CL and ONS 15310 MA) -Interface card which supports 10/100/1000MBPS ether facilities. |
| • CE-100T-8      | 8-port 100T card                                                                                 |
| • CE-1000-4      | 4-port GIGE mapper card                                                                          |
| • CTX-2500       | CTX 2500 card for ONS 15310 MA                                                                   |
| • CRFT-TMG       | Craft Timing                                                                                     |
| • DCC            | The Data Communications Channel                                                                  |
| • DCU            | Dispersion Compensation Unit                                                                     |
| • DMX-32         | Optical De/Multiplexed (DMX) 32 Channels                                                         |
| • DS3i-N-12      | DS3i-N-12 card                                                                                   |
| • E1             | E1 card                                                                                          |
| • E1-21-DS3-E3-3 | (ONS 15310 MA SDH) E1, E3, DS3 card                                                              |
| • E1-63-DS3-E3-3 | (ONS 15310 MA SDH) E1, E3, DS3 card                                                              |
| • E1-42          | 42-port E1 card                                                                                  |
| • E1000T-2       | 2-port interface card supporting 1000BaseT Ethernet facilities                                   |
| • E100T-12       | 12-port interface card supporting 100BaseT Ethernet facilities                                   |
| • E100T-4        | Four-port interface card supporting 100BaseT Ethernet facilities                                 |
| • E1N            | E1N card                                                                                         |
| • E3             | E3 card                                                                                          |
| • FILLER_CARD    | Filler card                                                                                      |

| Parameter          | Description                                                                                            |
|--------------------|--------------------------------------------------------------------------------------------------------|
| • FMEC-155E-1TO1   | The equipment type for FMEC STM1E12 card                                                               |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection                                           |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection                                            |
| • FMEC-SMZ-E1      | FMEC card corresponding to E1 card                                                                     |
| • FMEC-SMZ-E3      | FMEC card corresponding to E3 card                                                                     |
| • FTA              | Fan Tray of the NE                                                                                     |
| • FTA1             | Fan Tray 1 of the NE                                                                                   |
| • FTA2             | Fan Tray 2 of the NE                                                                                   |
| • G1K-4            | G1K-4 card                                                                                             |
| • MD-4             | Optical Multiplexer/Demultiplexer with 4 Channels                                                      |
| • MESH-PP-SMR      | The passive unit Patch Panel device used to connect up to four 40-SMR2-C cards.                        |
| • ML100X-8         | 8-port 100T card with optical interface                                                                |
| • ML-100T-8        | (Cisco ONS 15310 MA and Cisco ONS 15454) Exige/Elise mapper card                                       |
| • ML-1000-2        | (Cisco ONS 15454) Daytona 2-port GigE                                                                  |
| • ML-100T-12       | ((Cisco ONS 15454) Daytona) 12-port FSTE                                                               |
| • MRC-12           | 12-port                                                                                                |
| • MRC-2.5G-4       | 12G (4 * 2.5G) Muxponder card                                                                          |
| • MRC-2.5G-12      | 12G (4 * 2.5G) Muxponder card                                                                          |
| • MMU              | Multiring mesh upgrade unit                                                                            |
| • MS-ISC-100T      | Fast Ethernet switch card used for internal shelf connection                                           |
| • MUX-32           | Optical Multiplexer (MUX) 32 Channels                                                                  |
| • MXP-2.5G-10G     | 10G (4 * 2.5G) Muxponder card                                                                          |
| • MXP-MR-10DME     | 10 Gbps datamux with enhanced FEC                                                                      |
| • OPT-AMP-L        | Optical preamplifier card for L-band                                                                   |
| • OPT-BST          | Optical booster amplifier                                                                              |
| • OPT-BST-L        | Optical booster for L-band                                                                             |
| • OPT-PRE          | Optical Preamplifier                                                                                   |
| • OPT-RAMP-C       | Raman pump amplifier C-band                                                                            |
| • OPT-RAMP-CE      | An extended version of Raman pump amplifier                                                            |
| • OPT-RAMP-E       | Raman pump amplifier E-band                                                                            |
| • OSC-CSM          | Optical Service Channel with Combiner/Separator Module                                                 |
| • OSCM             | Optical Service Channel (OSC) Module                                                                   |
| • OTU2-XP          | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64 |
| • PIM-4            | Pluggable interface module with 4 pluggable port module (PPM) slots                                    |
| • PP-4-SMR         | Patch-Panel, 4 degrees, for SMR cards                                                                  |
| • PP-MESH-4        | Patch-Panel, 4 degrees                                                                                 |

| Parameter              | Description                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| • PP-MESH-8            | Patch-Panel, 8 degrees                                                                                                     |
| • PPM-1                | Pluggable port module with 1 port SFP module                                                                               |
| • PSM                  | Protection Service Module card                                                                                             |
| • SHELF                | Shelf entity                                                                                                               |
| • SHELF-M2             | SHELF-M2                                                                                                                   |
| • SHELF-M6             | SHELF-M6                                                                                                                   |
| • STM4                 | An interface card that supports one or more STM4 (622 Mbps) optical facilities                                             |
| • STM4-4               | A four port STM4 card                                                                                                      |
| • STM4-IR-1            | An interface card that supports one intermediate range STM4 (622 Mbps) optical facilities                                  |
| • STM4-LR-1            | An interface card that supports one long range STM4 (622 Mbps) optical facilities                                          |
| • STM4-SR-1            | An interface card that supports one short range STM4 (622Mbps) optical facilities                                          |
| • STM64-4              | A four port STM64 card                                                                                                     |
| • STM64-LR-1           | An interface card that supports one or more STM64 optical facilities                                                       |
| • STM1                 | An interface card that supports multiple STM1 (155 Mbps) optical facilities                                                |
| • STM1-IR-4            | An interface card that supports four intermediate range STM1 (155 Mbps) optical facilities                                 |
| • STM1-SR-4            | An interface card that supports four short range STM1 (155 Mbps) optical facilities                                        |
| • STM1ATM-IR-6         | An interface card that supports six intermediate range STM1 (155 Mbps) asynchronous transfer mode (ATM) optical fibers     |
| • STM1IR-STM1SH-1310-8 | An STM1 card that has 8 ports over the lower speed slot of the ONS 15454 SDH with XC-VXL-10G/XC-VXL-2.5G                   |
| • STM1POS-SR-4         | An interface card that supports four short range STM1 (155 Mbps) packet-over-SDH (POS) optical facilities                  |
| • STM16                | An interface card that supports one or more STM16 (10 Gbps) optical facilities                                             |
| • STM16-AS-1           | An interface card that supports one short range OC-48 (10 Gbps) optical facilities that can be provisioned in any I/O slot |
| • STM16-ELR-1          | An interface card that supports one short range STM16 (2.5 Gbps) optical facility                                          |
| • STM16-IR-1           | An interface card that supports one intermediate range STM16 (10 Gbps) optical facility                                    |
| • STM16-LR-1           | An interface card that supports one long range STM16 (10 Gbps) optical facility                                            |
| • STM16-SR-1           | An interface card that supports one short range STM16 (10 Gbps) optical facilities                                         |

| Parameter       | Description                                 |
|-----------------|---------------------------------------------|
| • TCC           | Timing, Communications, and Control card    |
| • TDC-CC        | Coarse tunable dispersion compensation unit |
| • TDC-FC        | Fine tunable dispersion compensation unit   |
| • TNC           | Transport Node Controller card              |
| • TSC           | Transport Shelf Controller card             |
| • TXP-MR-10G    | 10G Multirate Transponder card              |
| • TXP-MR-2.5G   | Multirate 2.5G Unprotected                  |
| • TXPP-MR-2.5G  | Multirate 2.5G Protected                    |
| • UNKNOWN       | Unknown equipment type                      |
| • UNPROVISIONED | Unprovisioned equipment type                |
| • XC-VXC-10G    | XC-VXC-10G cross-connect card               |
| • XCVXL-10G     | XC-VXL-10G cross-connect card               |
| • XCVXL-2.5G    | XC-VXL-2.5G cross-connect card              |

## 17.2 REPT ALM BITS

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Building Integrated Timing Supply (REPT ALM BITS) message reports an alarm condition on a BITS facility.

### Usage Guidelines

None

### Category

Synchronization

### Security

Retrieve

### Output Format

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

### Output Example

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM BITS
"BITS-1:MJ,SYNC,SA,08-01,14-25-59,,\“LOSS OF TIMING\”"
;
```

**Output Parameters**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>      | Access identifier from the <a href="#">“26.6 BITS” section on page 26-21</a> .                                                                                                                                                                                                                                                                                                                                             |
| <NTFCNCDE> | Two-letter notification code. The parameter type is NOTIF_CODE, the two-character notification code associated with an autonomous message.                                                                                                                                                                                                                                                                                 |
| • CL       | The condition causing the alarm has cleared.                                                                                                                                                                                                                                                                                                                                                                               |
| • CR       | A critical alarm.                                                                                                                                                                                                                                                                                                                                                                                                          |
| • MJ       | A major alarm.                                                                                                                                                                                                                                                                                                                                                                                                             |
| • MN       | A minor alarm.                                                                                                                                                                                                                                                                                                                                                                                                             |
| • NA       | The condition is not alarmed.                                                                                                                                                                                                                                                                                                                                                                                              |
| • NR       | The alarm is not reported.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <CONDTYPE> | The condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <OCDAT>    | (Optional) Date                                                                                                                                                                                                                                                                                                                                                                                                            |
| <OCDTM>    | (Optional) Time                                                                                                                                                                                                                                                                                                                                                                                                            |
| <SRVEFF>   | The effect on service caused by the standing alarm or condition. The parameter type is SERV_EFF, which is the effect of the alarm on service.                                                                                                                                                                                                                                                                              |
| • NSA      | The condition is non-service affecting.                                                                                                                                                                                                                                                                                                                                                                                    |
| • SA       | The condition is service affecting.                                                                                                                                                                                                                                                                                                                                                                                        |
| <LOCN>     | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place.                                                                                                                                                                                                                 |
| • FEND     | Action occurs on the far end of the facility.                                                                                                                                                                                                                                                                                                                                                                              |
| • NEND     | Action occurs on the near end of the facility.                                                                                                                                                                                                                                                                                                                                                                             |
| <DIRN>     | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                                                                                                                                                                                                                                           |
| • BTH      | Both transmit and receive directions                                                                                                                                                                                                                                                                                                                                                                                       |
| • RCV      | Receive direction only                                                                                                                                                                                                                                                                                                                                                                                                     |
| <DESC>     | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |

## 17.3 REPT ALM COM

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Common (REPT ALM COM) message reports an alarm condition when an AID cannot be given. For example, a fan failure is reported using this message.

**Usage Guidelines**

None

**Category** Fault

**Security** Retrieve

**Output Format**

```

SID DATE TIME
** ATAG REPT ALM COM
“[<AID>]:<NTFCNCDE>,<CONDTYPE>,<SRVEFF>,[<OCRDAT>],[<OCRTM>],[<LOCN>],
[<DIRN>]:[<DESC>]”
;

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM COM
“COM:MJ,FAN,NSA,08-01,14-25-59,,:“FAN FAILURE””
;

```

|                          |            |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Output Parameters</b> | <AID>      | (Optional) Access identifier. Identifies the entity to which the command pertains. Indicates an alarm without AID. AID is a string.                                                                                                                                                                                                                                                                                 |
|                          | <NTFCNCDE> | Two-letter notification code. The parameter type is NOTIF_CODE, which is the two-character notification code associated with an autonomous message.                                                                                                                                                                                                                                                                 |
|                          | • CL       | The condition causing the alarm has cleared.                                                                                                                                                                                                                                                                                                                                                                        |
|                          | • CR       | A critical alarm.                                                                                                                                                                                                                                                                                                                                                                                                   |
|                          | • MJ       | A major alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
|                          | • MN       | A minor alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
|                          | • NA       | The condition is not alarmed.                                                                                                                                                                                                                                                                                                                                                                                       |
|                          | • NR       | The alarm is not reported.                                                                                                                                                                                                                                                                                                                                                                                          |
|                          | <CONDTYPE> | The condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
|                          | <OCRDAT>   | (Optional) Date                                                                                                                                                                                                                                                                                                                                                                                                     |
|                          | <OCRTM>    | (Optional) Time                                                                                                                                                                                                                                                                                                                                                                                                     |
|                          | <SRVEFF>   | The effect on service caused by the standing alarm or condition. The parameter type is SERV_EFF, which is the effect of the alarm on service.                                                                                                                                                                                                                                                                       |
|                          | • NSA      | The condition is non-service affecting.                                                                                                                                                                                                                                                                                                                                                                             |
|                          | • SA       | The condition is service affecting.                                                                                                                                                                                                                                                                                                                                                                                 |

|        |                                                                                                                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <LOCN> | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place. |
| • FEND | Action occurs on the far end of the facility.                                                                                                                                                              |
| • NEND | Action occurs on the near end of the facility.                                                                                                                                                             |
| <DIRN> | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                           |
| • BTH  | Both transmit and receive directions                                                                                                                                                                       |
| • RCV  | Receive direction only                                                                                                                                                                                     |
| <DESC> | (Optional) Condition description.                                                                                                                                                                          |

## 17.4 REPT ALM ENV

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Environment (REPT ALM ENV) message reports a customer-defined condition on an environmental alarm input.

### Usage Guidelines

None

### Category

Environment

### Security

Retrieve

### Output Format

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

### Output Example

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM ENV
"ENV-IN-1:MJ,OPENDR,08-01,14-25-59,\"OPEN DOOR\""
;
```

