Cisco ONS 15530 System Alarms and Error Messages

This document lists and describes system alarms and error messages for the Cisco ONS 15530. The system software sends these alarms and error messages to the console (and, optionally, to a logging server on another system) during operation. Not all error messages indicate problems with your system. Some are purely informational, while others might help diagnose problems with links, internal hardware, or the system software.

This document includes the following sections:

About System Alarms and Error Messages

System alarms are associated with a physical entity such as a module or a chassis. Unlike simple error messages, the state of an alarm persists until an assert or clear event changes its state.

When an alarm state changes, you see an associated error message describing whether the alarm is asserted or cleared. The associated error message also displays the severity and description of the entity plus the alarm type.

Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

You can display the current state of alarms by using the **show facility-alarm status** command on the active CPU switch module, as in the following example:

```
Switch# show facility-alarm status
System Totals  Critical: 0  Major: 2  Minor: 1

Source              Severity      Description [Index]
------              --------      -------------------
Power Supply 1      MAJOR         Power supply unit has failed [0]
Gigab4/0/4          INFO          Keep-alive timeout event [12]
PSC card 5          MINOR         Unprotected. Peer missing [9]
Wavep2/0/0          MAJOR         Low alarm threshold exceeded for
                                  Receive Power (in dBm)
Wavep2/0/0          INFO          Low warning threshold exceeded for
                                  Receive Power (in dBm)
```

Note The number that appears at the beginning of the description is the index of the alarm.

How to Read System Alarms and Error Messages

The list of system alarms and error messages is organized according to the system facility that produces the messages, in alphabetical order. Within each system facility section, messages are listed alphabetically by mnemonics. Each error message is followed by an explanation and a recommended action. System alarms and error messages appear only when the system remains operational.

Error message severity levels correspond to the keywords assigned by the **logging** global configuration commands that define where and at what level these messages appear. The default is to log messages to the console at the debugging level (7).

System error messages begin with a percent sign and are structured as follows:

```
%FACILITY-SEVERITY-MNEMONIC : Message-text
```

`FACILITY` is a code consisting of two or more uppercase letters that indicate the facility to which the alarm or error message refers. A facility is a hardware device, a protocol, or a module of the system software. Table 1 lists the system facility codes.

Table 1 System Facility Codes

Code	Facility
APS	Automatic protection switching
CI	Chassis hardware
COUNTER_SYNC	Redundant CPU switch module
CPU_REDUN	Redundant CPU switch module
CRYPTO_SYNC	Redundant CPU switch module
ESCON	ESCON aggregation card
FILESYS	File system
GEFC	8-port FC/GE aggregation card
HAMPTONS	All HAMPTONS error codes have been renamed ONS15530. Please see the "ONS15530" section on page 71.

Table 1 System Facility Codes (continued)

Code	Facility
IPC	Interprocessor communications
LC_10G	10-Gbps ITU trunk card
LC_2GFC	4-port 1-Gbps/2-Gbps FC aggregation card
LC_2P5G	2.5-Gbps ITU trunk card
LCMDC	Module hardware
METOPT	Defect indication
METOPT_DRV	Generic driver alarms
MRC	8-port multi-service muxponder alarms
ODM	Online diagnostic manager
OIR	Online insertion and removal
ONS15530	ONS 15530 system
OPTICAL_CFG_SYNC	Redundant CPU switch module
OPTICAL_IF	Optical interface
OPTICAL_IF_ALARMS	Optical interface alarms
OSCP	Optical Supervisory Channel Protocol
PATCH	Optical patch
PERF_HISTORY	Performance History
RF	Redundancy framework
SFP_SECURITY	Small form-factor pluggables
SRC	Switch card redundancy controller
SYS	System
VOA	Variable optical attenuator

SEVERITY is a single-digit code that reflects the severity of the condition. The SEVERITY code for system alarms (shown in Table 2) and error messages (shown in Table 3) are different.

System alarm SEVERITY codes range from 0 to 3 and reflect the severity of the alarm. The lower the number, the more serious the alarm. Table 2 lists the severity levels.

Table 2 Alarm Message Severity Levels

Level	Description
0 – critical	Critical condition
1 – major	Immediate action needed
2 – minor	Minor alarm condition
3 – informational	Informational message only

Error message SEVERITY codes range from 0 to 7 and reflect the severity of the condition. The lower the number, the more serious the situation. Table 3 lists the severity levels.

Table 3 System Error Message Severity Levels

Level	Description
0 – emergency	System unusable
1 – alert	Immediate action needed
2 – critical	Critical condition
3 – error	Error condition
4 – warning	Warning condition
5 – notification	Normal but significant condition
6 – informational	Informational message only
7 – debugging	Appears during debugging only

`MNEMONIC` is a code that uniquely identifies the error message.

`Message-text` is a text string that describes the condition. This portion of the message might contain detailed information about the event, including terminal port numbers, network addresses, or addresses that correspond to locations in the system memory address space. Because the information in these variable fields changes from message to message, it is represented here by short strings enclosed in square brackets (`[ ]`). A decimal number, for example, is represented as `[dec]`.

Table 4 lists the representations of variable fields and the type of information in the fields.

A sample error message follows:

```
%LCMDC-3-EOP_NOLG_PALM: Egress Loss of Light Prealarm: Slot [dec] Subcard [dec] Port [dec]
```

Table 4 Representation of Variable Fields in Alarms and Error Messages

Representation	Type of Information
[dec]	Decimal number
[hex]	Hexadecimal number
[char]	Single character
[chars]	Character string

Meaning of Ingress and Egress in Error Messages

If the term “ingress” appears in an error message, it refers to *client* interfaces and the fault is associated with the client equipment. This term appears in the following example:

%LCMDC-3-FH_ILOSY_ALM: Ingress FC/ESCON Loss of Sync; Slot [dec] Subcard [dec] Port [dec]

If the term “egress” appears in an error message, it refers to a transponder wave interface on the *trunk* side, and the fault originates from the remote node. This term appears in the following example:

%LCMDC-3-ECDRLK_ALM : Egress CDR Locking error; Slot [dec] Subcard [dec] Port [dec]

Error Message Traceback Reports

A number of messages describe internal errors and contain traceback information. This information is very important and should be included when you report a problem to your technical support representative.

