



# CHAPTER 27

## Conditions



### Note

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

This chapter describes the conditions for TL1 commands and autonomous messages for the Cisco ONS 15454, Cisco ONS 15310-CL, Cisco ONS 15310-MA, and Cisco ONS 15600.

Conditions include any problem detected on an ONS 15454, ONS 15310-CL, ONS 15310-MA, or ONS 15600 shelf. They can include standing or transient notifications. A snapshot of all currently raised standing conditions on the network, node, or card can be retrieved in the Cisco Transport Controller (CTC) Conditions window or using the RTRV-COND commands. (In addition, some but not all cleared conditions are found in the CTC History tab.)

**Table 27-1**      **Conditions**

| Condition    | Description                                     |
|--------------|---|
| AIS          | Alarm Indication Signal                         |
| AIS-L        | Alarm Indication Signal-Line                    |
| AIS-P        | Alarm Indication Signal-Path                    |
| AIS-V        | Alarm Indication Signal-VT                      |
| ALS          | Automatic Laser Shutdown                        |
| APC-DISABLED | Automatic Power Control Disabled                |
| APC-FAIL     | Automatic Power Control Failure                 |
| APSB         | Byte Failure                                    |
| APSC-IMP     | Improper Automatic Protection Switch (APS) Code |
| APSCDFLTK    | Default K Byte                                  |
| APSCINCON    | Inconsistent APS Code                           |
| APSCM        | Protection Switching Channel Match Failure      |
| APSCNMIS     | Node ID Mismatch                                |
| APSIMP       | APS Invalid Mode                                |

Table 27-1 Conditions (continued)

| Condition        | Description  |
|------------------|--|
| APSM             | Automatic Protection Switch Mode Mismatch                            |
| AS-CMD           | Alarms Suppressed By User Command                                    |
| AS-MT            | Alarms Suppressed For Maintenance                                    |
| AU-LOF           | Loss of Frame (LOF)–Administration Unit–Loss of Multiframe           |
| AUD-LOG-LOSS     | Audit Log 100 Percent Full–Oldest records will be lost               |
| AUD-LOG-LOW      | Audit Log 80 Percent Full  |
| AUTOLSROFF       | Automatic Laser Shutoff Due To High Temperature                      |
| AUTORESET        | Automatic System Reset   |
| AUTOSW-AIS       | Automatic Path Protection Switch Caused By AIS                       |
| AUTOSW-LOP       | Automatic Path Protection Switch Caused By LOP                       |
| AUTOSW-PDI       | Automatic Path Protection Switch Caused By PDI                       |
| AUTOSW-SDBER     | Automatic Path Protection Switch Caused By SDBER                     |
| AUTOSW-SFBER     | Automatic Path Protection Switch Caused By SFBER                     |
| AUTOSW-UNEQ      | Automatic Path Protection Switch Caused By UNEQ                      |
| BAT-FAIL         | Battery Failure  |
| BAT-HGH-VLT      | High Volt  |
| BAT-LOW-VLT      | Low Volt   |
| BKUPMEM          | Primary Nonvolatile Backup Memory Failure                            |
| BLSROSYNC        | BLSR Out Of Sync   |
| CARLOSS          | Carrier Loss On The LAN  |
| CKTDOWN          | Signaling Unable to Set Up Circuit                                   |
| CLDRESTART       | Cold Restart   |
| COMIOXC          | Input/Output (IO) Slot To Cross-connect (XCON) Communication Failure |
| COMM-FAIL        | Plug-in Module Communication Failure                                 |
| CONTBUS-A-18     | TCC A To DCC A Processor Communication Failure                       |
| CONTBUS-B-18     | TCC B To DCC B Processor Communication Failure                       |
| CONTBUS_A        | Controller A To Shelf Slot Communication Failure                     |
| CONTBUS_B        | Controller B To Shelf Slot Communication Failure                     |
| CTNEQPT-MISMATCH | Connection Equipment Mismatch  |
| CTNEQPT-PBPROT   | Interconnection Equipment Failure–Protect XC Payload Bus             |
| CTNEQPT-PBWORK   | Interconnection Equipment Failure–Working XC Payload Bus             |
| DATAFLT          | Software Fault–Data Integrity Fault                                  |
| DBOSYNC          | Standby Database Out of Synchronization                              |
| DS3-MISM         | DS3 Frame Format Mismatch  |
| DSP-COMM-FAIL    | DSP Communication Failure  |