### Output Parameters

|            |                                                                                                                                                   |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>      | Access identifier from the <a href="#">“26.14 ENV” section on page 26-37</a> . Identifies an environmental input.                                 |
| <NTFCNCDE> | Two-letter notification code. The parameter type is NOTIF_CODE, which is a two-character notification code associated with an autonomous message. |

|             |                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------|
| • CL        | The condition causing the alarm has cleared.                                                                   |
| • CR        | A critical alarm.                                                                                              |
| • MJ        | A major alarm.                                                                                                 |
| • MN        | A minor alarm.                                                                                                 |
| • NA        | The condition is not alarmed.                                                                                  |
| • NR        | The alarm is not reported.                                                                                     |
| <ALMTYPE>   | Abbreviated code identifying the alarm. The parameter type is ENV_ALM, which is the environmental alarm types. |
| • AIRCOMPR  | Air compressor failure                                                                                         |
| • AIRCOND   | Air conditioning failure                                                                                       |
| • AIRDRYR   | Air dryer failure                                                                                              |
| • BATDSCHRG | Battery discharging                                                                                            |
| • BATTERY   | Battery failure                                                                                                |
| • CLFAN     | Cooling fan failure                                                                                            |
| • CPMajor   | Centralized power major failure                                                                                |
| • CPMinor   | Centralized power minor failure                                                                                |
| • ENGINE    | Engine failure                                                                                                 |
| • ENGOPRG   | Engine operating                                                                                               |
| • ENGTRANS  | Standby engine transfer                                                                                        |
| • EXPLGS    | Explosive gas                                                                                                  |
| • FIRDETR   | Fire detector failure                                                                                          |
| • FIRE      | Fire                                                                                                           |
| • FLOOD     | Flood                                                                                                          |
| • FUELLEAK  | Fuel leak                                                                                                      |
| • FUSE      | Fuse failure                                                                                                   |
| • GASALARM  | Explosive gas, toxic gas, ventilation fail, or gas monitor fail                                                |
| • HATCH     | Controlled Environment Vault (CEV) hatch fail                                                                  |
| • GEN       | Generator failure                                                                                              |
| • HIAIR     | High airflow                                                                                                   |
| • HIHUM     | High humidity                                                                                                  |
| • HITEMP    | High temperature                                                                                               |
| • HIWTR     | High water                                                                                                     |
| • INTRUDER  | Intrusion                                                                                                      |
| • LEVELCON  | Level converter                                                                                                |
| • LVDADSL   | Secondary ADSL low voltage disconnect                                                                          |
| • LVDBYPAS  | Low voltage disconnect bypass                                                                                  |
| • LWBATVG   | Low battery voltage                                                                                            |
| • LWFUEL    | Low fuel                                                                                                       |
| • LWHUM     | Low humidity                                                                                                   |
| • LWPRES    | Low cable pressure                                                                                             |
| • LWTEMP    | Low temperature                                                                                                |
| • LWWTR     | Low water                                                                                                      |

|              |                                                                                                                                                                                                            |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • MISC       | Miscellaneous                                                                                                                                                                                              |
| • OPENDR     | Open door                                                                                                                                                                                                  |
| • POWER      | Commercial power failure                                                                                                                                                                                   |
| • PUMP       | Pump failure                                                                                                                                                                                               |
| • PWR-48     | 48 V power supply failure                                                                                                                                                                                  |
| • PWR-139    | –139 V power converter                                                                                                                                                                                     |
| • PWR-190    | –190 V power converter                                                                                                                                                                                     |
| • PWRMJ      | Power supply major                                                                                                                                                                                         |
| • PWRMN      | Power supply minor                                                                                                                                                                                         |
| • RECT       | Rectifier failure                                                                                                                                                                                          |
| • RECTHI     | Rectifier high voltage                                                                                                                                                                                     |
| • RECTLO     | Rectifier low voltage                                                                                                                                                                                      |
| • RINGGENMJ  | Ring generator major                                                                                                                                                                                       |
| • RINGGENMN  | Ring generator minor                                                                                                                                                                                       |
| • RTACADSL   | AC or AC/rectifier power fail ADSL equipment                                                                                                                                                               |
| • RTACCRIT   | AC or AC/rectifier power fail DCL equipment critical site                                                                                                                                                  |
| • RTACPWR    | AC or AC/rectifier power fail DCL equipment                                                                                                                                                                |
| • RTACPWRENG | Commercial AC fail, site equipped with standby engine                                                                                                                                                      |
| • RTBAYPWR   | AC power loss distributed power RT bay                                                                                                                                                                     |
| • RTRVENG    | Retrieve standby engine, commercial AC restored                                                                                                                                                            |
| • SMOKE      | Smoke                                                                                                                                                                                                      |
| • TEMP       | High-low temperature                                                                                                                                                                                       |
| • TOXICGAS   | Toxic gas                                                                                                                                                                                                  |
| • TREPEATER  | T-repeater shelf                                                                                                                                                                                           |
| • VENTN      | Ventilation system failure                                                                                                                                                                                 |
| <OCRDAT>     | (Optional) Date.                                                                                                                                                                                           |
| <OCTM>       | (Optional) Time.                                                                                                                                                                                           |
| <LOCN>       | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place. |
| • FEND       | Action occurs on the far end of the facility.                                                                                                                                                              |
| • NEND       | Action occurs on the near end of the facility.                                                                                                                                                             |
| <DIRN>       | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                           |
| • BTH        | Both transmit and receive directions                                                                                                                                                                       |
| • RCV        | Receive direction only                                                                                                                                                                                     |
| <DESC>       | (Optional) Condition description.                                                                                                                                                                          |

## 17.5 REPT ALM LMP

(Cisco ONS 15454) The Report Alarm Link Management Protocol (REPT ALM LMP) is the autonomous message which is used to report the LMP-FAIL alarms for the control channels and traffic engineering (TE) links.

### Usage Guidelines

None

### Category

Fault

### Security

Retrieve

### Output Format

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

### Output Example

```
va454-5 1998-06-20 14:30:00
A 814.812 REPT ALM LMP
  "CTRL-1:MJ,LMP-FAIL,NSA,08-01,14-25-59,,"LMP Failure\","
;
```

### Output Parameters

|                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>                                                        | The LMP control channel AID values.                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>CTRL-ALL</li> </ul>   | Specifies all the control channels.                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>CTRL-{1-4}</li> </ul> | Specifies an individual control channel.                                                                                                                                                                                                                                                                                                                                                                            |
| <NTFCNCDE>                                                   | The two-character notification code associated with an autonomous message.                                                                                                                                                                                                                                                                                                                                          |
| <ul style="list-style-type: none"> <li>CL</li> </ul>         | The condition causing the alarm has cleared.                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>CR</li> </ul>         | A critical alarm.                                                                                                                                                                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>MJ</li> </ul>         | A major alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>MN</li> </ul>         | A minor alarm.                                                                                                                                                                                                                                                                                                                                                                                                      |
| <ul style="list-style-type: none"> <li>NA</li> </ul>         | The condition is not alarmed.                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>NR</li> </ul>         | The condition is not reported.                                                                                                                                                                                                                                                                                                                                                                                      |
| <CONDTYPE>                                                   | The condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |

|          |                                                                                                                                                                                                            |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <SRVEFF> | Indicates the effect of the alarm on service.                                                                                                                                                              |
| • NSA    | The condition is non-service affecting.                                                                                                                                                                    |
| • SA     | The condition is service affecting.                                                                                                                                                                        |
| <OCRDAT> | (Optional) Date (YYYY-MM-DD)                                                                                                                                                                               |
| <OCRTM>  | (Optional) Time (HH:MM:SS)                                                                                                                                                                                 |
| <LOCN>   | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place. |
| • FEND   | Action occurs on the far end of the facility.                                                                                                                                                              |
| • NEND   | Action occurs on the near end of the facility.                                                                                                                                                             |
| <DIRN>   | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                           |
| • BTH    | Both transmit and receive directions                                                                                                                                                                       |
| • RCV    | Receive direction only                                                                                                                                                                                     |
| <DESC>   | The condition description.                                                                                                                                                                                 |

## 17.6 REPT ALM EQPT

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Equipment (REPT ALM EQPT) message reports an alarm condition against an equipment unit or slot.

### Usage Guidelines

None

### Category

Equipment

### Security

Retrieve

### Output Format

```
SID DATE TIME
** ATAG REPT ALM EQPT
"<AID>:<NTFCNCDE>,<CONDITION>,<SRVEFF>,<OCRDAT>,<OCRTM>,<LOCN>,<DIRN>,<DESC>,<AIDDET>"
;
```

### Output Example

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM EQPT
"SLOT-7:MJ,CONTR,NSA,08-01,14-25-59,NEND,RCV:\"CONTROLLER FAILURE\",TSC"
;
```

**Output Parameters**

| Parameter          | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>              | Access identifier from the <a href="#">“26.15 EQPT”</a> section on <a href="#">page 26-37</a> . Equipment AID SLOT-{1-17}.                                                                                                                                                                                                                                                                                                 |
| <NTFCNCDE>         | Two-letter notification code. The parameter type is NO-TIF_CODE, which is a two-character notification code associated with an autonomous message.                                                                                                                                                                                                                                                                         |
| • CL               | The condition causing the alarm has cleared.                                                                                                                                                                                                                                                                                                                                                                               |
| • CR               | A critical alarm.                                                                                                                                                                                                                                                                                                                                                                                                          |
| • MJ               | A major alarm.                                                                                                                                                                                                                                                                                                                                                                                                             |
| • MN               | A minor alarm.                                                                                                                                                                                                                                                                                                                                                                                                             |
| • NA               | The condition is not alarmed.                                                                                                                                                                                                                                                                                                                                                                                              |
| • NR               | The alarm is not reported.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <CONDITION>        | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed conditions (NA), and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <SRVEFF>           | The effect on service caused by the standing alarm or condition. The parameter type is SERV_EFF, which is the effect of the alarm on service.                                                                                                                                                                                                                                                                              |
| • NSA              | The condition is non-service affecting.                                                                                                                                                                                                                                                                                                                                                                                    |
| • SA               | The condition is service affecting.                                                                                                                                                                                                                                                                                                                                                                                        |
| <OCRDAT>           | (Optional) Date                                                                                                                                                                                                                                                                                                                                                                                                            |
| <OCRTM>            | (Optional) Time                                                                                                                                                                                                                                                                                                                                                                                                            |
| <DESC>             | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |
| <AIDDET>           | (Optional) AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot.                                                                                                                                                                                  |
| • 15216-MD-40-EVEN | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid                                                                                                                                                                                                                                                                                                                                                  |
| • 15216-MD-40-ODD  | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid                                                                                                                                                                                                                                                                                                                                                   |
| • 15216-MD-ID-50   | Thermal Interleaver Passive Unit, spaced at 50 GHz grid                                                                                                                                                                                                                                                                                                                                                                    |
| • 32DMX-L          | 3- channel demultiplexer for L-band                                                                                                                                                                                                                                                                                                                                                                                        |
| • 32WSS-L          | 32-channel wavelength switch selector for L-band                                                                                                                                                                                                                                                                                                                                                                           |
| • 40G-MXP-C        | 40 Gbit/Sec Multirate Muxponder                                                                                                                                                                                                                                                                                                                                                                                            |
| • 40-SMR1-C        | The single module 40-channel ROADM on C-band                                                                                                                                                                                                                                                                                                                                                                               |
| • 40-SMR2-C        | The single module 40-channel ROADM with EDFA on C-band                                                                                                                                                                                                                                                                                                                                                                     |
| • 40G-TXP-C        | 40 Gigabits per second Multirate Transponder                                                                                                                                                                                                                                                                                                                                                                               |
| • 80-WXC-C         | 80-channel wavelength cross-connect spaced at 100 GHz grid                                                                                                                                                                                                                                                                                                                                                                 |

| Parameter          | Description                                                      |
|--------------------|------------------------------------------------------------------|
| • AD-1B            | OADM 1-Band Filter                                               |
| • AD-1C            | OADM 1-Channel Filter                                            |
| • AD-2C            | OADM 2-Channel Filter                                            |
| • AD-4B            | OADM 4-Band Filter                                               |
| • AD-4C            | OADM 4-Channel Filter                                            |
| • ADM-10G          | 12 x OC3/OC12/OC48/GIGE and OC192/Trunk ADM 10 Gbit/Sec.         |
| • AICI             | AIC-I card                                                       |
| • AIP              | Alarm Indication Panel                                           |
| • ALM-PWR          | Alarm Power                                                      |
| • ASAP-4           | ASAP carrier card with four PIM slots                            |
| • BP               | The backplane of the NE                                          |
| • CE-100T-8        | 8-port 100T card                                                 |
| • CE-1000-4        | 4-port GIGE mapper card                                          |
| • CRFT-TMG         | Craft Timing                                                     |
| • DCC              | Data Communications Channel                                      |
| • DCU              | Dispersion Compensation Unit                                     |
| • DMX-32           | Optical DMX 32 Channels                                          |
| • DS3i-N-12        | DS3i-N-12 card                                                   |
| • E1-21-DS3-E3-3   | 15310 MA SDH E1, E3, DS3 card                                    |
| • E1-63-DS3-E3-3   | 15310 MA SDH E1, E3, DS3 card                                    |
| • E1               | E1 card                                                          |
| • E1-42            | 42-port E1 card                                                  |
| • E1000T-2         | 2-port interface card supporting 1000BaseT Ethernet facilities   |
| • E100T-12         | 12-port interface card supporting 100BaseT Ethernet facilities   |
| • E100T-4          | Four-port interface card supporting 100BaseT Ethernet facilities |
| • E1N              | E1N card                                                         |
| • E3               | E3 card                                                          |
| • FILLER_CARD      | Filler card                                                      |
| • FMEC-155E-1TO1   | The equipment type for FMEC STM1E12 card                         |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection     |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection      |
| • FMEC-SMZ-E1      | FMEC card corresponding to E1 card                               |
| • FMEC-SMZ-E3      | FMEC card corresponding to E3 card                               |
| • FTA              | Fan Tray of the NE                                               |
| • FTA1             | Fan Tray 1 of the NE                                             |
| • FTA2             | Fan Tray 2 of the NE                                             |

| Parameter      | Description                                                                                            |
|----------------|--------------------------------------------------------------------------------------------------------|
| • G1K-4        | G1K-4 card                                                                                             |
| • MD-4         | Optical Multiplexer/Demultiplexer with 4 Channels                                                      |
| • MESH-PP-SMR  | The passive unit Patch Panel device used to connect up to four 40-SMR2-C cards                         |
| • ML100X-8     | 8-port 100X card with optical interface                                                                |
| • ML-100T-8    | 8-port 100T card with optical interface                                                                |
| • MMU          | Multiring mesh upgrade unit                                                                            |
| • MS-ISC-100T  | Fast Ethernet switch card used for internal shelf connection                                           |
| • MUX-32       | Optical MUX 32 Channels                                                                                |
| • MXP-2.5G-10G | 10G (4 * 2.5G) Muxponder card                                                                          |
| • MXP-MR-10DME | 10 Gbps datamux with enhanced FEC                                                                      |
| • OPT-AMP-L    | Optical preamplifier for L-band                                                                        |
| • OPT-BST      | Optical booster amplifier                                                                              |
| • OPT-BST-L    | Optical booster for L-band                                                                             |
| • OPT-PRE      | Optical Preamplifier                                                                                   |
| • OPT-RAMP-C   | Raman pump amplifier C-band                                                                            |
| • OPT-RAMP-CE  | An extended version of Raman pump amplifier                                                            |
| • OPT-RAMP-E   | Raman pump amplifier E-band                                                                            |
| • OSC-CSM      | Optical Service Channel with Combiner/Separator Module                                                 |
| • OSCM         | Optical Service Channel Module                                                                         |
| • OTU2-XP      | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64 |
| • PIM-4        | Pluggable interface module with 4 PPM slots                                                            |
| • PP-4-SMR     | Patch-Panel, 4 degrees, for SMR cards                                                                  |
| • PP-MESH-4    | Patch-Panel, 4 degrees                                                                                 |
| • PP-MESH-8    | Patch-Panel, 8 degrees                                                                                 |
| • PPM-1        | Pluggable port module with 1-port SFP module                                                           |
| • PSM          | Protection Service Module card                                                                         |
| • SHELF        | Shelf entity                                                                                           |
| • SHELF-M2     | SHELF-M2                                                                                               |
| • SHELF-M6     | SHELF-M6                                                                                               |
| • STM4         | An interface card that supports one or more STM4 (622 Mbps) optical facilities                         |
| • STM4-4       | A four port STM4 card                                                                                  |
| • STM4-IR-1    | An interface card that supports one intermediate range STM4 (622 Mbps) optical facilities              |
| • STM4-LR-1    | An interface card that supports one long range STM4 (622 Mbps) optical facilities                      |
| • STM4-SR-1    | An interface card that supports one short range STM4 (622 Mbps) optical facilities                     |
| • STM64-4      | A four port STM64 card                                                                                 |

| Parameter              | Description                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| • STM64-LR-1           | An interface card that supports one or more STM64 optical facilities                                                       |
| • STM1                 | An interface card that supports multiple STM1 (155 Mbps) optical facilities                                                |
| • STM1-IR-4            | An interface card that supports four intermediate range STM1 (155 Mbps) optical facilities                                 |
| • STM1-SR-4            | An interface card that supports four short range STM1 (155 Mbps) optical facilities                                        |
| • STM1ATM-IR-6         | An interface card that supports six intermediate range STM1 (155 Mbps) ATM optical fibers                                  |
| • STM1IR-STM1SH-1310-8 | An STM1 card which has 8 ports over the lower speed slot of the ONS 15454 with XC-VXL-10G/XC-VXL-2.5G                      |
| • STM1POS-SR-4         | An interface card that supports four short range STM1 (155 Mbps) POS optical facilities                                    |
| • STM16                | An interface card that supports one or more STM16 (10 Gbps) optical facilities                                             |
| • STM16-AS-1           | An interface card that supports one short range OC-48 (10 Gbps) optical facilities that can be provisioned in any I/O slot |
| • STM16-ELR-1          | An interface card that supports one short range STM16 (2.5 Gbps) optical facility                                          |
| • STM16-IR-1           | An interface card that supports one intermediate range STM16 (10 Gbps) optical facility                                    |
| • STM16-LR-1           | An interface card that supports one long range STM16 (10 Gbps) optical facility                                            |
| • STM16-SR-1           | An interface card that supports one short range STM16 (10 Gbps) optical facilities                                         |
| • TCC                  | Timing, Communications, and Control card                                                                                   |
| • TDC-CC               | Coarse tunable dispersion compensation unit                                                                                |
| • TDC-FC               | Fine tunable dispersion compensation unit                                                                                  |
| • TNC                  | Transport Node Controller card                                                                                             |
| • TSC                  | Transport Shelf Controller card                                                                                            |
| • TXP-MR-10G           | 10G Multirate Transponder card                                                                                             |
| • TXP-MR-2.5G          | Multirate 2.5G Unprotected                                                                                                 |
| • TXPP-MR-2.5G         | Multirate 2.5G Protected                                                                                                   |
| • UNKNOWN              | Unknown equipment type                                                                                                     |
| • UNPROVISIONED        | Unprovisioned equipment type                                                                                               |
| • XC-VXC-10G           | XC-VXC-10G cross-connect card                                                                                              |
| • XCVXL-10G            | XC-VXL-10G cross-connect card                                                                                              |
| • XCVXL-2.5G           | XC-VXL-2.5G cross-connect card                                                                                             |

## 17.7 REPT ALM SECU

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Security (REPT ALM SECU) reports the occurrence of an alarmed security event against the NE.

### Usage Guidelines

Based on TR-NWT-000835, the AID of the security alarm should be the connection identifier (CID) that is not currently supported.

The COM or user identifier (UID) is an acceptable substitute for the AID.



#### Note

The INTRUSION-PSWD condition is the only condition that is reported as a standing condition instead of a transient condition. It defaults to NA and is reported by the REPT EVT SECU message. However, it can be reprovisioned to be reported at a higher severity. If the severity of this alarm is higher than NA, it is reported by the REPT ALM SECU message.

### Category

Security

### Security

Superuser

### Output Format

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

### Output Example