The following sample error message includes traceback information:

Error Message `-Process= ”Exec”, level= 0, pid= 17`
`-Traceback= 1A82 1AB4 6378 A072 1054 1860`

System Alarms and Error Messages

This section includes the Cisco ONS 15530 software error messages. They are grouped according to the facility codes listed in Table 1.

APS

Error Message `%APS-2-INITSYS:`

Explanation A software error occurred during initialization of the APS subsystem.

Recommended Action Check for sufficient CPU switch module memory.

Error Message `%APS-3-PORT_FAIL: Port Fail On:`

Explanation The APS subsystem receives a port fail indication from the driver subsystem. The specified interface detected a failure condition (for example, loss of light).

Recommended Action Isolate the cause of the failure and restore the interface to normal operational condition.

Error Message `%APS-1-NO_ACTIVE: No Active Port In Group:`

Explanation After an active interface failure, the system switches over to the standby interface if APS is enabled. This message appears if after a switchover the system finds no active interface; that is, both working and protection interfaces are found to be nonoperational.

Recommended Action Isolate the cause of the failure on both the working and protection interfaces.

Error Message `%APS-6-AUTOFOVER:`

Explanation The APS hardware successfully switched over to the standby interface after the failure of the active interface.

Recommended Action Isolate the cause of the failure of the previous active interface and restore it to a normal operational condition.

Error Message `%APS-2-INTRNLERR:`

Explanation The APS software detected an internal error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%APS-6-ENAUTFOVR:`

Explanation The APS software enables hardware to perform APS actions for failures detected by the hardware.

Recommended Action This message is informational only.

Error Message `%APS-6-DISAUTFOV:`

Explanation APS disabled autofailover for the indicated group.

Recommended Action Check the condition of the protection line in the corresponding APS group.

Error Message `%APS-6-ADJUSTMODE:`

Explanation The local APS group was configured for bidirectional operation but the associated remote APS group was configured for unidirectional operation. The local network element detects the mismatch, changes the operation to unidirectional, and posts this message.

Recommended Action Configure the remote APS group for bidirectional operation or the local node to unidirectional.

Error Message `%APS-6-BIDIRSWCH:`

Explanation The local network element posts this message only after an APS switchover that is triggered by an APS request from the remote network element.

Recommended Action This message is informational only.

Error Message `%APS-2-CHNLCFGMM:`

Explanation The local network element posts this message if it detects a Far End Protection Failure condition. This failure is detected if the Far End Protection Defect count exceeds a threshold. The local network element detects a Far End Protection Defect when it receives a remote APS message with request set to SF (signal fail) and request channel set to 0 (null or protection channel).

Recommended Action Isolate the cause of the failure on the protection channel on the remote network element.

Error Message `%APS-2-PSBF:`

Explanation The local network element posts this message if it detects a Protection Switch Byte Failure. This failure is detected when the Protection Switch Byte defect count exceeds a threshold. A Protection Switch Byte Defect is detected when one of the following happens:

1. The remote APS request is not one of the supported requests.
2. The remote APS request channel number is invalid. For 1+1 APS, the channel number must be 0 or 1.
3. Operation is bidirectional and neither local nor remote network element is sending a REVERSE-REQUEST, and the remote APS request is of lower priority than the local APS request.
4. Operation is bidirectional and the sequence number in the remote APS REVERSE-REQUEST does
not match the sequence number of the most recent APS request sent by the local network element.

Recommended Action Check for failures on the APS communication channel. Isolate the cause for such failures and restore the communication channel to working condition.

Error Message `%APS-2-MODEMISMATCH:`

Explanation The local network element posts this message if the local APS group was configured for bidirectional operation but the associated remote APS group was configured for unidirectional operation. A mismatch in mode (unidirectional or bidirectional) was detected.

Recommended Action Configure the remote APS group for bidirectional operation or the local node to unidirectional operation.

Error Message `%APS-2-CHNLMISMATCH:`

Explanation The received bridged channel number (in the REVERSE-REQUEST from the remote network element) does not match the request channel number in the APS request sent by the local network element. This message only applies to bidirectional operation.

For 1+1 APS, this message is normally not posted unless the transmit bridged channel number in the REVERSE-REQUEST from the remote network element is somehow corrupted or there is a bug in the APS software itself.

Recommended Action Check for any failures on the APS communication channel. If the APS communication channel is operational, contact Cisco TAC.

Error Message `%APS-2-FEPF:`

Explanation The APS subsystem fails to create a UDP socket for exchanging APS channel protocol messages over an APS message channel configured for IP. This usually is due to a low memory condition in the system.

Recommended Action Reload the system software.

Error Message `%APS-2-NOSOCKET: Failed To Open Socket`

Explanation The APS subsystem fails to create a UDP socket for exchanging APS channel protocol messages over an APS message channel configured for IP. This usually is due to a low memory condition in the system.

Recommended Action Reload the system software.

Error Message `%APS-6-CHNLACTIVE:`

Explanation A standby channel becomes the active channel.

Recommended Action This message is informational only.

CI

Error Message `%CI-0-SHUTFANGONE: System shutting down due to missing fan tray.`

Explanation The chassis fan tray is not installed or fails.

Recommended Action Check fan tray.

Error Message `%CI-1-CHASSISTEMPCRITICAL: Alarm: ASSERT, CRITICAL, Chassis, Chassis temp > critical limit`

Explanation The system chassis temperature critical limit (80˚C) has been exceeded.

Recommended Action Reduce the chassis temperature immediately by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions probably exists. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-1-FAN_MISSING: Alarm: ASSERT, CRITICAL, Chassis, Chassis fan tray missing`

Explanation The system does not detect the presence of a fan tray.

Recommended Action Check fan tray.

Error Message `%CI-1-NOFAN: Alarm: ASSERT, CRITICAL, Chassis, Chassis fan tray missing`

Explanation The system does not detect the presence of a fan tray.

Recommended Action Check fan tray.

Error Message `%CI-1-TOTALFANFAIL: Alarm: ASSERT, CRITICAL, Chassis, Two or more fans failed.`

Explanation Two or more of the fans in the chassis fan tray failed.

Recommended Action Check the fan tray.

Error Message `%CI-2-CHASSISTEMPMAJOR: Alarm: ASSERT, MAJOR, Chassis, Chassis temp > major temperature limit`

Explanation The system chassis temperature critical limit (75˚C) has been exceeded.