**Table 27-1** Conditions (continued)

| Condition          | Description  |
|--------------------|--|
| DSP-FAIL           | DSP Failure  |
| DUP-IPADDR         | IP address already in use within the same data communications channel (DCC) area |
| DUP-NODENAME       | Node name already in use within the same DCC area                                |
| E-W-MISMATCH       | Both Ends Of Fiber Provisioned As East Or Both As West                           |
| EHIBATVG           | Extreme High Voltage   |
| ELWBATVG           | Extreme Low Voltage  |
| EOC                | Section DCC (SDCC) Termination Failure   |
| EOC-L              | Line DCC (LDCC) Termination Failure  |
| EQPT               | Equipment Failure  |
| EQPT-MISS          | Replaceable Equipment/Unit is Missing  |
| ERFI-P-CONN        | Enhanced Remote Failure Indication–Path–Connectivity                             |
| ERFI-P-PAYLD       | Enhanced Remote Failure Indication–Path–Payload                                  |
| ERFI-P-SRVR        | Enhanced Remote Failure Indication–Path–Server                                   |
| ERROR-CONFIG       | Error in Startup Configuration   |
| ETH-LINKLOSS       | Rear Panel Ethernet Link Removed   |
| EXCCOL             | Excess Collisions on the LAN   |
| EXERCISE-RING-FAIL | Exercise Request on Ring Failed  |
| EXERCISE-RING-REQ  | Exercise Request on Ring   |
| EXERCISE-SPAN-FAIL | Exercise Request on Span Failed  |
| EXERCISE-SPAN-REQ  | Exercise Request on Span   |
| EXT                | Failure Detected External To The NE  |
| EXTRA-TRAF-PREEMPT | Extra Traffic Preempted  |
| FAILTOSW           | Failure To Switch To Protection  |
| FAILTOSW-PATH      | Failure To Switch To Protection–Path   |
| FAILTOSWR          | Failure To Switch To Protection–Ring   |
| FAILTOSWS          | Failure To Switch To Protection–Span   |
| FAN                | Fan Failure  |
| FANDEGRADE         | Partial Fan Failure  |
| FE-AIS             | Far End AIS  |
| FE-DS1-MULTLOS     | Far End Multiple DS1 LOS Detected On DS3   |
| FE-DS1-NSA         | Far End DS1 Equipment Failure–Non-Service-Affecting                              |
| FE-DS1-SA          | Far End DS1 Equipment Failure–Service-Affecting                                  |
| FE-DS1-SNGLLOS     | Far End Single DS1 Loss of Signal (LOS)  |
| FE-DS3-NSA         | Far End DS3 Equipment Failure–Non-Service-Affecting                              |
| FE-DS3-SA          | Far End DS3 Equipment Failure–Service-Affecting                                  |

Table 27-1 Conditions (continued)