```
TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM SECU
"COM:CR,INTRUSION-PSWD"
;
```

### Output Parameters

|             |                                                                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>       | Access identifier. Identifies an entity with the condition. Defaults to COM. AID is a string.                                                     |
| <NOTIFCODE> | Two-letter notification code. The parameter type is NOTIF_CODE, which is a two-character notification code associated with an autonomous message. |
| • CL        | The condition causing the alarm has cleared.                                                                                                      |
| • CR        | A critical alarm.                                                                                                                                 |
| • MJ        | A major alarm.                                                                                                                                    |
| • MN        | A minor alarm.                                                                                                                                    |
| • NA        | The condition is not alarmed.                                                                                                                     |
| • NR        | The alarm is not reported.                                                                                                                        |

|                  |                                                                                                                                                                                 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <SECUALMTYPE>    | Security alarm type. It is a subset of the CONDITION type. In this release, the only allowable type is INTRUSION-PSWD. The parameter type is SECUALMTYPE (security alarm type). |
| • INTRUSION-PSWD | Condition raised after an invalid password is used during login. This condition is raised only if the password is used a specific number of times.                              |

## 17.8 REPT ALM SYNCN

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Alarm Synchronization (REPT ALM SYNCN) message reports an alarm condition against a synchronization reference.

**Usage Guidelines** None

**Category** Synchronization

**Security** Retrieve

**Output Format**

```

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

**Output Example**

```

TID-000 1998-06-20 14:30:00
** 100.100 REPT ALM SYNCN
"SYNC-NE:MJ,MAN,SA,08-01,14-25-59,;:"MANUAL SWITCH",TCC"
;
```

|                          |            |                                                                                                                                                 |
|--------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Output Parameters</b> | <AID>      | Access identifier from the <a href="#">“26.30 SYNC_REF”</a> section on page 26-59. Identifies a synchronization reference with alarm condition. |
|                          | <NTFCNCDE> | Notification code. The parameter type is NOTIF_CODE, which is a two-character notification code associated with an autonomous message.          |
|                          | • CL       | The condition causing the alarm has cleared.                                                                                                    |
|                          | • CR       | A critical alarm.                                                                                                                               |
|                          | • MJ       | A major alarm.                                                                                                                                  |
|                          | • MN       | A minor alarm.                                                                                                                                  |
|                          | • NA       | The condition is not alarmed.                                                                                                                   |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • NR               | The alarm is not reported.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <CONDTYPE>         | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed (NA) conditions, and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <SRVEFF>           | The effect on service caused by the standing alarm or condition. The parameter type is SERV_EFF, which is the effect of the alarm on service.                                                                                                                                                                                                                                                                              |
| • NSA              | The condition is non-service affecting.                                                                                                                                                                                                                                                                                                                                                                                    |
| • SA               | The condition is service affecting.                                                                                                                                                                                                                                                                                                                                                                                        |
| <OCRDAT>           | (Optional) Date                                                                                                                                                                                                                                                                                                                                                                                                            |
| <OCRTM>            | (Optional) Time                                                                                                                                                                                                                                                                                                                                                                                                            |
| <DESC>             | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |
| <EQPTTYPE>         | (Optional) The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot.                                                                                                                                                                                                                                                                                                                  |
| • 10GE-XP          | (ONS 15454) 2 x 10 Gbps. muxponder/L2 ethernet switch card                                                                                                                                                                                                                                                                                                                                                                 |
| • 15216-MD-40-EVEN | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid                                                                                                                                                                                                                                                                                                                                                  |
| • 15216-MD-40-ODD  | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid                                                                                                                                                                                                                                                                                                                                                   |
| • 15216-MD-ID-50   | Thermal Interleaver Passive Unit, spaced at 50 GHz grid                                                                                                                                                                                                                                                                                                                                                                    |
| • 32-DMX           | (ONS 15454) 32 channel optical demultiplexer                                                                                                                                                                                                                                                                                                                                                                               |
| • 32-DMX-L         | (ONS 15454) 32 channel optical demultiplexer for L-band                                                                                                                                                                                                                                                                                                                                                                    |
| • 32-DMX-O         | (ONS 15454) 32 channel unidirectional optical demultiplexer<br>This overrides the old equipment type DMX-32 present in the 4.6 and earlier releases.                                                                                                                                                                                                                                                                       |
| • 32-MUX-O         | (ONS 15454) 32 channel unidirectional optical multiplexer<br>This overrides the old equipment type MUX-32 present in the 4.6 and earlier releases.                                                                                                                                                                                                                                                                         |
| • 32-WSS           | (ONS 15454) 32 channel optical wavelength selective switch for C Band                                                                                                                                                                                                                                                                                                                                                      |
| • 40-DMX-C         | (ONS 15454) 40 channel optical demultiplexer for C Band                                                                                                                                                                                                                                                                                                                                                                    |
| • 40-MUX-C         | (ONS 15454) 40 channel optical multiplexer for C Band                                                                                                                                                                                                                                                                                                                                                                      |
| • 40G-MXP-C        | 40 Gbit/Sec Multirate Muxponder                                                                                                                                                                                                                                                                                                                                                                                            |
| • 40-SMR1-C        | The single module 40-channel ROADM on C-band                                                                                                                                                                                                                                                                                                                                                                               |
| • 40-SMR2-C        | The single module 40-channel ROADM with EDFA on C-band                                                                                                                                                                                                                                                                                                                                                                     |
| • 40G-TXP-C        | 40 Gigabits per second Multirate Transponder                                                                                                                                                                                                                                                                                                                                                                               |
| • 40-WSS-C         | (ONS 15454) 40 channel optical wavelength switch selector for C Band                                                                                                                                                                                                                                                                                                                                                       |

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| • 40-WXC-C         | (ONS 15454) 40 channel optical wavelength cross-connect/wavelength router for C Band |
| • 80-WXC-C         | 80-channel wavelength cross-connect spaced at 100 GHz grid                           |
| • AD-1B            | (ONS 15454) Optical add/drop multiplexed (OADM) 1 band filter                        |
| • AD-1C            | (ONS 15454) Optical add/drop multiplexed (OADM) 1 channel filter                     |
| • AD-2C            | (ONS 15454) Optical add/drop multiplexed (OADM) 2 channels filter                    |
| • AD-4B            | (ONS 15454) Optical add/drop multiplexed (OADM) 4 bands filter                       |
| • AD-4C            | (ONS 15454) Optical add/drop multiplexed (OADM) 4 channels filter                    |
| • ADM-10G          | (ONS 15454) 16 x OC3/OC12/OC48/GIGE and OC192/Trunk ADM 10 Gbps card                 |
| • AIC              | (ONS 15454) AIC card                                                                 |
| • AICI             | (ONS 15454) AICI Card                                                                |
| • ASAP-4           | Any service any port (ASAP) carrier card with four PIM slots                         |
| • CE-1000-4        | (ONS 15454) Modena mapper card                                                       |
| • CE-100T-8        | (ONS 15454 and ONS 15310-MA) Exige/Elise mapper card                                 |
| • CE-MR-10         | (ONS 15454, ONS 15454) Lotus20g ce2 card                                             |
| • CTX-2500         | (ONS 15310-MA)CTX card                                                               |
| • CXC              | Cross connect card                                                                   |
| • DCU              | Dispersion Compensation Unit                                                         |
| • DS1-28-DS3-EC1-3 | (ONS 15310-MA) DS1-28-DS3-EC1-3 card                                                 |
| • DS1-84-DS3-EC1-3 | (ONS 15310-MA) DS1-84-DS3-EC1-3 card                                                 |
| • DS1-E1-56        | (ONS 15454) DS1-E1-56 card                                                           |
| • DS1I             | (ONS 15454) DS1I card                                                                |
| • DS1N             | (ONS 15454) DS1N card                                                                |
| • DS3              | (ONS 15454) DS3 card                                                                 |
| • E1-21-DS3-E3-3   | E1-21-DS3-E3-3                                                                       |
| • E1-63-DS3-E3-3   | E1-63-DS3-E3-3                                                                       |
| • FMEC-155E-1TO1   | The equipment type for FMEC STM1E12 card                                             |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection                         |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection                          |
| • CE-100T-8        | CE-100T-8                                                                            |
| • MESH-PP-SMR      | The passive unit Patch Panel device used to connect up to four 40-SMR2-C cards       |
| • OPT-RAMP-C       | Raman pump amplifier C-band                                                          |
| • OPT-RAMP-CE      | An extended version of Raman pump amplifier                                          |

|                |                                                                                                        |
|----------------|--------------------------------------------------------------------------------------------------------|
| • OPT-RAMP-E   | Raman pump amplifier E-band                                                                            |
| • OSCM         | (ONS 15454) Optical service channel (OSC) module                                                       |
| • OTU2-XP      | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64 |
| • PIM-1        | 1-port pluggable interface module                                                                      |
| • PIM-4        | 4-port pluggable interface module                                                                      |
| • PP-4-SMR     | Patch-Panel, 4 degrees, for SMR cards                                                                  |
| • PP-MESH-4    | Patch-Panel, 4 degrees                                                                                 |
| • PP-MESH-8    | Patch-Panel, 8 degrees                                                                                 |
| • PPM-1        | (ONS 15454 and ONS 15310-MA) Pluggable port module with one SFP port                                   |
| • PSM          | Protection Service Module card                                                                         |
| • SHELF-M2     | SHELF-M2                                                                                               |
| • SHELF-M6     | SHELF-M6                                                                                               |
| • SSXC         | Cross connect card                                                                                     |
| • STM1E-12     | (ONS 15454 SDH) STM1E-12 card                                                                          |
| • TCC          | (ONS 15454) TCC card                                                                                   |
| • TDC-CC       | Coarse tunable dispersion compensation unit                                                            |
| • TDC-FC       | Fine tunable dispersion compensation unit                                                              |
| • TNC          | Transport Node Controller card                                                                         |
| • TSC          | Transport Shelf Controller card                                                                        |
| • TXP-MR-2.5G  | (ONS 15454) Rockwell multirate 2.5G unprotected                                                        |
| • TXPP-MR-2.5G | (ONS 15454) Rockwell multirate 2.5G protected                                                          |
| • XC           | (ONS 15454) XC card                                                                                    |
| • XC10G        | (ONS 15454) XC10G card                                                                                 |
| • XCVT         | (ONS 15454) XCVT card                                                                                  |
| • XCVXC-10G    | (ONS 15454) XCVXC-10G card                                                                             |
| • XCVXC-2.5G   | (ONS 15454) XCVXC-2.5G card                                                                            |
| • XCVXL-10G    | (ONS 15454) XCVXL-10G card                                                                             |
| • XCVXL-2.5G   | (ONS 15454) XCVXL-2.5G card                                                                            |

## 17.9 REPT DBCHG

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Database Change (REPT DBCHG) message reports any changes on the NE that result from:

- TL1 provisioning commands or their graphical user interface (GUI) equivalents containing the verbs ALW, DLT, ED, ENT, INH, INIT, OPR, RLS, SET, and SW (for example, DLT-EQPT, ENT-CRS-STS1)
- External event such as a board insertion

**Usage Guidelines**

- When the secondary state is changed from AINS state to any other state, no REPT DBCHG messages are generated.
- REPT DBCHG is turned off by default. To turn REPT DBCHG on, you must issue the ALW-MSG-DBCHG command.
- REPT DBCHG messages are generated every time a roll is performed. A cross-connect delete and add REPT DBCHG message will not be sent every time a roll is performed; instead a REPT DBCHG message on the roll will be sent.