Recommended Action Reduce the chassis temperature immediately by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions probably exists. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-2-MAJOR_TEMP: Alarm: ASSERT, MAJOR, Chassis, Chassis temp > major limit`

Explanation The inlet temperature is greater than or equal to 75˚C or the outlet temperature is greater than or equal to 85˚C.

Recommended Action Reduce the chassis temperature by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions might exist. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-2-MAJOR_TEMP_LOW: Alarm: ASSERT, MAJOR, Chassis, Chassis temp less than –15 C`

Explanation The chassis inlet or outlet temperature is less than –15˚C.

Recommended Action Increase the ambient environmental temperature to greater than –15˚C.

Error Message `%CI-2-TOTAL_BLOWER_FAIL: Alarm: ASSERT, MAJOR, Chassis, two or more fans failed`

Explanation Two or more of the fans in the chassis fan tray failed.

Recommended Action Two or more of the fans in the chassis fan tray failed. Check the fan tray.

Error Message `%CI-3-CHASSISTEMPLOW: Alarm: ASSERT, MINOR, Chassis, Chassis temp > low limit`

Explanation The system chassis temperature critical limit (–15˚C) has been exceeded.

Recommended Action Increase the ambient environmental temperature to greater than –15˚C.

Error Message `%CI-3-CHASSISTEMPMINOR: Alarm: ASSERT, MINOR, Chassis, Chassis temp > minor limit`

Explanation The system chassis temperature critical limit (65˚C) has been exceeded.

Recommended Action Reduce the chassis temperature immediately by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions might exist. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-3-MINOR_TEMP: Alarm: ASSERT, MINOR, Chassis, Chassis temp > minor limit`

Explanation The inlet temperature is greater than or equal to 65˚C or the outlet temperature is greater than or equal to 75˚C.

Recommended Action Reduce the chassis temperature immediately by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions might exist. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-3-NOACK: Access to %s temperature sensor failed`

Explanation Access to chassis temperature sensor failed.

Recommended Action Switch over to the standby CPU switch module. If the problem persists, remove and reinsert the failing CPU switch module. If the problem still persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%CI-3-NOFORK: Couldn't start environment polling daemon`

Explanation The environment monitoring daemon process could not be started during initialization.

Recommended Action Power cycle the Cisco ONS 15530. If the problem persists, report it to Cisco technical support.

Error Message `%CI-3-PARTFANFAIL: Alarm: ASSERT, MINOR, Chassis, One fan failed`

Explanation One of the fans in the chassis fan tray failed.

Recommended Action Check the fan tray.

Error Message `%CI-3-PS_FAIL: Power supply module [dec] failure`

Explanation The specified power supply failed.

Recommended Action Ensure that the power supply is screwed in properly. If the problem persists, remove and reinsert the power supply. If the problem still persists, replace the power supply.

Error Message `%CI-3-PWRA_FAIL: Alarm: ASSERT, MINOR, Chassis, Chassis power supply A missing`

Explanation Power source A is not in the system.

Recommended Action Install power source A if redundancy is required.

Error Message `%CI-3-PWRA_FAIL: Alarm: ASSERT, MINOR, Chassis, Chassis power supply B missing`

Explanation Power source B is not in the system.

Recommended Action Install power source B if redundancy is required.

Error Message `%CI-4-MULTIPLE_FAN_FAILURE:Line cards will be shutdown in 60 seconds`

Explanation Two or more fans have failed and the system will power off or reset the line cards in the shelf to prevent damage from overheating.

Caution Do not save the startup configuration file after the line cards shutdown. This action would result in losing the previous configuration.

Recommended Action Power cycle the chassis after the to restart after resolving the fan failure.

Error Message `%CI-6-CHASSISTEMPOK: Alarm: ASSERT, INFORMATIONAL, Chassis, Chassis temp > Informational`

Explanation The temperature of the system core is normal.

Recommended Action This message is informational only.

Error Message `%CI-6-FANFAIL_SHUTDOWN:Line cards are being shutdown on fan failure.`

Explanation Two or more fans have failed and the system is powering off or resetting the line cards in the shelf to prevent damage from overheating.

Recommended Action Power cycle the chassis to restart after resolving the fan failure.

Error Message `%CI-6-FANOK: Fan tray module OK`

Explanation Chassis fan tray is operating normally.

Recommended Action This message is informational only.

Error Message `%CI-6-FANOK: Alarm: ASSERT, Chassis, Fan tray module OK`

Explanation The fan tray is operating normally.

Recommended Action This message is informational only.

Error Message `%CI-6-PS_MISSING: Power supply module [dec] missing`

Explanation The power supply is not present in the system.

Recommended Action Insert a power supply if redundancy is required.

Error Message `%CI-6-PS_OK: Power supply module [dec] OK`

Explanation The specified power supply is operating normally.

Recommended Action This message is informational only.

Error Message `%CI-6-PS_OK: Alarm: ASSERT, Chassis, Power supply module 0 OK`

Explanation The specified power supply is operating normally.

Recommended Action This message is informational only.

Error Message `%CI-6-PS_OK: Alarm: ASSERT, Chassis, Power supply module 1 OK`

Explanation The specified power supply is operating normally.

Recommended Action This message is informational only.

Error Message `%CI-6-PS_PRESENT: Alarm: ASSERT, Chassis, Power supply module 0 present`

Explanation The specified power supply is present in the system.

Recommended Action This message is informational only.

Error Message `%CI-6-PS_PRESENT: Alarm: ASSERT, Chassis, Power supply module 1 present`

Explanation The specified power supply is present in the system.

Recommended Action This message is informational only.

Error Message `%CI-1-CRITICALTEMP_LC_SHUT: Alarm: ASSERT, CRITICAL, Chassis, Critical temperature linecard shutdown`

Explanation The operating temperature has exceeded the critical threshold temperature and the system is powering off or resetting the line cards in the shelf to prevent damage from overheating.

Recommended Action Reduce the chassis temperature immediately by checking for the following: blocked air intake, fan tray failure, abnormal ambient environmental conditions, temperature sensor failures, and system hardware failures. One or more of these conditions might exist. Use the **show temperature** command to determine the current temperatures, the thresholds, and the number and type of alarms raised.

Error Message `%CI-1-CHASSISFAULTYSENSOR: Alarm: ASSERT, CRITICAL, Chassis, Chassis temperature sensor is faulty`

Explanation The temperature sensor of the chasis is not operating normally.