| Condition           | Description  |
|---------------------|--|
| FE-EQPT-NSA         | Far End Common Equipment Failure–Non-Service-Affecting       |
| FE-EXERCISING-RING  | Far End Exercising Ring                                      |
| FE-EXERCISING-SPAN  | Far End Exercising Span                                      |
| FE-FRCDWKSWPR-RING  | Far End Working Facility Forced To Switch To Protection–Ring |
| FE-FRCDWKSWPR-SPAN  | Far End Working Facility Forced To Switch To Protection–Span |
| FE-IDLE             | Far End Idle   |
| FE-LOCKOUTOFPR-SPAN | Far End Lockout Of Protection–Span                           |
| FE-LOF              | Far End LOF  |
| FE-LOS              | Far End LOS  |
| FE-MANWKSWPR-RING   | Far End Manual Switch Of Working Facility To Protection–Ring |
| FE-MANWKSWPR-SPAN   | Far End Manual Switch Of Working Facility To Protection–Span |
| FEC-MISM            | FEC Mismatch   |
| FEPRLF              | Far End Protection Line Failure                              |
| FORCED-REQ          | Forced Switch Request  |
| FORCED-REQ-RING     | Forced Switch Request On Ring                                |
| FORCED-REQ-SPAN     | Forced Switch Request On Span                                |
| FRCDSWTOINT         | Forced Switch To Internal Clock                              |
| FRCDSWTOPRI         | Forced Switch To Primary Reference                           |
| FRCDSWTOSEC         | Forced Switch To Second Reference                            |
| FRCDSWTOHTRD        | Forced Switch To Third Reference                             |
| FRNGSYNC            | Free Running Synchronization Mode                            |
| FSTSYNC             | Fast Start Synchronization Mode                              |
| FULLPASSTHR-BI      | Bidirectional Full Pass Through Is Active                    |
| GCC-EOC             | GCC Termination Failure                                      |
| GE-OOSYNC           | Gigabit Ethernet Out of Synchronization                      |
| HI-LASERBIAS        | Equipment High Laser Bias                                    |
| HI-RXPOWER          | Equipment High Receive (Rx) Power                            |
| HI-TXPOWER          | Equipment High Transmit (Tx) Power                           |
| HITEMP              | High Temperature   |
| HLDOVRSYNC          | Holdover Synchronization Mode                                |
| I-HITEMP            | Industrial High Temperature                                  |
| IMPROPRMVL          | Improper Removal   |

**Table 27-1** Conditions (continued)

| Condition                 | Description   |
|---------------------------|---|
| INC-GFP-OUTOFFRAME        | Out Of Frame Detected by Generic Framing Procedure (GFP) Receiver |
| INC-GFP-SIGLOSS           | Client Signal Loss Frames Detected by GFP Receiver                |
| INC-ISD                   | DS3 Idle Condition  |
| INC-SIGLOSS               | Incoming Signal Loss on Fibre Channel Interface                   |
| INC-SYNCLOSS              | Incoming Synchronization Loss on Fibre Channel Interface          |
| INC_GFP_SYNCLOSS          | Client Synchronization Loss Frames Detected by GFP Receiver       |
| INHSWPR                   | Inhibit Switch To Protect Request On Equipment                    |
| INHSWWKG                  | Inhibit Switch To Working Request On Equipment                    |
| INTRUSION-PSWD            | Security Intrusion Attempt Detected—See Audit Log                 |
| INVMACADR                 | Invalid MAC Address   |
| IOSCFGCOPY                | IOS Configuration Copy In Progress                                |
| KB-PASSTHR                | K Byte Pass Through Is Active                                     |
| KBYTE-APS-CHANNEL-FAILURE | K Byte Channel Failure  |
| LAN-POL-REV               | LAN Connection Polarity Reversed                                  |
| LASEREOL                  | Laser Approaching End of Life                                     |
| LKOUTPR-S                 | Lockout Of Protection—Span  |
| LMP-HELLODOWN             | LMP Hello FSM to Control Channel Down                             |
| LMP-NDFAIL                | LMP Neighbor Discovery has failed                                 |
| LO-RXPOWER                | Equipment Low Rx Power  |
| LO-TXPOWER                | Equipment Low Tx Power  |
| LOA                       | Loss of Alignment   |
| LOC                       | Loss of Channel   |
| LOCKOUT-REQ               | Lockout Switch Request On Facility or Equipment                   |
| LOCKOUT-REQ-RING          | Lockout Switch Request On Ring                                    |
| LOF                       | Loss Of Frame   |
| LOM                       | Loss of Multiframe  |
| LOP-P                     | Loss Of Pointer—Path  |
| LOP-V                     | Loss Of Pointer—VT  |
| LOS                       | Loss Of Signal  |
| LPBKCRS                   | Cross-connect Loopback  |
| LPBKDS1FEAC               | DS1 Loopback Due To Far End Alarm and Control (FEAC) Command      |
| LPBKDS1FEAC-CMD           | DS1 Loopback Command Sent To Far End                              |
| LPBKDS3FEAC               | DS3 Loopback Due To FEAC Command                                  |
| LPBKDS3FEAC-CMD           | DS3 Loopback Command Sent To Far End                              |