**Category**

Log

**Security**

Retrieve

**Output Format**

```

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

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100 REPT DBCHG
"TIME=14-35-46,DATE=99-07-28,SOURCE=123,USERID=CISCO15,DBCHGSEQ=456:
ENT-CRS-VT1:VT1-4-1-2-6-4:::PST-PSTQ,SST"
;

```

**Output Parameters**

|            |                                                                                                                                                                                         |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <TIME>     | The time of the message triggered by the NE.                                                                                                                                            |
| <DATE>     | The date of the message triggered by the NE.                                                                                                                                            |
| <SOURCE>   | (Optional) An input-command CTAG if present. SOURCE is a string. Maximum length of 20 characters.                                                                                       |
| <USERID>   | (Optional) The user name or user identifier. USERID is a string. Maximum length of 20 characters.                                                                                       |
| <DBCHGSEQ> | Identifier or range of identifiers to be retrieved. It is a sequential number of the DBCHGSEQ message. DBCHGSEQ is an integer.                                                          |
| <COMMAND>  | The input command or substitute. Maximum length of 20 characters. COMMAND is a string.                                                                                                  |
| <AID>      | Access identifier. Maximum length of 64 characters.Excess characters will be truncated. AID is a string.                                                                                |
| <PSTPSTQ>  | Admin state in the PST-PSTQ format. The parameter type is PST_PSTQ, which is the service state of the entity described by the primary state (SST) and a primary state qualifier (PSTQ). |
| • IS-NR    | In Service and Normal                                                                                                                                                                   |
| • OOS-AU   | Out of Service and Autonomous                                                                                                                                                           |

|            |                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------|
| • OOS-AUMA | Out of Service and Autonomous Management                                                                      |
| • OOS-MA   | Out of Service and Management                                                                                 |
| <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      | Mismatched Equipment                                                                                          |
| • MT       | Maintenance                                                                                                   |
| • OOG      | Out of Group                                                                                                  |
| • SWDL     | Software Download                                                                                             |
| • UAS      | Unassigned                                                                                                    |
| • UEQ      | Unequipped                                                                                                    |

## 17.10 REPT EVT <MOD2ALM>

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event for 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, DS1, E100, E1000, E3, E4, EC1, ETH, FSTE, G1000, GFPOS, GIGE, ILK, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STM1,STM4,STM16,STM64, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, UDCDCC, UDCF, VC3, VC4, VC4-2c, VC4-3c, VC4-4c, VC4-8c, VC4-16c,VC4-64c, VC12, VCG, VT1, VT2, WLEN, or RPRIF (REPT EVT <MOD2ALM>) message reports the occurrence of a nonalarmed event. In Software Release 5.0 and later, REPT EVT <MOD2ALM> can report the remote monitoring (RMON)-managed threshold crossing alarm.

**Usage Guidelines** See [Table 28-1 on page 28-1](#) for supported modifiers by platform.

**Category** Fault

**Security** Retrieve

**Output Format**

```

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT 1GFC
  "FAC-5-1:WKSWPR,TC,,,FEND,,12,13,15-MIN:\\"WORKING SWITCH TO PROTECTION\\",
  OC48"
;
```

**Output Parameters**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>      | Access identifier from the <a href="#">“26.1 ALL” section on page 26-1</a> .                                                                                                                                                                                                                                                                                                                                               |
| <CONDTYPE> | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed (NA) conditions, and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <CONDEFF>  | (Optional) The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit.                                                                                                                                                                                                                                                                 |
| • CL       | Standing condition cleared                                                                                                                                                                                                                                                                                                                                                                                                 |
| • SC       | Standing condition raised                                                                                                                                                                                                                                                                                                                                                                                                  |
| • TC       | Transient condition                                                                                                                                                                                                                                                                                                                                                                                                        |
| <LOCN>     | (Optional) Location associated with a particular command in reference to the entity identified by the AID. The parameter type is LOCATION, which is the location where the action is to take place.                                                                                                                                                                                                                        |
| • FEND     | Action occurs on the Far End of the facility.                                                                                                                                                                                                                                                                                                                                                                              |
| • NEND     | Action occurs on the Near End of the facility.                                                                                                                                                                                                                                                                                                                                                                             |
| <DIRN>     | Direction relative to the entity identified by the AID. Direction of PM relative to the entity identified by the AID. The parameter type is DIRECTION (transmit and receive directions).                                                                                                                                                                                                                                   |
| • BTH      | Both transmit and receive directions                                                                                                                                                                                                                                                                                                                                                                                       |
| • RCV      | Receive direction only                                                                                                                                                                                                                                                                                                                                                                                                     |
| • TRMT     | Transmit direction only                                                                                                                                                                                                                                                                                                                                                                                                    |
| <MONVAL>   | (Optional) Monitored value. Value to which the register identified by MONTYPE is to be initialized to or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. MONVAL is a float.                                                                                                                                                                                              |
| <THLEV>    | (Optional) Threshold level. THLEV is a float.                                                                                                                                                                                                                                                                                                                                                                              |
| <TMPER>    | (Optional) Accumulation time period for performance counters. The parameter type is TMPER, which is the accumulation time period for the performance management center.                                                                                                                                                                                                                                                    |
| • 1-DAY    | Performance parameter accumulation interval length; every 24-hours. For SDH PM data only one day of history data is available. For RMON managed PM data seven days of history data are available.                                                                                                                                                                                                                          |

|                    |                                                                                                                                                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • 1-HR             | Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.                                                                          |
| • 1-MIN            | Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.                                                                           |
| • 15-MIN           | Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.                                                                        |
| • RAW-DATA         | Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.                                                                                   |
| <DESC>             | (Optional) Condition description.                                                                                                                                                                                                         |
| <AIDDET>           | (Optional) AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot. |
| • 15216-MD-40-EVEN | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid                                                                                                                                                                 |
| • 15216-MD-40-ODD  | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid                                                                                                                                                                  |
| • 15216-MD-ID-50   | Thermal Interleaver Passive Unit, spaced at 50 GHz grid                                                                                                                                                                                   |
| • 32DMX-L          | 32 channels demultiplexer for L-band                                                                                                                                                                                                      |
| • 32WSS-L          | 32 channels wavelength switch selector for L-band                                                                                                                                                                                         |
| • 40G-MXP-C        | 40 Gbit/Sec Multirate Muxponder                                                                                                                                                                                                           |
| • 40-SMR1-C        | The single module 40-channel ROADM on C-band                                                                                                                                                                                              |
| • 40-SMR2-C        | The single module 40-channel ROADM with EDFA on C-band                                                                                                                                                                                    |
| • 40G-TXP-C        | 40 Gigabits per second Multirate Transponder                                                                                                                                                                                              |
| • 80-WXC-C         | 80-channel wavelength cross-connect spaced at 100 GHz grid                                                                                                                                                                                |
| • AD-1B            | OADM 1-Band Filter                                                                                                                                                                                                                        |
| • AD-1C            | OADM 1-Channel Filter                                                                                                                                                                                                                     |
| • AD-2C            | OADM 2-Channel Filter                                                                                                                                                                                                                     |
| • AD-4B            | OADM 4-Band Filter                                                                                                                                                                                                                        |
| • AD-4C            | OADM 4-Channel Filter                                                                                                                                                                                                                     |
| • ADM-10G          | 12 x OC3/OC12/OC48/GIGE and OC192/Trunk ADM 10 Gbit/Sec.                                                                                                                                                                                  |
| • AICI             | AIC-I card                                                                                                                                                                                                                                |
| • AIP              | Alarm Indication Panel                                                                                                                                                                                                                    |
| • ALM-PWR          | Alarm Power                                                                                                                                                                                                                               |
| • ASAP-4           | ASAP carrier card with four PIM slots                                                                                                                                                                                                     |
| • BP               | The backplane of the NE                                                                                                                                                                                                                   |
| • CE-100T-8        | 8-port 100T card                                                                                                                                                                                                                          |
| • CE-1000-4        | 4-port GIGE mapper card                                                                                                                                                                                                                   |

|                    |                                                                                |
|--------------------|--------------------------------------------------------------------------------|
| • CRFT-TMG         | Craft Timing                                                                   |
| • DCC              | Data Communications Channel                                                    |
| • DCU              | Dispersion Compensation Unit                                                   |
| • DMX-32           | Optical DMX 32 Channels                                                        |
| • DS3i-N-12        | DS3i-N-12 card                                                                 |
| • E1-21-DS3-E3-3   | ONS 15310 MA SDH E1, E3, DS3 card                                              |
| • E1-63-DS3-E3-3   | ONS 15310 MA SDH E1, E3, DS3 card                                              |
| • E1               | E1 card                                                                        |
| • E1-42            | 42-port E1 card                                                                |
| • E1000T-2         | 2-port interface card supporting 1000BaseT Ethernet facilities                 |
| • E100T-12         | 12-port interface card supporting 100BaseT Ethernet facilities                 |
| • E100T-4          | Four-port interface card supporting 100BaseT Ethernet facilities               |
| • E1N              | E1N card                                                                       |
| • E3               | E3 card                                                                        |
| • FILLER_CARD      | Filler card                                                                    |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection                   |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection                    |
| • FMEC-SMZ-E1      | FMEC card corresponding to E1 card                                             |
| • FMEC-SMZ-E3      | FMEC card corresponding to E3 card                                             |
| • FTA              | Fan Tray of the NE                                                             |
| • FTA1             | Fan Tray 1 of the NE                                                           |
| • FTA2             | Fan Tray 2 of the NE                                                           |
| • G1K-4            | G1K-4 card                                                                     |
| • MD-4             | Optical Multiplexer/Demultiplexer with 4 Channels                              |
| • MESH-PP-SMR      | The passive unit Patch Panel device used to connect up to four 40-SMR2-C cards |
| • ML100X-8         | 8-port 100T card with optical interface                                        |
| • ML-100T-8        | (Cisco ONS 15310 MA and Cisco ONS 15454) Exige/Elise mapper card               |
| • MMU              | Multiring mesh upgrade unit                                                    |
| • MS-ISC-100T      | Fast Ethernet switch card used for internal shelf connection                   |
| • MUX-32           | Optical MUX 32 Channels                                                        |
| • MXP-2.5G-10G     | 10G (4 * 2.5G) Muxponder card                                                  |
| • MXP-MR-10DME     | 10 Gbps datamux with enhanced FEC                                              |
| • OPT-AMP-L        | Optical preamplifier for L-band                                                |
| • OPT-BST          | Optical booster amplifier                                                      |
| • OPT-BST-L        | Optical booster for L-band                                                     |
| • OPT-PRE          | Optical Preamplifier                                                           |

|                        |                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| • OPT-RAMP-C           | Raman Pump Amplifier C Band                                                                                                |
| • OPT-RAMP-CE          | An extended version of Raman pump amplifier                                                                                |
| • OPT-RAMP-E           | Raman pump amplifier E-band                                                                                                |
| • OSC-CSM              | Optical Service Channel with Combiner/Separator Module                                                                     |
| • OSCM                 | Optical Service Channel Module                                                                                             |
| • OTU2-XP              | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64                     |
| • PIM-4                | Pluggable interface module with 4 PPM slots                                                                                |
| • PP-4-SMR             | Patch-Panel, 4 degrees, for SMR cards                                                                                      |
| • PP-MESH-4            | Patch-Panel, 4 degrees                                                                                                     |
| • PP-MESH-8            | Patch-Panel, 8 degrees                                                                                                     |
| • PPM-1                | Pluggable port module with 1-port SFP module                                                                               |
| • PSM                  | Protection Service Module card                                                                                             |
| • SHELF                | Shelf entity                                                                                                               |
| • SHELF-M2             | SHELF-M2                                                                                                                   |
| • SHELF-M6             | SHELF-M6                                                                                                                   |
| • STM4                 | An interface card that supports one or more STM4 (622 Mbps) optical facilities                                             |
| • STM4-4               | A four port STM4 card                                                                                                      |
| • STM4-IR-1            | An interface card that supports one intermediate range STM4 (622 Mbps) optical facilities                                  |
| • STM4-LR-1            | An interface card that supports one long range STM4 (622 Mbps) optical facilities                                          |
| • STM4-SR-1            | An interface card that supports one short range STM4 (622 Mbps) optical facilities                                         |
| • STM64-4              | A four port STM64 card                                                                                                     |
| • STM64-LR-1           | An interface card that supports one or more STM64 optical facilities                                                       |
| • STM1                 | An interface card that supports multiple STM1 (155 Mbps) optical facilities                                                |
| • STM1-IR-4            | An interface card that supports four intermediate range STM1 (155 Mbps) optical facilities                                 |
| • STM1-SR-4            | An interface card that supports four short range STM1 (155 Mbps) optical facilities                                        |
| • STM1ATM-IR-6         | An interface card that supports six intermediate range STM1 (155 Mbps) ATM optical fibers                                  |
| • STM1IR-STM1SH-1310-8 | An STM1 card which has 8 ports over the lower speed slot of the ONS 15454 SDH with XC-VXL-10G/XC-VXL-2.5G                  |
| • STM1POS-SR-4         | An interface card that supports four short range STM1 (155 Mbps) POS optical facilities                                    |
| • STM16                | An interface card that supports one or more STM16 (10 Gbps) optical facilities                                             |
| • STM16-AS-1           | An interface card that supports one short range OC-48 (10 Gbps) optical facilities that can be provisioned in any I/O slot |

|                 |                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------|
| • STM16-ELR-1   | An interface card that supports one short range STM16 (2.5 Gbps) optical facility       |
| • STM16-IR-1    | An interface card that supports one intermediate range STM16 (10 Gbps) optical facility |
| • STM16-LR-1    | An interface card that supports one long range STM16 (10 Gbps) optical facility         |
| • STM16-SR-1    | An interface card that supports one short range STM16 (10 Gbps) optical facilities      |
| • TCC           | Timing, Communications, and Control card                                                |
| • TDC-CC        | Coarse tunable dispersion compensation unit                                             |
| • TDC-FC        | Fine tunable dispersion compensation unit                                               |
| • TNC           | Transport Node Controller card                                                          |
| • TSC           | Transport Shelf Controller card                                                         |
| • TXP-MR-10G    | 10G Multirate Transponder card                                                          |
| • TXP-MR-2.5G   | Multirate 2.5G Unprotected                                                              |
| • TXPP-MR-2.5G  | Multirate 2.5G Protected                                                                |
| • UNKNOWN       | Unknown equipment type                                                                  |
| • UNPROVISIONED | Unprovisioned equipment type                                                            |
| • XC-VXC-10G    | XC-VXC-10G cross-connect card                                                           |
| • XCVXL-10G     | XC-VXL-10G cross-connect card                                                           |
| • XCVXL-2.5G    | XC-VXL-2.5G cross-connect card                                                          |

## 17.11 REPT EVT BITS

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Building Integrated Timing Supply (REPT EVT BITS) message reports a non-alarmed event against a BITS facility.