Recommended Action Check the chassis temperature sensor.

COUNTER_SYNC

Error Message `%COUNTER_SYNC-3-TRANSMIT_ERROR: Unable to transmit message type`

Explanation A transmit error occurred while sending a message to the standby CPU switch module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%COUNTER_SYNC-3-NO_BUFFER: No memory to sync`

Explanation A transmit error occurred because the buffer was unavailable while sending a message to the standby CPU switch module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%COUNTER_SYNC-3-ENCODE_ERROR: Counter record mismatch`

Explanation A mismatch in error counters encoded and in error counters for the interface was detected.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%COUNTER_SYNC-3-SUBSYS_COMPAT: Standby CPU switch module does not preserve counters on switchover`

Explanation The standby CPU switch module does not preserve the counters on switchover because it is missing the counter sync subsystem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%COUNTER_SYNC-3-STATUS:`

Explanation The interface counter sync failed on successive tries.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

CPU_REDUN

Error Message `%CPU_REDUN-2-INITSYS: CPU REDUN failed RF client registration`

Explanation The processor redundancy facility client registration fails.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf might be required to resolve the problem.

Error Message `%CPU_REDUN-2-INITSYS: CPU REDUN missing translation index entry`

Explanation The processor redundancy facility cannot find a translation index when synchronizing messages between image versions.

Recommended Action Check for compatible software images on the active and standby CPU switch modules.

Error Message `%CPU_REDUN-2-INITSYS: Unable to create CPU REDUN process`

Explanation The processor is unable to create the redundancy facility process.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%CPU_REDUN-3-BKPLN_IDPROM_ACCESS: Alarm: ASSERT, MAJOR, CPU slot [dec], Can't access bkpln IDPROM`

Explanation The alarm appears when the processor cannot access the backplane IDPROM.

Recommended Action Confirm the processor is fully seated into the chassis slot.

Error Message `%CPU_REDUN-3-CAPAB_SIZE: Mismatch in [chars]. Active=[dec], Standby=[dec].`

Explanation The standby processor reports lower versions than the active processor. See message text for the type of limitation.

Recommended Action Check for sufficient standby CPU switch module memory for the type of memory indicated.

Error Message `%CPU_REDUN-3-CAPAB_VERS: Mismatch in [chars]. Active=[dec].[dec], Standby=[dec].[dec]`

Explanation The standby processor reports lower capabilities than the active processor. See message text for the type of limitation.

Recommended Action Check standby CPU switch module functional version numbers.

Error Message `%CPU_REDUN-3-CAPABILITIES: Alarm: ASSERT, MINOR, CPU slot [dec], Standby with lower capabilities`

Explanation The alarm appears when the capabilities reported by the standby CPU switch module are less than the active CPU switch module. The processors are conditionally redundant, which means that a switchover could result in a partial loss of system control.

Recommended Action Upgrade either the peer software version or the hardware capability as indicated by the mismatched capability in the **show redundancy capability** command output.

Error Message `%CPU_REDUN-3-DRIVER_MISSING: Missing [chars] driver support on Standby. Active=[dec].[dec]`

Explanation The standby processor is missing support for one of the drivers available on the active processor. The corresponding module fails in the event of a switchover.

Recommended Action You might need to upgrade the software image on the standby processor.

Error Message `%CPU_REDUN-3-DRIVER_VERSIONS: Mismatch in [chars] driver versions. Active=[dec].[dec], Standby=[dec].[dec]`

Explanation The standby processor reports lower driver versions than the active processor. See message text for the type of limitation.

Recommended Action Check standby processor system image version numbers.

Error Message `%CPU_REDUN-3-EHSA_SVCS: cannot open standby port [chars]`

Explanation The enhanced high system availability (EHSA) standby port is not opened between processors.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%CPU_REDUN-3-EHSA_SVCS: Can't communicate config register to Standby.`

Explanation The configuration registers cannot be copied to the standby processor.

Recommended Action Confirm that IPC (interprocessor communications) is up.

Error Message `%CPU_REDUN-3-EHSA_SVCS: Can't open slave port for EHSA msgtype [chars]`

Explanation The connection between processors cannot transfer a specific enhanced high system availability (EHSA) message.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%CPU_REDUN-3-EHSA_SVCS: cant_send_bootvar`

Explanation The bootvar (boot variable) cannot be copied between processors.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-EHSA_SVCS: Didn't receive response for EHSA msgtype [chars]`

Explanation The connection between processors cannot transfer an enhanced high system availability (EHSA) message is not received form the standby processor.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-EHSA_SVCS: standby CPU can not create named port [chars]`

Explanation The standby processor cannot configure a specific port.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%CPU_REDUN-3-EHSA_SVCS: standby CPU can not register named port [chars]`

Explanation The standby processor cannot register a specific port.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-EHSA_SVCS: Standby CPU can't allocate response for msgtype [chars]`

Explanation The standby processor cannot create a response to a specific enhanced high system availability (EHSA) message.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%CPU_REDUN-3-EHSA_SVCS: standby CPU can't register with IPC port mgr for [chars]`

Explanation The standby processor cannot register a specific port manager.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-EHSA_SVCS: Unable to create time sync process`

Explanation The time enhanced high system availability (EHSA) synchronization process is not created between processors.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf might be required to resolve the problem.

Error Message `%CPU_REDUN-3-INCONSISTENT_STATES: Alarm: ASSERT, MAJOR, CPU slot [dec], Inconsistent redun states`

Explanation The alarm appears when the processor redundancy state is either not consistent with the state or the software state is not consistent with the hardware state.

Recommended Action Confirm both CPU switch modules are fully seated into the chassis slots.

Error Message `%CPU_REDUN-3-INIT_ERROR: Could not create peer cpu idb 0 0`

Explanation The processor cannot create an interface data block for the interprocessor communication interface.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf might be required to resolve the problem.

Error Message `%CPU_REDUN-3-INIT_ERROR: Couldn't create master control port 0 0`

Explanation The processor cannot create a master control port.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf might be required to resolve the problem.

Error Message `%CPU_REDUN-3-INIT_ERROR: Delayed IPC registration didn't succeed 0 0`

Explanation The processor was unable to queue a request for delayed interprocess communication registration.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf might be required to resolve the problem.