Table 27-1 Conditions (continued)

| Condition          | Description                                |
|--------------------|--|
| LPBKFACILITY       | Facility Loopback                          |
| LPBKTERMINAL       | Terminal Loopback                          |
| LWBATVG            | Low Volt                                   |
| MAN-REQ            | Manual Switch Request                      |
| MANRESET           | Manual System Reset                        |
| MANSWTOINT         | Manual Switch To Internal Clock            |
| MANSWTOPRI         | Manual Switch To Primary Reference         |
| MANSWTOSEC         | Manual Switch To Second Reference          |
| MANSWTOHIRD        | Manual Switch To Third Reference           |
| MANUAL-REQ-RING    | Manual Switch Request On Ring              |
| MANUAL-REQ-SPAN    | Manual Switch Request On Span              |
| MEA                | Mismatch Of Equipment And Attributes       |
| MEM-GONE           | Free Memory On Card Near Zero              |
| MEM-LOW            | Free Memory On Card Very Low               |
| MFGMEM             | Manufacturing Data Memory (EEPROM Failure) |
| NO-CONFIG          | No Startup Config                          |
| NTWTPINC           | Network Topology Incomplete                |
| OCHNC-ACTIV-FAIL   | Optical Channel Activation Failure         |
| OCHNC-DEACTIV-FAIL | Optical Channel Deactivation Failure       |
| OCHNC-FAIL         | Optical Channel Connection Failure         |
| OCHNC-INC          | Optical Channel Incomplete                 |
| ODUK-AIS-PM        | ODUk: Alarm Indication Signal              |
| ODUK-BDI-PM        | ODUk: PM Backward Defect Indication        |
| ODUK-LCK-PM        | ODUk: Locked Defect-PM                     |
| ODUK-OCI-PM        | ODUk: Open Connection Indication           |
| ODUK-SD-PM         | ODUk: Signal Degrade                       |
| ODUK-SF-PM         | ODUk: Signal Failure                       |
| ODUK-TIM-PM        | ODUk: Trail Trace Identifier Mismatch      |
| OOU-TPT            | Out of Use-Transport Failure               |
| OPTNTWMIS          | Optical Network Type Mismatch              |
| OTUK-AIS           | OTUk: Alarm Indication Signal              |
| OTUK-BDI           | OTUk: Backward Defect Indication           |
| OTUK-LOF           | OTUk: Loss Of Frame                        |
| OTUK-SD            | OTUk: Signal Degrade                       |
| OTUK-SF            | OTUk: Signal Failure                       |
| OTUK-TIM           | OTUk: Trail Trace Identifier Mismatch      |

**Table 27-1** Conditions (continued)

| Condition       | Description   |
|-----------------|---|
| OUT-OF-SYNC     | 8B10B Out of Sync   |
| PDI-P           | Payload Defect Indication–Path                                  |
| PEER-NORESPONSE | Peer Card Not Responding  |
| PLM-P           | Payload Label Mismatch–Path                                     |
| PLM-V           | Signal Label Mismatch Failure–Payload Label Mismatch–VT         |
| PORT-CODE-MISM  | Pluggable Port security code mismatch                           |
| PORT-COMM-FAIL  | Module Communication Failure                                    |
| PORT-MISMATCH   | Pluggable Port rate mismatch                                    |
| PORT-MISSING    | Pluggable Port missing  |
| PRC-DUPID       | Duplicate Node ID   |
| PROTNA          | Protection Unit Not Available                                   |
| PTIM            | Payload Type Identifier Mismatch                                |
| PWR-REDUN       | Redundant Power Capability Lost                                 |
| RAI             | Remote Alarm Indication   |
| RCVR-MISS       | Facility Termination Equipment–Receiver Missing                 |
| RFI             | Remote Failure Indication                                       |
| RFI-L           | Remote Failure Indication–Line                                  |
| RFI-P           | One-Bit Remote Failure Indication–Path                          |
| RFI-V           | Remote Failure Indication–VT                                    |
| RING-ID-MIS     | Ring ID Mismatch  |
| RING-MISMATCH   | Far End of Fiber Is Provisioned With Different Ring ID          |
| RING-SW-EAST    | Ring Switch Is Active on the East Side                          |
| RING-SW-WEST    | Ring Switch Is Active on the West Side                          |
| RSVP-HELLODOWN  | RSVP Hello FSM to Neighbor Down                                 |
| RUNCFG-SAVENEED | Need to Save Running Configuration                              |
| SD              | Signal Degrade  |
| SD-L            | Bit Error Rate (BER) Threshold Exceeded For Signal Degrade–Line |
| SD-P            | BER Threshold Exceeded For Signal Degrade–Path                  |
| SF              | Signal Failure  |
| SF-L            | BER Threshold Exceeded For Signal Failure–Line                  |
| SF-P            | BER Threshold Exceeded For Signal Failure–Path                  |
| SFTWDOWN        | Software Download In Progress                                   |
| SNTP-HOST       | Simple Network Time Protocol (SNTP) Host Failure                |
| SPAN-SW-EAST    | Span Switch Is Active On The East Side                          |
| SPAN-SW-WEST    | Span Switch Is Active On The West Side                          |