**Usage Guidelines** None

**Category** Synchronization

**Security** Retrieve

**Output Format**

```

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT ALM BITS
  "BITS-1:SSM-STU,TC,,,,,,;\\"SYNCHRONIZED - TRACEABILITY UNKNOWN\\""
;
```

**Output Parameters**

|             |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>       | Access identifier from the <a href="#">“26.6 BITS” section on page 26-21</a> .                                                                                                                                                                                                                                                                                                                                 |
| <CONDDTYPE> | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 node, whether or not the problem is reported (that is, whether it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <CONDEFF>   | The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit.                                                                                                                                                                                                                                                                |
| • CL        | Standing condition cleared                                                                                                                                                                                                                                                                                                                                                                                     |
| • SC        | Standing condition raised                                                                                                                                                                                                                                                                                                                                                                                      |
| • TC        | Transient condition                                                                                                                                                                                                                                                                                                                                                                                            |
| <LOCN>      | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place.                                                                                                                                                                                                     |
| • FEND      | Action occurs on the far end of the facility.                                                                                                                                                                                                                                                                                                                                                                  |
| • NEND      | Action occurs on the near end of the facility.                                                                                                                                                                                                                                                                                                                                                                 |
| <DIRN>      | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                                                                                                                                                                                                                               |
| • BTH       | Both transmit and receive directions                                                                                                                                                                                                                                                                                                                                                                           |
| • RCV       | Receive direction only                                                                                                                                                                                                                                                                                                                                                                                         |
| <DESC>      | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                              |

## 17.12 REPT EVT COM

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Common (REPT EVT COM) message reports a nonalarmed event against an NE when there is no AID associated with it.

**Usage Guidelines**

None

**Category**

Fault

**Security**

Retrieve

**Output Format**

```
SID DATE TIME
A ATAG REPT EVT COM
“[<AID>]:<CONDTYPE>,<CONDEFF>],,,,,,<LOCN>].<DIRN>]:<DESC>]”
;
```

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT COM
“COM:CLDRESTART,TC,,,,,,:\“COLD RESTART\”,”
;
```

**Output Parameters**

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>      | (Optional) Access identifier. Identifies the entity to which the command pertains. AID is a string.                                                                                                                                                                                                                                                                                                                            |
| <CONDTYPE> | Condition type for an alarm or a reported event. The parameter type is <b>CONDITION</b> , which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not-Alarmed conditions (NA), and Not-Reported (NR) conditions. See <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <CONDEFF>  | The effect of the event on the condition of the NE. The parameter type is <b>COND_EFF</b> , which is the state of the condition upon the affected unit.                                                                                                                                                                                                                                                                        |
| • CL       | Standing condition cleared                                                                                                                                                                                                                                                                                                                                                                                                     |
| • SC       | Standing condition raised                                                                                                                                                                                                                                                                                                                                                                                                      |
| • TC       | Transient condition                                                                                                                                                                                                                                                                                                                                                                                                            |
| <LOCN>     | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is <b>LOCATION</b> , which is the location where the action is to take place.                                                                                                                                                                                                             |
| • FEND     | Action occurs on the far end of the facility.                                                                                                                                                                                                                                                                                                                                                                                  |
| • NEND     | Action occurs on the near end of the facility.                                                                                                                                                                                                                                                                                                                                                                                 |
| <DIRN>     | The PM count retrieval direction. The parameter type is <b>DIRECTION</b> , which is the transmit and receive directions.                                                                                                                                                                                                                                                                                                       |
| • BTH      | Both transmit and receive directions                                                                                                                                                                                                                                                                                                                                                                                           |
| • RCV      | Receive direction only                                                                                                                                                                                                                                                                                                                                                                                                         |
| <DESC>     | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                              |

## 17.13 REPT EVT ENV

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Environment (REPT EVT ENV) message reports the occurrence of a nonalarmed event against an environment alarm input.

**Usage Guidelines**

None

**Category** Environment

**Security** Retrieve

**Output Format**

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT ENV
  "ENV-IN-2:OPENDR,TC,,,,,,:\“OPEN DOOR\”"
;
```

|                          |             |                                                                                                                   |
|--------------------------|-------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Output Parameters</b> | <AID>       | Access identifier from the <a href="#">“26.14 ENV” section on page 26-37</a> . Identifies an environmental input. |
|                          | <ALMTYPE>   | Abbreviated code identifying the alarm. The parameter type is ENV_ALM (environmental alarm types).                |
|                          | • AIRCOMPR  | Air compressor failure                                                                                            |
|                          | • AIRCOND   | Air conditioning failure                                                                                          |
|                          | • AIRDRYR   | Air dryer failure                                                                                                 |
|                          | • BATDSCHRG | Battery discharging                                                                                               |
|                          | • BATTERY   | Battery failure                                                                                                   |
|                          | • CLFAN     | Cooling fan failure                                                                                               |
|                          | • CPMajor   | Centralized power major failure                                                                                   |
|                          | • CPMINOR   | Centralized power minor failure                                                                                   |
|                          | • ENGINE    | Engine failure                                                                                                    |
|                          | • ENGOPRG   | Engine operating                                                                                                  |
|                          | • ENGTRANS  | Standby engine transfer                                                                                           |
|                          | • EXPLGS    | Explosive gas                                                                                                     |
|                          | • FIRDETR   | Fire detector failure                                                                                             |
|                          | • FIRE      | Fire                                                                                                              |
|                          | • FLOOD     | Flood                                                                                                             |
|                          | • FUELLEAK  | Fuel leak                                                                                                         |
|                          | • FUSE      | Fuse failure                                                                                                      |
|                          | • GASALARM  | Explosive gas, toxic gas, ventilation fail, or gas monitor fail                                                   |
|                          | • HATCH     | CEV hatch fail                                                                                                    |
|                          | • GEN       | Generator failure                                                                                                 |
|                          | • HIAIR     | High airflow                                                                                                      |
|                          | • HIHUM     | High humidity                                                                                                     |

|              |                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| • HITEMP     | High temperature                                                                                                                                |
| • HIWTR      | High water                                                                                                                                      |
| • INTRUDER   | Intrusion                                                                                                                                       |
| • LEVELCON   | Level converter                                                                                                                                 |
| • LVDADSL    | Secondary ADSL low voltage disconnect                                                                                                           |
| • LVDBYPAS   | Low voltage disconnect bypass                                                                                                                   |
| • LWBATVG    | Low battery voltage                                                                                                                             |
| • LWFUEL     | Low fuel                                                                                                                                        |
| • LWHUM      | Low humidity                                                                                                                                    |
| • LWPRES     | Low cable pressure                                                                                                                              |
| • LWTEMP     | Low temperature                                                                                                                                 |
| • LWWTR      | Low water                                                                                                                                       |
| • MISC       | Miscellaneous                                                                                                                                   |
| • OPENDR     | Open door                                                                                                                                       |
| • POWER      | Commercial power failure                                                                                                                        |
| • PUMP       | Pump failure                                                                                                                                    |
| • PWR-48     | 48 V power supply failure                                                                                                                       |
| • PWR-139    | –139 V power converter                                                                                                                          |
| • PWR-190    | –190 V power converter                                                                                                                          |
| • PWRMJ      | Power supply major                                                                                                                              |
| • PWRMN      | Power supply minor                                                                                                                              |
| • RECT       | Rectifier failure                                                                                                                               |
| • RECTHI     | Rectifier high voltage                                                                                                                          |
| • RECTLO     | Rectifier low voltage                                                                                                                           |
| • RINGGENMJ  | Ring generator major                                                                                                                            |
| • RINGGENMN  | Ring generator minor                                                                                                                            |
| • RTACADSL   | AC or AC/rectifier power fail ADSL equipment                                                                                                    |
| • RTACCRIT   | AC or AC/rectifier power fail DCL equipment critical site                                                                                       |
| • RTACPWR    | AC or AC/rectifier power fail DCL equipment                                                                                                     |
| • RTACPWRENG | Commercial AC fail, site equipped with standby engine                                                                                           |
| • RTBAYPWR   | AC power loss distributed power RT bay                                                                                                          |
| • RTRVENG    | Retrieve standby engine, commercial AC restored                                                                                                 |
| • SMOKE      | Smoke                                                                                                                                           |
| • TEMP       | High-low temperature                                                                                                                            |
| • TOXICGAS   | Toxic gas                                                                                                                                       |
| • TREPEATER  | T-repeater shelf                                                                                                                                |
| • VENTN      | Ventilation system failure                                                                                                                      |
| <CONDEFF>    | The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit. |
| • CL         | Standing condition cleared                                                                                                                      |
| • SC         | Standing condition raised                                                                                                                       |

|        |                                                                                                                                                                                                            |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • TC   | Transient condition                                                                                                                                                                                        |
| <LOCN> | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place. |
| • FEND | Action occurs on the far end of the facility.                                                                                                                                                              |
| • NEND | Action occurs on the near end of the facility.                                                                                                                                                             |
| <DIRN> | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                           |
| • BTH  | Both transmit and receive directions                                                                                                                                                                       |
| • RCV  | Receive direction only                                                                                                                                                                                     |
| <DESC> | (Optional) Condition description.                                                                                                                                                                          |

## 17.14 REPT EVT EQPT

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Equipment (REPT EVT EQPT) message reports the occurrence of a nonalarmed event against an equipment unit or slot.