Error Message `%CPU_REDUN-3-INIT_ERROR: MAX_CLIENTS exceeded. (Client Count, MAX_CLIENTS) = [dec] [dec]`

Explanation The processor detects the maximum number of client connections has been exceeded.

Recommended Action Check for compatible software images on the active and standby CPU switch modules.

Error Message `%CPU_REDUN-3-INIT_ERROR: MAX_DRIVERS exceeded. (Driver Count, MAX_DRIVERS) = [dec] [dec]`

Explanation The processor detects the maximum number of controller drivers has been exceeded.

Recommended Action Check for compatible software images on the active and standby CPU switch modules.

Error Message `%CPU_REDUN-3-INIT_ERROR: metopt_get_peer_client_version (ClientID, MAX_CLIENT_ID) = [dec] [dec]`

Explanation processor redundancy facility cannot arbitrate the client CPU switch module image versions.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%CPU_REDUN-3-INIT_ERROR: metopt_init_local_version table init error by ClientID=[dec] [dec]`

Explanation The error occurs when processor redundancy encounters a client ID error in the local version table.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%CPU_REDUN-3-INIT_ERROR: metopt_init_vers_translation table init error by ClientID= [dec] [dec]`

Explanation The error occurs when processor redundancy encounters a client ID error in the translation table.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%CPU_REDUN-3-INIT_ERROR: Unable to read backplane IDPROM 0, 0`

Explanation The processor cannot read the IDPROM on the backplane.

Recommended Action Check that the processor module is fully seated in the chassis slot. If the problem persists, remove and reinsert the standby CPU switch module. If the problem still persists, contact Cisco technical support.

Error Message `%CPU_REDUN-3-INVALID_CPU_STATES: Detected invalid redundancy states, local = [chars], peer = [chars]`

Explanation The processor detects an invalid combination of redundant states.

Recommended Action Check that both CPU switch modules are firmly seated in their chassis slots.

Error Message `%CPU_REDUN-3-INVALID_MSG: Incorrectly formatted message ([dec], [dec]) received by SLO channel`

Explanation An inconsistent data message is received from the peer processor, possibly due to an incompatible image version.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%CPU_REDUN-3-LOCK_ERR: Can't get Global Lock`

Explanation The peer processor would not relinquish the arbitration lock.

Recommended Action Check that both the local and peer processors are fully seated in the backplane. Check the status of the peer processor using the **show redundancy** command.

Error Message `%CPU_REDUN-3-MULTI_CARD_ACCESS: Alarm: ASSERT, MAJOR, CPU slot [dec], Can't access multiple linecards`

Explanation The alarm appears when the processor fails the line card access test for multiple line cards.

Recommended Action Verify that the processor can access the line cards. If so, replace the failed CPU switch module.

Error Message `%CPU_REDUN-3-PCI_TEST: Alarm: ASSERT, MAJOR, CPU slot [dec], PCI diag failure`

Explanation The alarm appears when the processor fails the online diagnostic internal PCI bus test.

Recommended Action Replace the processor.

Error Message `%CPU_REDUN-3-PCMCIA_TEST: Alarm: ASSERT, MINOR, CPU slot [dec], PCMCIA diag failure`

Explanation The alarm appears when the processor fails the online diagnostic internal PC card slot test.

Recommended Action Replace the processor.

Error Message `%CPU_REDUN-3-PEER_COMM: Alarm: ASSERT, MINOR, CPU slot [dec], Unprotected. Peer not responding`

Explanation The alarm appears when the peer processor is present but not responding or sending keepalives.

Recommended Action If this condition persists, check the status of the standby CPU switch module. This alarm is suppressed by changing the redundancy configuration to maintenance mode.

Error Message `%CPU_REDUN-3-PEER_MISSING: Alarm: ASSERT, MINOR, CPU slot [dec], Unprotected. Peer missing`

Explanation The alarm appears when the peer processor is either missing or cannot be detected. The active CPU switch module currently is not being protected.

Recommended Action Insert a compatible CPU switch module into the standby peer chassis slot if redundancy is required. This alarm is suppressed by changing the redundancy configuration to maintenance mode.

Error Message `%CPU_REDUN-3-PEER_SEVERITY_ERR: Invalid peer CPU severity ([dec]) (current peer register=[hex])`

Explanation The peer processor reports an invalid severity value.

Recommended Action Check that both the local and peer processors are fully seated in the backplane.

Error Message `%CPU_REDUN-3-PEER_SRC_REGS: Alarm: ASSERT, MAJOR, CPU slot [dec], Read invalid SRC regs from peer`

Explanation The alarm appears when the active CPU switch module is detecting bad parity on the active or standby status bits read from the standby CPU switch module.

Recommended Action Confirm both CPU switch modules are firmly seated in their chassis slots. Replace the standby CPU switch module.

Error Message `%CPU_REDUN-3-PEER_STATE_ERR: Invalid peer CPU state ([chars]) (current peer register=[hex])`

Explanation The peer processor reports an invalid redundancy state.

Recommended Action Check that both the local and peer processors are fully seated in the backplane.

Error Message `%CPU_REDUN-3-RCSF: Unable to sync running config to standby`

Explanation The active processor is unable to send running configuration file to standby processor.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-RCSF_FAIL:Attempt to sync running config to standby failed`

Explanation Running configuration file changed but was not successfully synchronized with the standby CPU switch module.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-READBACK_ERR: Can't change my state. desired state [chars], read-back [chars]`

Explanation The local processor cannot set its redundancy state to the desired calculated value.

Recommended Action If accompanied by a LOCK_ERR, disregard. Otherwise this might indicate a processor module fault. Either the SRC is overriding the processor state or there is a fault with the SRC or arbitration hardware.

Error Message `%CPU_REDUN-3-SLOT_IDPROM_MISMATCH: Alarm: ASSERT, MAJOR, CPU slot [dec], IDPROM/bkpln slot mismatch`

Explanation The alarm appears when the slot ID read from the backplane IDPROM does not match the slot ID read from the SRC.

Recommended Action Confirm the processor is fully seated into the chassis slot. If so, confirm that the backplane IDPROM slot IDs are consistent with the actual slot position.

Error Message `%CPU_REDUN-3-SRC_TEST: Alarm: ASSERT, MAJOR, CPU slot [dec], SRC diag failure`

Explanation The alarm appears when the processor failed the online diagnostic internal SRC test.