Table 27-1 Conditions (continued)

| Condition  | Description  |
|------------|--|
| SQM        | Sequence Mismatch  |
| SQUELCH    | Ring Is Squelching Traffic                                     |
| SQUELCHED  | Equipment Squelched  |
| SSM-DUS    | Do Not Use For Synchronization                                 |
| SSM-FAIL   | Failed To Receive Synchronization Status Message               |
| SSM-LNC    | G812–Local Node Clock Traceable                                |
| SSM-OFF    | Synchronization Status Messages Are Disabled On This Interface |
| SSM-PRC    | G811–Primary Reference Clock Traceable                         |
| SSM-PRS    | Stratum 1 Primary Reference Source Traceable                   |
| SSM-RES    | Reserved For Network Synchronization Use                       |
| SSM-SDH-TN | G812–Transit Node Clock Traceable                              |
| SSM-SETS   | G813–Synchronous Equipment Timing Source Traceable             |
| SSM-SMC    | SONET Minimum Clock Traceable                                  |
| SSM-ST2    | Stratum 2 Traceable  |
| SSM-ST3    | Stratum 3 Traceable  |
| SSM-ST3E   | Stratum 3E Traceable   |
| SSM-ST4    | Stratum 4 Traceable  |
| SSM-STU    | Synchronized–Traceability Unknown                              |
| SSM-TNC    | Transit Node Clock Traceable                                   |
| SWMTXMOD   | Switching Matrix Module Failure                                |
| SWTOPRI    | Switch To Primary Reference                                    |
| SWTOSEC    | Switch To Second Reference                                     |
| SWTOTHIRD  | Switch To Third Reference                                      |
| SYNC-FREQ  | Synchronization Reference Frequency Out Of Bounds              |
| SYNCPRI    | Primary Synchronization Reference Failure                      |
| SYNCSEC    | Secondary Synchronization Reference Failure                    |
| SYNCTHIRD  | Third Synchronization Reference Failure                        |
| SYSBOOT    | System Reboot  |
| TIM        | TIM Section–Trace Identifier Mismatch Failure                  |
| TIM-MON    | TIM Section Monitor–Trace Identifier Mismatch Failure          |
| TIM-P      | STS Path Trace Identifier Mismatch                             |
| TPTFAIL    | Transport layer failure  |
| TRMT       | Transmit Failure   |
| TRMT-MISS  | Facility Termination Equipment–Transmitter Missing             |
| TUNDERRUN  | Ethernet Transmit First In First Out Underrun                  |



**Table 27-1** *Conditions (continued)*

| <b>Condition</b> | <b>Description</b>                              |
|------------------|---|
| TX-AIS           | Alarm Indication Signal in Tx                   |
| TX-RAI           | Remote Alarm Indication in Tx                   |
| UNC-WORD         | Forward Error Correction (FEC) Uncorrected Word |
| UNEQ-P           | Unequipped-Path                                 |
| UNEQ-V           | Signal Label Mismatch Failure-Unequipped VT     |
| VCG-DEG          | Virtual Concatenation (VCAT) Group Degraded     |
| VCG-DOWN         | VCAT Group Down                                 |
| WKSWPR           | Switched To Protection                          |
| WTR              | Wait To Restore                                 |
| WVL-MISMATCH     | Equipment Wavelength Mismatch                   |