### Usage Guidelines

None

### Category

Equipment

### Security

Retrieve

### Output Format

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

### Output Example

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT EQPT
  "SLOT-7:PLUGIN,TC,,,,,,:\EQUIPMENT PLUG-IN",TCC"
;
```

## Output Parameters

| Parameter          | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>              | Access identifier from the <a href="#">“26.15 EQPT” section on page 26-37</a> . Equipment AID SLOT-{1-17}.                                                                                                                                                                                                                                                                                                                 |
| <CONDTYPE>         | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed (NA) conditions, and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <CONDEFF>          | (Optional) The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit.                                                                                                                                                                                                                                                                 |
| • CL               | Standing condition cleared                                                                                                                                                                                                                                                                                                                                                                                                 |
| • SC               | Standing condition raised                                                                                                                                                                                                                                                                                                                                                                                                  |
| • TC               | Transient condition                                                                                                                                                                                                                                                                                                                                                                                                        |
| <DESC>             | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |
| <AIDDET>           | (Optional) AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot.                                                                                                                                                                                  |
| • 15216-MD-40-EVEN | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid                                                                                                                                                                                                                                                                                                                                                  |
| • 15216-MD-40-ODD  | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid                                                                                                                                                                                                                                                                                                                                                   |
| • 15216-MD-ID-50   | Thermal Interleaver Passive Unit, spaced at 50 GHz grid                                                                                                                                                                                                                                                                                                                                                                    |
| • 32DMX-L          | 32-channel demultiplexer for L-band                                                                                                                                                                                                                                                                                                                                                                                        |
| • 32WSS-L          | 32-channel wavelength switch selector for L-band                                                                                                                                                                                                                                                                                                                                                                           |
| • 40G-MXP-C        | 40 Gbit/Sec Multirate Muxponder                                                                                                                                                                                                                                                                                                                                                                                            |
| • 40-SMR1-C        | The single module 40-channel ROADM on C-band                                                                                                                                                                                                                                                                                                                                                                               |
| • 40-SMR2-C        | The single module 40-channel ROADM with EDFA on C-band                                                                                                                                                                                                                                                                                                                                                                     |
| • 40G-TXP-C        | 40 Gigabits per second Multirate Transponder                                                                                                                                                                                                                                                                                                                                                                               |
| • 80-WXC-C         | 80-channel wavelength cross-connect spaced at 100 GHz grid                                                                                                                                                                                                                                                                                                                                                                 |
| • AD-1B            | OADM 1-Band Filter                                                                                                                                                                                                                                                                                                                                                                                                         |
| • AD-1C            | OADM 1-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • AD-2C            | OADM 2-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • AD-4B            | OADM 4-Bans Filter                                                                                                                                                                                                                                                                                                                                                                                                         |
| • AD-4C            | OADM 4-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • ADM-10G          | 12 x OC3/OC12/OC48/GIGE and OC192/Trunk ADM 10 Gbit/Sec.                                                                                                                                                                                                                                                                                                                                                                   |
| • AICI             | AIC-I card                                                                                                                                                                                                                                                                                                                                                                                                                 |
| • AIP              | Alarm Indication Panel                                                                                                                                                                                                                                                                                                                                                                                                     |

| Parameter          | Description                                                      |
|--------------------|------------------------------------------------------------------|
| • ALM-PWR          | Alarm Power                                                      |
| • ASAP-4           | ASAP carrier card with four PIM slots                            |
| • BP               | The backplane of the NE                                          |
| • CE-100T-8        | 8-port 100T card                                                 |
| • CE-1000-4        | 4-port GIGE mapper card                                          |
| • CRFT-TMG         | Craft Timing                                                     |
| • DCC              | Data Communications Channel                                      |
| • DCU              | Dispersion Compensation Unit                                     |
| • DMX-32           | Optical DMX 32 Channels                                          |
| • DS3i-N-12        | DS3i-N-12 card                                                   |
| • E1-21-DS3-E3-3   | ONS 15310 MA SDH E1, E3, DS3 card                                |
| • E1-63-DS3-E3-3   | ONS 15310 MA SDH E1, E3, DS3 card                                |
| • E1               | E1 card                                                          |
| • E1-42            | 42-port E1 card                                                  |
| • E1000T-2         | 2-port interface card supporting 1000BaseT Ethernet facilities   |
| • E100T-12         | 12-port interface card supporting 100BaseT Ethernet facilities   |
| • E100T-4          | Four-port interface card supporting 100BaseT Ethernet facilities |
| • E1N              | E1N card                                                         |
| • E3               | E3 card                                                          |
| • FILLER_CARD      | Filler card                                                      |
| • FMEC-155E-1TO1   | The equipment type for FMEC STM1E12 card                         |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection     |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection      |
| • FMEC-SMZ-E1      | FMEC card corresponding to E1 card                               |
| • FMEC-SMZ-E3      | FMEC card corresponding to E3 card                               |
| • FTA              | Fan Tray of the NE                                               |
| • FTA1             | Fan Tray 1 of the NE                                             |
| • FTA2             | Fan Tray 2 of the NE                                             |
| • G1K-4            | G1K-4 card                                                       |
| • MD-4             | Optical Multiplexer/Demultiplexer with 4 Channels                |
| • ML100X-8         | 8-port 100T card with optical interface                          |
| • MMU              | Multiring mesh upgrade unit                                      |
| • MS-ISC-100T      | Fast Ethernet switch card used for internal shelf connection     |
| • MUX-32           | Optical MUX 32 Channels                                          |
| • MXP-2.5G-10G     | 10G (4 * 2.5G) Muxponder card                                    |
| • MXP-MR-10DME     | 10 Gbps datamux with enhanced FEC                                |

| Parameter              | Description                                                                                               |
|------------------------|-----------------------------------------------------------------------------------------------------------|
| • OPT-AMP-L            | Optical preamplifier for L-band                                                                           |
| • OPT-BST              | Optical booster amplifier                                                                                 |
| • OPT-BST-L            | Optical booster for L-band                                                                                |
| • OPT-PRE              | Optical Preamplifier                                                                                      |
| • OPT-RAMP-C           | Raman Pump Amplifier C Band                                                                               |
| • OPT-RAMP-CE          | An extended version of Raman pump amplifier                                                               |
| • OPT-RAMP-E           | Raman pump amplifier E-band                                                                               |
| • OSC-CSM              | Optical Service Channel with Combiner/Separator Module                                                    |
| • OSCM                 | Optical Service Channel Module                                                                            |
| • OTU2-XP              | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64    |
| • PIM-4                | Pluggable interface module with 4 PPM slots                                                               |
| • PP-4-SMR             | Patch-Panel, 4 degrees, for SMR cards                                                                     |
| • PP-MESH-4            | Patch-Panel, 4 degrees                                                                                    |
| • PP-MESH-8            | Patch-Panel, 8 degrees                                                                                    |
| • PPM-1                | Pluggable port module with 1-port SFP module                                                              |
| • PSM                  | Protection Service Module card                                                                            |
| • SHELF                | Shelf entity                                                                                              |
| • SHELF-M2             | SHELF-M2                                                                                                  |
| • SHELF-M6             | SHELF-M6                                                                                                  |
| • STM4                 | An interface card that supports one or more STM4 (622 Mbps) optical facilities                            |
| • STM4-4               | A four port STM4 card                                                                                     |
| • STM4-IR-1            | An interface card that supports one intermediate range STM4 (622 Mbps) optical facilities                 |
| • STM4-LR-1            | An interface card that supports one long range STM4 (622 Mbps) optical facilities                         |
| • STM4-SR-1            | An interface card that supports one short range STM4 (622 Mbps) optical facilities                        |
| • STM64-4              | A four-port STM64 card                                                                                    |
| • STM64-LR-1           | An interface card that supports one or more STM64 optical facilities                                      |
| • STM1                 | An interface card that supports multiple STM1 (155 Mbps) optical facilities                               |
| • STM1-IR-4            | An interface card that supports four intermediate range STM1 (155 Mbps) optical facilities                |
| • STM1-SR-4            | An interface card that supports four short range STM1 (155 Mbps) optical facilities                       |
| • STM1ATM-IR-6         | An interface card that supports six intermediate range STM1 (155 Mbps) ATM optical fibers                 |
| • STM1IR-STM1SH-1310-8 | An STM1 card which has 8 ports over the lower speed slot of the ONS 15454 SDH with XC-VXL-10G/XC-VXL-2.5G |

| Parameter       | Description                                                                                                                |
|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| • STM1POS-SR-4  | An interface card that supports four short range STM1 (155 Mbps) POS optical facilities                                    |
| • STM16         | An interface card that supports one or more STM16 (10 Gbps) optical facilities                                             |
| • STM16-AS-1    | An interface card that supports one short range OC-48 (10 Gbps) optical facilities that can be provisioned in any I/O slot |
| • STM16-ELR-1   | An interface card that supports one short range STM16 (2.5 Gbps) optical facility                                          |
| • STM16-IR-1    | An interface card that supports one intermediate range STM16 (10 Gbps) optical facility                                    |
| • STM16-LR-1    | An interface card that supports one long range STM16 (10 Gbps) optical facility                                            |
| • STM16-SR-1    | An interface card that supports one short range STM16 (10 Gbps) optical facilities                                         |
| • TCC           | Timing, Communications, and Control card                                                                                   |
| • TDC-CC        | Coarse tunable dispersion compensation unit                                                                                |
| • TDC-FC        | Fine tunable dispersion compensation unit                                                                                  |
| • TNC           | Transport Node Controller card                                                                                             |
| • TSC           | Transport Shelf Controller card                                                                                            |
| • TXP-MR-10G    | 10G Multirate Transponder card                                                                                             |
| • TXP-MR-2.5G   | Multirate 2.5G Unprotected                                                                                                 |
| • TXPP-MR-2.5G  | Multirate 2.5G Protected                                                                                                   |
| • UNKNOWN       | Unknown equipment type                                                                                                     |
| • UNPROVISIONED | Unprovisioned equipment type                                                                                               |
| • XC-VXC-10G    | XC-VXC-10G cross-connect card                                                                                              |
| • XCVXL-10G     | XC-VXL-10G cross-connect card                                                                                              |
| • XCVXL-2.5G    | XC-VXL-2.5G cross-connect card                                                                                             |

## 17.15 REPT EVT FXFR

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Software Download (REPT EVT FXFR) message reports the FTP software download status of the start, completion, and completed percentage.

### Usage Guidelines

- The FXFR\_RSLT is only sent when the FXFR\_STATUS is COMPLD.
- The BYTES\_XFRD is only sent when the FXFR\_STATUS is IP or COMPLD.

### Category

File Transfer

**Security**

Retrieve

**Output Format**

```

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

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT FXFR
"NEW.PKG,COMPLD,SUCCESS,21215147"
;

```

**Output Parameters**

|               |                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <FILENAME>    | When a package is being transferred between the FTP server and the controller cards, the filename field will contain the string ACTIVE. Following this transfer, if there is a second common-control card on the NE, the file will be copied over to the second card during which time REPT EVT FXFR messages will be generated with a filename of STANDBY. FILENAME is a string. |
| <FXFR_STATUS> | The status of the file transfer. The parameter type is TX_STATUS, which is the status of the file transfer.                                                                                                                                                                                                                                                                       |
| • COMPLD      | The file transmission is completed.                                                                                                                                                                                                                                                                                                                                               |
| • IP          | The file transmission is in progress.                                                                                                                                                                                                                                                                                                                                             |
| • START       | The file transmission is started.                                                                                                                                                                                                                                                                                                                                                 |
| <FXFR_RSLT>   | (Optional) The result of the file transfer. The parameter type is TX_RSLT, which is the result of the file transfer.                                                                                                                                                                                                                                                              |
| • FAILURE     | A failed result                                                                                                                                                                                                                                                                                                                                                                   |
| • SUCCESS     | A successful result                                                                                                                                                                                                                                                                                                                                                               |
| <BYTES_XFRD>  | (Optional) The percentage of bytes transferred. BYTES_XFRED is a string.                                                                                                                                                                                                                                                                                                          |

## 17.16 REPT EVT IOSCFG

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Internet Operating System Configuration File (REPT EVT IPSCFG) message reports the status of copying the Cisco IOS configuration file when the COPY-IOSCFG command is issued.

**Usage Guidelines**

- You can identify if this message is caused by a Cisco IOS configuration file downloading, uploading, or merging by looking at the SRC and DEST fields in the message. See the [“8.1 COPY-IOSCFG” section on page 8-1](#) for more details.
- There is no success/failure in the message to indicate the success or failure of the merge process when merging the startup Cisco IOS config file to the running config file.

**Category** File Transfer

**Security** Retrieve

**Output Format**

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT IOSCFG
  "SLOT-1:STARTUP,IOS-CONFIG-FILE-IN-NETWORK,COMPLD,SUCCESS"
;
```

|                          |           |                                                                                                                      |
|--------------------------|-----------|----------------------------------------------------------------------------------------------------------------------|
| <b>Output Parameters</b> | <AID>     | Access identifier from the <a href="#">“26.15 EQPT”</a> section on page 26-37. Slot AID for the equipment.           |
|                          | <SRC>     | Source access identifier. Specifies where the Cisco IOS configuration file is copied from. SRC is a string.          |
|                          | <DEST>    | Destination. Specifies where the Cisco IOS configuration file is copied to. DEST is a string.                        |
|                          | <STATUS>  | The status of COPY-IOSCFG. The parameter type is TX_STATUS, which is the status of the file transfer.                |
|                          | • COMPLD  | The file transmission is completed.                                                                                  |
|                          | • IP      | The file transmission is in progress.                                                                                |
|                          | • START   | The file transmission is started.                                                                                    |
|                          | <RESULT>  | (Optional) The result of the file transfer. The parameter type is TX_RSLT, which is the result of the file transfer. |
|                          | • FAILURE | A failed result                                                                                                      |
|                          | • SUCCESS | A successful result                                                                                                  |

## 17.17 REPT EVT SECU

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Security (REPT EVT SECU) message reports the occurrence of a nonalarmed security event against the NE.

### Usage Guidelines

- Based on TR-NWT-000835 in TR-NWT-000835 and the AID of the security alarm should be the CID, which is not supported in this release. The COM or UID is an acceptable substitute for the AID here. CIDs will be supported in a future release.
- For the rule of single failure, single message/alarm, the security alarm will not be reported as REPT ALM COM, because it is reported as REPT ALM SECU.

- Because the NE sends this security message as a transient message, to make all TL1 autonomous messages consistent, the TL1 agent reports the security message into REPT EVT SECU.
- This message is inhibited by default. A Superuser will have to issue the ALW-MSG-SECU to see this message.

**Category**

Security

**Security**

Superuser

**Output Format**

```

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

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT SECU
"COM:LOGIN-FAILURE-PSWD,TC,,,,,;"SECURITY:
INVALID LOGIN - PASSWORD - SEE AUDIT LOG"
;

```

**Output Parameters**

|            |                                                                                                                                                                                                            |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>      | Access identifier. Identifies an entity with the condition. Defaults to COM. AID is a string.                                                                                                              |
| <DNFIELD>  | String                                                                                                                                                                                                     |
| <CONDEFF>  | The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit.                                                            |
| • CL       | Standing condition cleared                                                                                                                                                                                 |
| • SC       | Standing condition raised                                                                                                                                                                                  |
| • TC       | Transient condition                                                                                                                                                                                        |
| <LOCN>     | Location associated with a particular command. Identifies the location from which the PM mode is to be retrieved. The parameter type is LOCATION, which is the location where the action is to take place. |
| • FEND     | Action occurs on the far end of the facility.                                                                                                                                                              |
| • NEND     | Action occurs on the near end of the facility.                                                                                                                                                             |
| <DIRN>     | The PM count retrieval direction. The parameter type is DIRECTION, which is the transmit and receive directions.                                                                                           |
| • BTH      | Both transmit and receive directions                                                                                                                                                                       |
| • RCV      | Receive direction only                                                                                                                                                                                     |
| <SECURITY> | SECURITY is a string.                                                                                                                                                                                      |
| <DNFIELD1> | DNFIELD1 is a string.                                                                                                                                                                                      |

# 17.18 REPT EVT SESSION

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Session (REPT EVT SESSION) message reports a nonalarmed event related to establishing a session with the NE.

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                           |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Usage Guidelines  | <p>The WARN field might contain different information depending on the type of session-related event.</p> <ul style="list-style-type: none"> <li>If the password aging feature has not been enabled (or the feature is enabled but the password is not close to expiring):<br/> /*USER &lt;UID&gt; LOGGED IN &lt;IP/SERIAL PORT*/</li> <li>If the forced password feature is enforced and the user is logging in for the first time (or the password has expired):<br/> /*PLEASE CHANGE PASSWORD BEFORE CONTINUING*/</li> <li>If a session is terminated for any reason (except a user timeout), the reason for the session termination is indicated in the WARN field.</li> </ul> |                                                                                                                                                                                                                                                                                                           |
| Category          | Security                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                           |
| Security          | Retrieve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                           |
| Output Format     | <pre> SID DATE TIME A ATAG REPT EVT SESSION   "&lt;AID&gt;:&lt;EXP&gt;,&lt;PCN&gt;"   "&lt;WARN&gt;" ; </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                           |
| Output Example    | <pre> TID-000 1998-06-20 14:30:00 A 100.100 REPT EVT SESSION   "TCCP:YES,5-DAY"   "/* USER TERRI LOGGED IN TO TCCP */" ; </pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                           |
| Output Parameters | <AID>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Access identifier. Identifies the NE with which a session is established. AID is a string.                                                                                                                                                                                                                |
|                   | <EXP>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Indicates whether the password is alive (for example, no password updating is required at the moment), expired, or is about to expire. 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                                                                                                                                                                                                                                                                                                       |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <PCN>  | <p>The number of days still remaining before the existing password expires. PCN appears only if EXP=YES and one of the following conditions has been met:</p> <ul style="list-style-type: none"> <li>• The warning period has not been exhausted.</li> <li>• The user is a new user establishing a session for the first time and the forced password change policy has been activated.</li> </ul> <p>PCN is a string.</p> |
| <WARN> | <p>Free format text containing additional information about the security event. WARN is a string.</p>                                                                                                                                                                                                                                                                                                                      |

## 17.19 REPT EVT SYNCN

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Event Synchronization (REPT EVT SYNCN) message reports the occurrence of a nonalarmed event against a synchronization entity.