Recommended Action Remove and reinsert the CPU switch module. If the problem persists, reload the shelf. If the problem still persists, replace the CPU switch module.

Error Message `%CPU_REDUN-3-STARTUP_SYNC_FAIL:Attempt to sync startup config to standby failed`

Explanation Startup configuration file changed but was not successfully synchronized with the standby CPU switch module.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%CPU_REDUN-3-SUBSYS_COMPAT: [chars] [chars] software subsystem. Active=[dec], Standby=[dec]`

Explanation A specific software subsystem is not compatible with the active and standby image versions.

Recommended Action The standby processor software subsystem is old or missing. See message text for software subsystem type. It might result in feature losses in the event of a switchover.

Error Message `%CPU_REDUN-3-SW_STATE_MISMATCH: Software state ([chars]) doesn't reflect local hardware ([chars])`

Explanation The software state is not following the underlying hardware redundancy state.

Recommended Action Confirm that the processor is firmly seated in the chassis.

Error Message `%CPU_REDUN-3-UNKNOWN_COMMON: Alarm: ASSERT, MINOR, CPU slot [dec], Unknown alarm (metro family)`

Explanation The alarm appears when this is asserted for a standby CPU switch module with a different software image. It indicates that there is an alarm condition on the peer that the active CPU switch module cannot decode. If this is asserted for the active CPU switch module, it indicates a software error condition.

Recommended Action If asserted for the standby CPU switch module, check the status of the standby CPU switch module and use the **show logging** command on the standby console connection to search for any error messages indicating an alarm condition.

Error Message `%CPU_REDUN-3-UNKNOWN_MSG: Unknown message type [chars] received by Sby EHSA svc`

Explanation An unknown message type is received from the peer processor, possibly due to an incompatible image version.

Recommended Action Check status and configuration of the standby processor.

Error Message `%CPU_REDUN-3-UNKNOWN_MSG: Unknown message type [chars] received by SLO channel`

Explanation An unknown message type is received from the peer processor, possibly due to an incompatible image version.

Recommended Action Check status and configuration of the standby processor.

Error Message `%CPU_REDUN-3-UNKNOWN_MSG: Unknown message type [chars] received by Standby CPU`

Explanation An unknown message type is received from the peer processor, possibly due to an incompatible image version.

Recommended Action Check status and configuration of the standby processor.

Error Message `%CPU_REDUN-3-UNKNOWN_MSG: Unknown message type [hex] received by Active CPU`

Explanation An unknown message type is received from the peer processor, possibly due to an incompatible image version.

Recommended Action Check status and configuration of the standby processor.

Error Message `%CPU_REDUN-3-UNKNOWN_PLAT: Alarm: ASSERT, MINOR, CPU slot [dec], Unknown alarm (platform-specific)`

Explanation The alarm appears when it is asserted for a standby CPU switch module with a different software image and indicates an alarm condition on the standby CPU switch module that the active CPU switch module cannot decode. If this alarm is asserted for the active CPU switch module, it indicates a software error condition.

Recommended Action If asserted for the standby CPU switch module, check the status of the standby CPU switch module and use the **show logging** command on the standby CPU switch module console connection to search for any error messages indicating an alarm condition.

Error Message `%CPU_REDUN-4-UNPROTECTED:Peer CPU hasn't reached Hot Standby after [dec] minutes.`

Explanation The system is running for an extended period in an unprotected mode even though a peer processor is present.

Recommended Action Check the status of the peer processor. If it is not running the system image, boot it. Configure maintenance mode to suppress error messages.

Error Message `%CPU_REDUN-5-NEGOTIATED_SWITCHOVER: Reloading due to negotiated switchover, sev = [dec]`

Explanation A switchover occurred due to a change in either the severity or state of one of the CPU switch modules as a result of either a hardware or software fault.

Recommended Action Check the status of the new standby CPU switch module and replace it if it is faulty.

Error Message `%CPU_REDUN-5-PEER_EXITED_IOS:Peer CPU has exited IOS`

Explanation The peer CPU switch module exited IOS and temporarily returned to ROM monitor mode. This might indicate either a user initiated reload or a software crash.

Recommended Action If the peer CPU switch module rebooted, run the **show stacks** command to verify if a crash stack trace was recorded. Check the **show version** command output to verify the reported reason for return to ROM monitor mode.

Error Message `%CPU_REDUN-5-PEER_REMOVED:Peer CPU has been removed from the chassis`

Explanation The peer CPU switch module was either partially or fully removed from the chassis.

Recommended Action If the peer CPU switch module is still physically present in the chassis, check to make sure that both CPU switch modules are fully seated in their slots.

Error Message `%CPU_REDUN-5-RCSF_SYNCED:Running config successfully synced to standby`

Explanation The running configuration successfully synchronized with the standby CPU switch module.

Recommended Action This message is informational only.

Error Message `%CPU_REDUN-5-RELOAD_COMM_DOWN: Reloading standby since Active CPU shows loss of comm.`

Explanation A reload of the standby CPU switch module occurred because the active CPU switch module reported that it considered communications to the standby CPU switch module were down.

Recommended Action Check that both CPU switch modules are firmly seated in the chassis slots. If they are, check that communications are up between the CPU switch modules.

Error Message `%CPU_REDUN-5-STARTUP_CONFIG_SYNCED:Startup config successfully synced to standby`

Explanation The startup configuration file successfully synchronized with the standby CPU switch module.

Recommended Action This message is informational only.

Error Message `%CPU_REDUN-5-STATE_MISMATCH_RELOAD: Reloading due to a hardware software state mismatch.`

Explanation A reload occurred because the software state is not consistent with the CPU switch module hardware state as a result of either a hardware or software fault.

Recommended Action Check the status of the CPU switch module that issued the error message and replace it if it is faulty.

Error Message `%CPU_REDUN-5-SWITCHOVER:Switchover occurred. Reason:[chars]`

Explanation A CPU switch module redundancy switchover recently took place.

Recommended Action Check the reason for the redundancy switchover. If due to activeUnitFailed, check the status of the peer CPU switch module hardware.

Error Message `%CPU_REDUN-6-BOOTED_AS_ACTIVE:After returning to ROM by [chars]`

Explanation This CPU switch module initially came up as active and no switchovers have occurred.