**Usage Guidelines** None

**Category** Synchronization

**Security** Retrieve

**Output Format**

```

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

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100.100 REPT EVT SYNCN
  "SYNC-NE:SWTOINT,SC,,,,,:\"SWITCH TO INTERNAL CLOCK\",TCC"
;
```

## Output Parameters

| Parameter          | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <AID>              | Access identifier from the <a href="#">“26.30 SYNC_REF”</a> section on <a href="#">page 26-59</a> .                                                                                                                                                                                                                                                                                                                        |
| <CONDTYPE>         | Condition type for an alarm or a reported event. The parameter type is CONDITION, which is any problem detected on an ONS 15454 shelf, whether or not the problem is reported (that is, whether or not it generates a trouble notification). Reported conditions include alarms, Not Alarmed (NA) conditions, and Not Reported (NR) conditions. See the <a href="#">Chapter 27, “Conditions”</a> for a list of conditions. |
| <CONDEFF>          | (Optional) The effect of the event on the condition of the NE. The parameter type is COND_EFF, which is the state of the condition upon the affected unit.                                                                                                                                                                                                                                                                 |
| • CL               | Standing condition cleared                                                                                                                                                                                                                                                                                                                                                                                                 |
| • SC               | Standing condition raised                                                                                                                                                                                                                                                                                                                                                                                                  |
| • TC               | Transient condition                                                                                                                                                                                                                                                                                                                                                                                                        |
| <DESC>             | (Optional) Condition description.                                                                                                                                                                                                                                                                                                                                                                                          |
| <AIDDET>           | (Optional) AIDDET uses the same addressing rules as the AID, but specifies AID type and additional details about the entity being managed. The parameter type is EQPT_TYPE, which is the type of equipment being provisioned into a slot.                                                                                                                                                                                  |
| • 15216-MD-40-EVEN | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on even grid                                                                                                                                                                                                                                                                                                                                                  |
| • 15216-MD-40-ODD  | Thermal Multiplex/Demultiplex Passive Unit, spaced at 50 GHz on odd grid                                                                                                                                                                                                                                                                                                                                                   |
| • 15216-MD-ID-50   | Thermal Interleaver Passive Unit, spaced at 50 GHz grid                                                                                                                                                                                                                                                                                                                                                                    |
| • 32DMX-L          | 32-channel demultiplexer for L-band                                                                                                                                                                                                                                                                                                                                                                                        |
| • 32WSS-L          | 32-channel wavelength switch selector for L-band                                                                                                                                                                                                                                                                                                                                                                           |
| • 40G-MXP-C        | 40 Gbit/Sec Multirate Muxponder                                                                                                                                                                                                                                                                                                                                                                                            |
| • 40-SMR1-C        | The single module 40-channel ROADM on C-band                                                                                                                                                                                                                                                                                                                                                                               |
| • 40-SMR2-C        | The single module 40-channel ROADM with EDFA on C-band                                                                                                                                                                                                                                                                                                                                                                     |
| • 40G-TXP-C        | 40 Gigabits per second Multirate Transponder                                                                                                                                                                                                                                                                                                                                                                               |
| • 80-WXC-C         | 80-channel wavelength cross-connect spaced at 100 GHz grid                                                                                                                                                                                                                                                                                                                                                                 |
| • AD-1B            | OADM 1-Band Filter                                                                                                                                                                                                                                                                                                                                                                                                         |
| • AD-1C            | OADM 1-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • AD-2C            | OADM 2-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • AD-4B            | OADM 4-Bans Filter                                                                                                                                                                                                                                                                                                                                                                                                         |
| • AD-4C            | OADM 4-Channel Filter                                                                                                                                                                                                                                                                                                                                                                                                      |
| • AICI             | AIC-I card                                                                                                                                                                                                                                                                                                                                                                                                                 |
| • AIP              | Alarm Indication Panel                                                                                                                                                                                                                                                                                                                                                                                                     |
| • ALM-PWR          | Alarm Power                                                                                                                                                                                                                                                                                                                                                                                                                |
| • ASAP-4           | ASAP carrier card with four PIM slots                                                                                                                                                                                                                                                                                                                                                                                      |
| • BP               | The backplane of the NE                                                                                                                                                                                                                                                                                                                                                                                                    |

| Parameter          | Description                                                                    |
|--------------------|--------------------------------------------------------------------------------|
| • CE-100T-8        | 8-port 100T card                                                               |
| • CE-1000-4        | 4-port GIGE mapper card                                                        |
| • CRFT-TMG         | Craft Timing                                                                   |
| • DCC              | Data Communications Channel                                                    |
| • DCU              | Dispersion Compensation Unit                                                   |
| • DMX-32           | Optical DMX 32 Channels                                                        |
| • DS3i-N-12        | DS3i-N-12 card                                                                 |
| • E1-21-DS3-E3-3   | ONS 15310 MA SDH E1,E3, DS3                                                    |
| • E1-63-DS3-E3-3   | ONS 15310 MA SDH E1,E3, DS3                                                    |
| • E1               | E1 card                                                                        |
| • E1-42            | 42-port E1 card                                                                |
| • E1000T-2         | 2-port interface card supporting 1000BaseT Ethernet facilities                 |
| • E100T-12         | 12-port interface card supporting 100BaseT Ethernet facilities                 |
| • E100T-4          | Four-port interface card supporting 100BaseT Ethernet facilities               |
| • E1N              | E1N card                                                                       |
| • E3               | E3 card                                                                        |
| • FILLER_CARD      | Filler card                                                                    |
| • FMEC-155E-1TO3   | The equipment type for FMEC STM1E12 card with 1:3 protection                   |
| • FMEC-155E-UNPROT | The equipment type for FMEC STM1E12 card without protection                    |
| • FMEC-SMZ-E1      | FMEC card corresponding to E1 card                                             |
| • FMEC-SMZ-E3      | FMEC card corresponding to E3 card                                             |
| • FTA              | Fan Tray of the NE                                                             |
| • FTA1             | Fan Tray 1 of the NE                                                           |
| • FTA2             | Fan Tray 2 of the NE                                                           |
| • G1K-4            | G1K-4 card                                                                     |
| • MD-4             | Optical Multiplexer/Demultiplexer with 4 Channels                              |
| • MESH-PP-SMR      | The passive unit Patch Panel device used to connect up to four 40-SMR2-C cards |
| • ML100X-8         | 8-port 100T card with optical interface                                        |
| • MMU              | Multiring mesh upgrade unit                                                    |
| • MS-ISC-100T      | Fast Ethernet switch card used for internal shelf connection                   |
| • MUX-32           | Optical MUX 32 Channels                                                        |
| • MXP-2.5G-10G     | 10G (4 * 2.5G) Muxponder card                                                  |
| • MXP-MR-10DME     | 10 Gbps datamux with enhanced FEC                                              |
| • OPT-AMP-L        | Optical preamplifier for L-band                                                |
| • OPT-BST          | Optical booster amplifier                                                      |
| • OPT-BST-L        | Optical booster for L-band                                                     |

| Parameter              | Description                                                                                                                |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| • OPT-PRE              | Optical Preamplifier                                                                                                       |
| • OPT-RAMP-C           | Raman pump amplifier C-band                                                                                                |
| • OPT-RAMP-CE          | An extended version of Raman pump amplifier                                                                                |
| • OPT-RAMP-E           | Raman pump amplifier E-band                                                                                                |
| • OSC-CSM              | Optical Service Channel with Combiner/Separator Module                                                                     |
| • OSCM                 | Optical Service Channel Module                                                                                             |
| • OTU2-XP              | A 4x10G transponder that is capable to operate with multiple bit rates - 10G FC, 10GE, and OC192/STM64                     |
| • PIM-4                | Pluggable interface module with 4 PPM slots                                                                                |
| • PP-4-SMR             | Patch-Panel, 4 degrees, for SMR cards                                                                                      |
| • PP-MESH-4            | Patch-Panel, 4 degrees                                                                                                     |
| • PP-MESH-8            | Patch-Panel, 8 degrees                                                                                                     |
| • PPM-1                | Pluggable port module with 1-port SFP module                                                                               |
| • PSM                  | Protection unit                                                                                                            |
| • SHELF                | Shelf entity                                                                                                               |
| • STM4                 | An interface card that supports one or more STM4 (622 Mbps) optical facilities                                             |
| • STM4-4               | A four port STM4 card                                                                                                      |
| • STM4-IR-1            | An interface card that supports one intermediate range STM4 (622 Mbps) optical facilities                                  |
| • STM4-LR-1            | An interface card that supports one long range STM4 (622 Mbps) optical facilities                                          |
| • STM4-SR-1            | An interface card that supports one short range STM4 (622 Mbps) optical facilities                                         |
| • STM64-4              | A four-port STM64 card                                                                                                     |
| • STM64-LR-1           | An interface card that supports one or more STM64 optical facilities                                                       |
| • STM1                 | An interface card that supports multiple STM1 (155 Mbps) optical facilities                                                |
| • STM1-IR-4            | An interface card that supports four intermediate range STM1 (155 Mbps) optical facilities                                 |
| • STM1-SR-4            | An interface card that supports four short range STM1 (155 Mbps) optical facilities                                        |
| • STM1ATM-IR-6         | An interface card that supports six intermediate range STM1 (155 Mbps) ATM optical fibers                                  |
| • STM1IR-STM1SH-1310-8 | An STM1 card which has 8 ports over the lower speed slot of the ONS 15454 SDH with XC-VXL-10G/XC-VXL-2.5G                  |
| • STM1POS-SR-4         | An interface card that supports four short range STM1 (155 Mbps) POS optical facilities                                    |
| • STM16                | An interface card that supports one or more STM16 (10 Gbps) optical facilities                                             |
| • STM16-AS-1           | An interface card that supports one short range OC-48 (10 Gbps) optical facilities that can be provisioned in any I/O slot |

| Parameter       | Description                                                                             |
|-----------------|-----------------------------------------------------------------------------------------|
| • STM16-ELR-1   | An interface card that supports one short range STM16 (2.5 Gbps) optical facility       |
| • STM16-IR-1    | An interface card that supports one intermediate range STM16 (10 Gbps) optical facility |
| • STM16-LR-1    | An interface card that supports one long range STM16 (10 Gbps) optical facility         |
| • STM16-SR-1    | An interface card that supports one short range STM16 (10 Gbps) optical facilities      |
| • TCC           | Timing, Communications, and Control card                                                |
| • TDC-CC        | Coarse tunable dispersion compensation unit                                             |
| • TDC-FC        | Fine tunable dispersion compensation unit                                               |
| • TXP-MR-10G    | 10G Multirate Transponder card                                                          |
| • TXP-MR-2.5G   | Multirate 2.5G Unprotected                                                              |
| • TXPP-MR-2.5G  | Multirate 2.5G Protected                                                                |
| • UNKNOWN       | Unknown equipment type                                                                  |
| • UNPROVISIONED | Unprovisioned equipment type                                                            |
| • XC-VXC-10G    | XC-VXC-10G cross-connect card                                                           |
| • XCVXL-10G     | XC-VXL-10G cross-connect card                                                           |
| • XCVXL-2.5G    | XC-VXL-2.5G cross-connect card                                                          |

## 17.20 REPT PM <MOD2>

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Performance Monitoring for 10GFC, 10GIGE, 1GFC, 1GFICON, 2GFC, 2GFICON, CLNT, D1VIDEO, DS1, DV6000, E1, E3, E4, EC1, ESCON, ETRCLO, ETH, FSTE, G1000, GFPOS, GIGE, HDTV, ILK, ISCCOMPAT, ISC3PEER2R, ISC3PEER1G, ISC3PEER2G, OC12, OC192, OC3, OC48, OCH, OMS, OTS, POS, STS1, STS12C, STS18C, STS192C, STS24C, STS36C, STS3C, STS48C, STS6C, STS9C, T1, T3, VC12, VC3, VT1, or VT2 (REPT PM <MOD2>) message reports autonomous monitoring statistics as a result of the schedule created by SCHED-PMREPT.

### Usage Guidelines

See [Table 28-1 on page 28-1](#) for supported modifiers by platform.



#### Note

Autonomous performance monitoring (Auto PM) report will have all PM paths reported without any filtering. If a particular parameter is not applicable to that card or circuit, then the value of MONVAL and VLDTY will be NA.

### Category

Performance

### Security

Retrieve

**Output Format**

```

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

```

**Output Example**

```

TID-000 1998-06-20 14:30:00
A 100 REPT PM 10GFC
  "FAC-3-1:CVL,10,PRTL,NEND,BTH,15-MIN,05-25,14-46"
;

```

**Output Parameters**

|           |                                                                                                |
|-----------|------------------------------------------------------------------------------------------------|
| <AID>     | Access identifier from the <a href="#">“26.1 ALL” section on page 26-1</a> .                   |
| <MONTYPE> | Monitored type. The parameter type is ALL_MONTYPE, which is the monitoring type list.          |
| • AISSP   | Alarm Indication Signal Seconds—Path                                                           |
| • ALL     | All possible values                                                                            |
| • BBE-PM  | OTN—Background Block Errors—Path Monitor Point                                                 |
| • BBE-SM  | OTN—Background Block Errors—Section Monitor Point                                              |
| • BBER-PM | OTN—Background Block Error Ratio—Path Monitor Point expressed as one tenth of a percentage.    |
| • BBER-SM | OTN—Background Block Error Ratio—Section Monitor Point expressed as one tenth of a percentage. |
| • BIEC    | FEC—Bit Errors Corrected                                                                       |
| • CGV     | 8B10B—Code Group Violations                                                                    |
| • CSSP    | Controlled Slip Seconds—Path (DSXM-12 FDL/T1.403 PM count)                                     |
| • CVCPP   | Coding Violations—CP-Bit Path                                                                  |
| • CVL     | Coding Violations—Line                                                                         |
| • CVP     | Coding Violations—Path                                                                         |
| • CVS     | Coding Violations—Section                                                                      |
| • CVV     | Coding Violations—Section                                                                      |
| • DCG     | 8B10B—Data Code Groups                                                                         |
| • ESAP    | Errored Second Type A—Path (DS3XM-12 DS1 PM count)                                             |
| • ESBP    | Errored Second Type B—Path (DS3XM-12 DS1 PM count)                                             |
| • ESCPP   | Errored Seconds—CP—Bit Path                                                                    |
| • ESL     | Errored Seconds—Line                                                                           |
| • ESNPFE  | Errored Second—Network Path (DS3XM-12 DS1 PM count)                                            |
| • ESP     | Errored Seconds—Path                                                                           |
| • ES-PM   | OTN—Errored Seconds—Path Monitor Point                                                         |
| • ES-SM   | OTN—Errored Seconds—Section Monitor Point                                                      |
| • ESR     | Errored Second—Ratio                                                                           |
| • ESR-PM  | Errored Seconds Ratio—Path monitor point expressed as one tenth of a percentage                |

|                            |                                                                                                                                                                 |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • ESR-SM                   | Errored Seconds Ratio—Section monitor point expressed as one tenth of a percentage                                                                              |
| • ESS                      | Errored Seconds—Section                                                                                                                                         |
| • ESV                      | Errored Seconds—VT Path                                                                                                                                         |
| • etherStatsBroadcastPkts  | The total number of good packets received that were directed to a multicast address                                                                             |
| • etherStatsCollisions     | Number of transmit packets that are collisions                                                                                                                  |
| • etherStatsCRCAlignErrors | The total number of packets received that have a length (excluding framing bits, but including frame check sequence [FCS] octets) of between 64 and 1518 octets |
| • etherStatsDropEvents     | Number of received frames dropped at the port level                                                                                                             |
| • etherStatsFragments      | The total number of packets received that were less than 64 octets                                                                                              |
| • etherStatsJabbers        | The total number of packets received that are longer than 1518 octets                                                                                           |
| • etherStatsOctets         | The total number of octets of data                                                                                                                              |
| • etherStatsOversizePkts   | The total number of packets received that are longer than 1518 octets                                                                                           |
| • etherStatsPkts           | The total number of packets (including bad packets, broadcast packets, and multicast packets) received                                                          |
| • etherStatsUndersizePkts  | The total number of packets received that are less than 64 octets                                                                                               |
| • FCP                      | Failure Count—Line                                                                                                                                              |
| • FC-PM                    | OTN—Failure Count—Path Monitor Point                                                                                                                            |
| • FC-SM                    | OTN—Failure Count—Section Monitor Point                                                                                                                         |
| • HP-AR                    | Availability Ratio                                                                                                                                              |
| • HP-BBE                   | High-Order Path Background Block Error                                                                                                                          |
| • HP-BBER                  | High-Order Path Background Block Error Ratio                                                                                                                    |
| • HP-EB                    | High-Order Path Errored Block                                                                                                                                   |
| • HP-ES                    | High-Order Path Errored Second                                                                                                                                  |
| • HP-ESA                   | High-Order Path Errored Seconds—A                                                                                                                               |
| • HP-ESB                   | High-Order Path Errored Seconds—B                                                                                                                               |
| • HP-ESR                   | High-Order Path Errored Second Ratio                                                                                                                            |
| • HP-FC                    | High-Order Path Failure Count                                                                                                                                   |
| • HP-NPJC-PDET             | High-Order Path Negative Pointer Justification Count, Path Detected                                                                                             |
| • HP-NPJC-PGEN             | High-Order Path, Negative Pointer Justification Count, Path Generated                                                                                           |
| • HP-OI                    | Outage Intensity                                                                                                                                                |
| • HP-PJCDIFF               | High-Order Path Pointer Justification Count Difference                                                                                                          |
| • HP-PJCS-PDET             | High-Order Path Pointer Justification Count, Path Detected                                                                                                      |
| • HP-PJCS-PGEN             | High-Order Path Pointer Justification Count Seconds, Path Generated                                                                                             |
| • HP-PPJC-PDET             | High-Order Path Positive Pointer Justification Count, Path Detected                                                                                             |
| • HP-PPJC-PGEN             | High-Order Path, Positive Pointer Justification Count, Path Generated                                                                                           |

|                         |                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------|
| • HP-SEPI               | The number of SEP events in available time                                                             |
| • HP-SES                | High-Order Path Severely Errored Seconds                                                               |
| • HP-SESR               | High-Order Path Severely Errored Second Ratio                                                          |
| • HP-UAS                | High-Order Path Unavailable Seconds                                                                    |
| • ifInBroadcastPkts     | Number of broadcast packets received since the last counter reset                                      |
| • ifInDiscards          | The number of inbound packets                                                                          |
| • ifInErrorBytePktss    | Receive Error Byte                                                                                     |
| • ifInErrors            | The number of inbound packets (or transmission units) that contained errors                            |
| • ifInFramingErrorPkts  | Receive Framing Error                                                                                  |
| • ifInJunkInterPkts     | Receive Interpacket Junk                                                                               |
| • ifInMulticastPkts     | Number of multicast packets received since the last counter reset                                      |
| • ifInOctets            | Number of bytes transmitted since the last counter reset                                               |
| • ifInUcastPkts         | Number of unicast packets received since the last counter reset                                        |
| • ifOutBroadcastPkts    | Number of broadcast packets transmitted                                                                |
| • ifOutDiscards         | The number of outbound packets                                                                         |
| • ifOutErrors           | The number of outbound packets (or transmission units) that could not be transmitted because of errors |
| • ifOutMulticastPkts    | Number of multicast packets transmitted                                                                |
| • ifOutPayloadCrcErrors | Received payload cyclic redundancy check (CRC) errors                                                  |
| • ifOutUcastPkts        | Number of unicast packets transmitted                                                                  |
| • IOS                   | 8B10B—Idle Ordered Sets                                                                                |
| • IPC                   | Invalid Packet Count                                                                                   |
| • LBCL-AVG              | Average Laser Bias current in microA                                                                   |
| • LBCL-MAX              | Maximum Laser Bias current in microA                                                                   |
| • LBCL-MIN              | Minimum Laser Bias current in microA                                                                   |
| • LBCN                  | Normalized Laser Bias Current for OC3-8                                                                |
| • LBCN-HWT              | Laser Bias Current                                                                                     |
| • LBCN-LWT              | Laser Bias Current                                                                                     |
| • LOSSL                 | Loss of Signal Seconds—Line                                                                            |
| • LP-BBE                | Low-Order Path Background Block Error                                                                  |
| • LP-BBER               | Low-Order Path Background Block Error Ratio                                                            |
| • LP-EB                 | Low-Order Path Errored Block                                                                           |
| • LP-ES                 | Low-Order Path Errored Second                                                                          |
| • LP-ESA                | Low-Order Path Errored Seconds—A                                                                       |
| • LP-ESB                | Low-Order Path Errored Seconds—B                                                                       |
| • LP-ESR                | Low-Order Path Errored Second Ratio                                                                    |
| • LP-FC                 | Low-Order Path Failure Count                                                                           |
| • LP-NPJC-DET           | Low-Order Negative Pointer Justification Count, Detected                                               |
| • LP-NPJC-GEN           | Low Order Negative Pointer Justification Count, Generated                                              |
| • LP-PPJC-DET           | Low-Order Positive Pointer Justification Count, Detected                                               |
| • LP-PPJC-GEN           | Low-Order positive Pointer Justification Count, Generated                                              |

|             |                                                                               |
|-------------|-------------------------------------------------------------------------------|
| • LP-SEP    | Low-Order Path Severely Errored Period                                        |
| • LP-SEPI   | Low-Order Path Severely Errored Period Intensity                              |
| • LP-SES    | Low-Order Path Severely Errored                                               |
| • LP-UAS    | Low-Order Path Unavailable Seconds                                            |
| • MS-PSC    | Protection switch count                                                       |
| • MS-PSD    | Protection switch duration                                                    |
| • NIOS      | 8B10B—Non Idle Ordered Sets                                                   |
| • NPJC-PDET | Negative Pointer Justification Count, Path Detected                           |
| • NPJC-PGEN | Negative Pointer Justification Count, Path Generated                          |
| • OPR-AVG   | Average Receive Power in tenths of a microW                                   |
| • OPR-MAX   | Maximum Receive Power in tenths of a microW                                   |
| • OPR-MIN   | Minimum Receive Power in tenths of a microW                                   |
| • OPRN      | Normalized Optical Receive Power for OC3-8                                    |
| • OPRN-MAX  | Maximum value for OPRN                                                        |
| • OPRN-MIN  | Minimum value for OPRN                                                        |
| • OPT-AVG   | Average Transmit Power in tenths of a microW                                  |
| • OPT-MAX   | Maximum Transmit Power in tenths of a microW                                  |
| • OPT-MIN   | Minimum Transmit Power in tenths of a microW                                  |
| • OPTN      | Normalized value for Optical Power Transmitted for the OC3-8 card             |
| • OPTN-MAX  | Maximum value for OPTN                                                        |
| • OPTN-MIN  | Minimum value for OPTN                                                        |
| • OPWR-AVG  | Optical Power—Average Interval Value in one tenth of a dBm                    |
| • OPWR-MAX  | Optical Power—Maximum Interval Value in one tenth of a dBm                    |
| • OPWR-MIN  | Optical Power—Minimum Interval Value in one tenth of a dBm                    |
| • PPJC-PDET | Positive Pointer Justification Count, Path Detected                           |
| • PPJC-PGEN | Positive Pointer Justification Count, Path Generated                          |
| • PSC       | Protection Switching Count                                                    |
| • PSC-R     | Protection Switching Count—Ring                                               |
| • PSC-S     | Protection Switching Count—Span                                               |
| • PSC-W     | Protection Switching Count—Working                                            |
| • PSD       | Protection Switching Duration                                                 |
| • PSD-R     | Protection Switching Duration—Ring                                            |
| • PSD-S     | Protection Switching Duration—Span                                            |
| • PSD-W     | Protection Switching Duration—Working                                         |
| • SASCPP    | Severely Errored Framing/Alarm Indication Signal (SEF/AIS) Second—CP-Bit Path |
| • SASP      | Severely Errored Framing/AIS Seconds Path                                     |
| • SEFS      | Severely Errored Framing Seconds                                              |
| • SEFSP     | Severely Errored Framing Seconds—Path (DS3XM-12 DS1 PM count)                 |
| • SESCOPP   | Severely Errored Second—CP-Bit Path                                           |
| • SESL      | Severely Errored Second—Line                                                  |

|             |                                                                                                                                                                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • SESNPFE   | Severely Errored Second—Network Path (DS3XM-12 DS1 PM count)                                                                                                                                                                                               |
| • SESP      | Severely Errored Second—Path                                                                                                                                                                                                                               |
| • SES-PM    | OTN—Severely Errored Second—Path                                                                                                                                                                                                                           |
| • SESR-PM   | OTN—Severely Errored Second Ratio—Path Monitor Point expressed as one tenth of a percentage                                                                                                                                                                |
| • SESR-SM   | OTN—Severely Errored Second Ratio—Section Monitor Point expressed as one tenth of a percentage                                                                                                                                                             |
| • SESS      | Severely Errored Second—Section                                                                                                                                                                                                                            |
| • SES-SM    | OTN—Severely Errored Second—Section Monitor Point                                                                                                                                                                                                          |
| • SESV      | Severely Errored Second—VT Path                                                                                                                                                                                                                            |
| • UASCPP    | Unavailable Second—CP-Bit Path                                                                                                                                                                                                                             |
| • UASL      | Unavailable Second—Line                                                                                                                                                                                                                                    |
| • UASNPFE   | Unavailable Second—Network Path (DS3XM-12 DS1 PM count)                                                                                                                                                                                                    |
| • UASP      | Unavailable Second—Path                                                                                                                                                                                                                                    |
| • UAS-PM    | OTN—Unavailable Second—Path Monitor Point                                                                                                                                                                                                                  |
| • UAS-SM    | OTN—Unavailable Second—Section Monitor Point                                                                                                                                                                                                               |
| • UASV      | Unavailable Second—VT Path                                                                                                                                                                                                                                 |
| • UNC-WORDS | Forward Error Correction (FEC)—Uncorrectable Words                                                                                                                                                                                                         |
| • VPC       | Valid Packet Count                                                                                                                                                                                                                                         |
| <MONVAL>    | The value to which the register identified by MONTYPE is to be initialized to or the measured value of a monitored parameter. The value is in the form of numeric counts or rates. MONVAL is a string.                                                     |
| <VLDTY>     | Indicates whether the information for the specified time period was accumulated over the entire time period or a portion of that time period. Validity indicator for the reported PM data. The parameter type is VALIDITY, which is the response validity. |
| • COMPL     | Complete response                                                                                                                                                                                                                                          |
| • PRTL      | Partial response                                                                                                                                                                                                                                           |
| <LOCN>      | Location associated with a particular command in reference to the entity identified by the AID. The parameter type is LOCATION, which is the location where the action is to take place.                                                                   |
| • FEND      | Action occurs on the far end of the facility.                                                                                                                                                                                                              |
| • NEND      | Action occurs on the near end of the facility.                                                                                                                                                                                                             |
| <DIRN>      | Direction relative to the entity identified by the AID. Direction of PM relative to the entity identified by the AID. The parameter type is DIRECTION, which is the transmit and receive directions.                                                       |
| • BTH       | Both transmit and receive directions                                                                                                                                                                                                                       |
| • RCV       | Receive direction only                                                                                                                                                                                                                                     |
| • TRMT      | Transmit direction only                                                                                                                                                                                                                                    |
| <TMPER>     | Accumulation time period for performance counters. The parameter type is TMPER, which is the accumulation time period for the performance management center.                                                                                               |

|            |                                                                                                                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • 1-DAY    | Performance parameter accumulation interval length; every 24 hours. For SONET PM data only one day of history data is available. For RMON managed PM data seven days of history data are available. |
| • 1-HR     | Performance parameter accumulation interval length; every 1 hour. This is only applicable to RMON managed PM data. There are 24 hours of history data available.                                    |
| • 1-MIN    | Performance parameter accumulation interval length; every 1 minute. This is only applicable to RMON managed PM data. There are 60 minutes of history available.                                     |
| • 15-MIN   | Performance parameter accumulation interval length; every 15 minutes. There are 32 15-MIN buckets of history data available for this accumulation interval length.                                  |
| • RAW-DATA | Performance parameter accumulation interval length; starting from the last time the counters were cleared. This is only applicable to RMON managed PMs.                                             |
| <MONDAT>   | The beginning date of the PM or storage register period specified in TPPER. The format is MM-DD. MONDAT is a string.                                                                                |
| <MONTM>    | The beginning time of day of the PM or storage register period specified in TPPER. The format is HH-MM. MONTM is a string.                                                                          |

## 17.21 REPT SW

(Cisco ONS 15310-MA and Cisco ONS 15454) The Report Switch (REPT SW) message reports the autonomous switching of a unit in a duplex equipment pair to the standby state and its mate unit to the active state. An automatic report for the occurrence or clearance of an alarm or event that triggers the switch might be associated with the message.

**Usage Guidelines** None

**Category** Protection

**Security** Retrieve

**Output Format**

```

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

**Output Example**

```
TID-000 1998-06-20 14:30:00
A 100.100 REPT SW
  "SLOT-8,SLOT-10"
;
```

|                          |           |                                                                                                                                                                                                          |
|--------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Output Parameters</b> | <ACTID>   | Identifies the equipment unit from the “ <a href="#">26.15 EQPT</a> ” section on <a href="#">page 26-37</a> that was placed in the active state. Parameter grouping cannot be used with this parameter.  |
|                          | <STDBYID> | Identifies the equipment unit from the “ <a href="#">26.15 EQPT</a> ” section on <a href="#">page 26-37</a> that was placed in the standby state. Parameter grouping cannot be used with this parameter. |