Recommended Action This message is informational only.

Error Message `%CPU_REDUN-6-RUNNING_CONFIG_CHG:Running config on this CPU has possibly changed`

Explanation The running configuration file might have changed as a result of a global configuration command entered from the CLI.

Recommended Action This message is informational only.

Error Message `%CPU_REDUN-6-STARTUP_CONFIG_CHG:Startup config on this CPU has possibly changed`

Explanation Startup configuration file has possibly changed as a result of a user configuration command.

Recommended Action This message is informational only.

Error Message `%CPU_REDUN-5-UNSUPPORTED_MSG:SLAVE_SERVICES_SETTIME_REQ sent by EHSA svcs unsupported by peer`

Explanation Standby CPU switch module is not running the same system software version.

Recommended Action Update standby CPU switch module to the same system software version as the active CPU switch module.

CRYPTO_SYNC

Error Message `%CRYPTO_SYNC-3-TRANSMIT_ERROR: Unable to transmit message`

Explanation A transmit error occurred while sending a message to the standby CPU switch module because of a message translation.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%CRYPTO_SYNC-3-NO_BUFFER: No memory to sync`

Explanation A transmit error occurred because the buffer was unavailable while sending a message to the standby CPU switch module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%CRYPTO_SYNC-3-SUBSYS_COMPAT: Standby is missing the Crypto Sync subsystem`

Explanation The standby CPU switch module does not preserve the crypto keys on switchover because it is missing the crypto sync subsystem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%CRYPTO_SYNC-3-UNKNOWN_MSG: Unknown message received`

Explanation An unknown message type was received from the peer CPU switch module, possibly because of an incompatible image version.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

ESCON

Error Message `%ESCON-3-ESCON_RDWRFAIL: Read/write failed`

Explanation The read/write error occurred when accessing the hardware.

Recommended Action Remove and reinsert the ESCON aggregation card. If the problem persists, power cycle the Cisco ONS 15530. If the problem still persists, replace the ESCON aggregation card.

Error Message `%ESCON-3-MIB_LOSS_OF_LIGHT_ALM: Transceiver Loss of Light`

Explanation The client side transceiver detects a loss of light on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%ESCON-3-MIB_LOSS_OF_LOCK_ALM: Transceiver CDR Loss of Lock`

Explanation The client side transceiver detects a loss of lock on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP.

Error Message `%ESCON-3-MIB_LOSS_OF_SYNC_ALM: Transceiver Loss of Sync`

Explanation The client side transceiver detects a loss of sync on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP.

Error Message `%ESCON-3-MIB_LASER_TX_FLT_ALM: Optic Laser Transmit Fault`

Explanation The client laser transmission fails.

Recommended Action Remove and reinsert the ESCON SFP optics. If the problem persists, replace the ESCON SFP optics.

Error Message `%ESCON-3-MIB_HW_LASER_DOWN_ALM: Laser Disabled`

Explanation The client laser is disabled on an ESCON aggregation card.

Recommended Action Check remote client receive cable and SFP optics.

Error Message `%ESCON-3-MIB_LOCAL_FL_LASER_DOWN_ALM: Local Failure, Laser Disabled`

Explanation The client laser is disabled on an ESCON aggregation card.

Recommended Action Check trunk and switch fabric connection.

Error Message `%ESCON-3-LOSS_OF_LIGHT_ALM: Transceiver Loss of Light`

Explanation A transceiver cable is cut or removed on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%ESCON-3-LASER_TX_FAULT_ALM: Optic Laser Transmit Fault`

Explanation An optical laser transmission fails on an ESCON aggregation card.

Recommended Action Remove and reinsert the ESCON SFP optics. If the problem persists, replace the ESCON SFP optics.

Error Message `%ESCON-3-LOSS_OF_LOCK_ALM: Transceiver CDR Loss of Lock`

Explanation The CDR cannot lock onto a signal on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%ESCON-3-LOSS_OF_SYNC_ALM: Transceiver Loss of Sync`

Explanation Loss of synchronization error on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%ESCON-3-HW_LASER_DOWN_ALM: Remote Loss of Light`

Explanation Optics laser is disabled on the remote node on an ESCON aggregation card.

Recommended Action Check remote client receive cable and SFP optics.

Error Message `%ESCON-3-LOCAL_FL_LASER_DOWN_ALM: Local Failure`

Explanation Optics laser is disabled on the local node on an ESCON aggregation card.

Recommended Action Check trunk and switch fabric connection.

Error Message `%ESCON-3-SYM_ERR_THR_ALM: 8b/10b Error Threshold`

Explanation The 8b10b errors cross the threshold limit on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%ESCON-3-CRC16_ERR_THR_ALM: ESCON CRC-16 Error Threshold`

Explanation The CRC-16 errors cross the threshold limit on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics. If the problem persists, contact Cisco customer support.

Error Message `%ESCON-3-SEQ_ERR_THR_ALM: ESCON SEQ Error Threshold`

Explanation The SEQ errors cross the threshold limit on an ESCON aggregation card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%ESCON-3-HEC_ERR_THR_ALM: CDL-HEC Error Threshold`

Explanation The CDL HEC errors cross the threshold limit on an ESCON aggregation card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%ESCON-3-CRC32_ERR_THR_ALM: CRC-32 Error Threshold`

Explanation The CRC-32 errors cross the threshold limit on an ESCON aggregation card.

Recommended Action Check client receive cable and SFP optics. If problem the persists, contact Cisco customer support.

Error Message `%ESCON-3-ACCESS_FAIL: LRC access Failed`

Explanation LRC access fails on an ESCON aggregation card.

Recommended Action Remove and reinsert the ESCON aggregation card. If the problem persists, power cycle the Cisco ONS 15530. If the problem still persists, replace the ESCON aggregation card.

Error Message `%ESCON-3-IDPROM_ACCESS_FAIL: Access to IDPROM Failed`

Explanation Access to IDPROM fails on an ESCON aggregation card.

Recommended Action Remove and reinsert the ESCON aggregation card. If the problem persists, power cycle the Cisco ONS 15530. If the problem still persists, replace the ESCON aggregation card.

Error Message `%ESCON-3-INT_LPBK_FAIL: Internal CardLoopback Failed`

Explanation Internal card loopback fails on an ESCON aggregation card.

Recommended Action Remove and reinsert the ESCON aggregation card. If the problem persists, power cycle the Cisco ONS 15530. If the problem still persists, replace the ESCON aggregation card.

Error Message `%ESCON-3-LPBK_THRU_PSC_FAIL: Loopback through PSC Failed`

Explanation Loopback through PSC fails on an ESCON aggregation card.

Recommended Action Remove and reinsert the ESCON aggregation card. If the problem persists, power cycle the Cisco ONS 15530. If the problem still persists, replace the ESCON aggregation card.

FILESYS

Error Message `%FILESYS-4-RCSF: running config Too big to sync.. [dec]`

Explanation The file system detects that the running configuration file is too large to synchronize with the standby CPU switch module.

Recommended Action Check for sufficient CPU switch module memory. A reload of the shelf may be required to resolve the problem.

Error Message `%FILESYS-4-RCSF: Secondary running config close failed [chars] [chars]`

Explanation The file system tries to close the standby CPU switch module running configuration file and the process fails.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%FILESYS-4-RCSF: Secondary running config is not opened [chars]`

Explanation The standby CPU switch module running configuration file is not opened.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%FILESYS-4-RCSF: Secondary running config open failed [chars] [chars]`

Explanation The file system tries to open the standby CPU switch module running configuration file and the process fails.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%FILESYS-4-RCSF: Secondary running config write error [chars] [chars]`

Explanation The file system tries to write the standby CPU switch module running configuration file and the process fails.

Recommended Action Confirm that interprocessor communications (IPC) is working correctly. Use the **redundancy manual-sync running-config** command to reconfigure the system.

Error Message `%FILESYS-4-RCSF: Secondary running config write incomplete [chars]`

Explanation The file system tries to write the standby CPU switch module running configuration file and the process fails before completion.

Recommended Action Confirm that interprocessor communications (IPC) is working correctly. Use the **redundancy manual-sync running-config** command to reconfigure the system.

GEFC

Error Message `%GEFC-3-FPGA_NOT_SUPPORT: Functionalality not supported in image [chars]`

Explanation The 8-port FC/GE aggregation card functional image does not support flow control, autonegotiation, or ISC encapsulation.

Recommended Action Update the 8-port FC/GE aggregation card functional image to release 2.27 or later.

Error Message `%GEFC-3-GEFC_RDWRFAIL: Read/write failed`

Explanation A read/write error occurred when accessing the 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-3-GEFC_MAGICFAIL: Magic number read failed`

Explanation The functional image has reset on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-3-GEFC_INTRPEND: Pending unexpected interrupt`

Explanation One or more pending unexpected interrupts on an 8-port FC/GE aggregation card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%GEFC-3-GEFC_PTFAILASSERTED: Unexpected portfail asserted`

Explanation One or more unexpected port fails asserted on an 8-port FC/GE aggregation card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%GEFC-3-MIB_HW_LASER_DOWN_ALM: Laser Disabled`

Explanation A client laser is disabled.

Recommended Action Check client receive cable and SFP optics on an 8-port FC/GE aggregation card.

Error Message `%GEFC-3-MIB_LOSS_OF_LIGHT_ALM: Transceiver Loss of Light`

Explanation A client side loss of light occurred on an 8-port FC/GE aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%GEFC-3-MIB_LOSS_OF_LOCK_ALM: Loss of Lock`

Explanation A loss of lock occurred on an 8-port FC/GE aggregation card.

Recommended Action Check connecting cable and laser receive power levels.

Error Message `%GEFC-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync`

Explanation A loss of synchronization occurred on an 8-port FC/GE aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%GEFC-3-MIB_LASER_TX_FLT_ALM: Laser Transmit Fault`

Explanation A client laser transmission failure occurred on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-3-MIB_KPA_TIMEOUT_ALM: Keep-alive timeout`

Explanation Normal packets or CDL idle packets were not received.

Recommended Action Check CDL configurations at near and far end, and trunk and switch fabric connections.

Error Message `%GEFC-3-MIB_SFP_VENDOR_UNKNOWN: Unknown Vendor SFP inserted`

Explanation SFP optics is not Cisco qualified on an 8-port FC/GE aggregation card.

Recommended Action Replace with Cisco qualified SFP optics.

Error Message `%GEFC-3-LOSS_OF_LIGHT_ALM: Loss of Light`

Explanation A client side loss of light occurred on an 8-port FC/GE aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%GEFC-3-LOSS_OF_LOCK_ALM: Transceiver CDR Loss of Lock`

Explanation CDR is cannot lock onto a signal on an 8-port FC/GE aggregation card.

Recommended Action Check the connecting cable.

Error Message `%GEFC-3-LOSS_OF_SYNC_ALM: Transceiver Loss of Sync`

Explanation A loss of synchronization error occurred on an 8-port FC/GE aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%GEFC-3-LASER_TX_FAULT_ALM: Optic Laser Transmit Fault`

Explanation A transceiver laser transmission fault occurred on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card SFP optics. If the problem persists, replace the SFP optics.

Error Message `%GEFC-3-BDI_E_ALM: End-to-End Backward Defect Indication`

Explanation An end-to-end backward defect indication occurred on an 8-port FC/GE aggregation card.

Recommended Action Check CDL configurations at near and far end.

Error Message `%GEFC-3-KPA_TIMEOUT_ALM: Keep-alive timeout`

Explanation Normal packets or CDL idle packets were not received on an 8-port FC/GE aggregation card.

Recommended Action Check CDL configurations at near and far end, and trunk and switch fabric connections.

Error Message `%GEFC-3-TX_CRC_ERR_THR_ALM: GEFC TX CRC Error Threshold`

Explanation The Tx CRC errors cross the threshold on an 8-port FC/GE aggregation card.

Recommended Action Check trunk and switch fabric connection, if problem persists, contact Cisco customer support.

Error Message `%GEFC-3-ACCESS_FAIL: LRC access Failed`

Explanation LRC access failed on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-3-IDPROM_ACCESS_FAIL: Access to IDPROM Failed`

Explanation Access to IDPROM failed on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-3-INT_LPBK_FAIL: Internal CardLoopback Failed`

Explanation An internal card loopback failed on an 8-port FC/GE aggregation card.

Recommended Action Remove and reinsert the 8-port FC/GE aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%GEFC-6-FLOW_CTRL_ACTIVE: Flow control is active [chars]`

Explanation Flow control is active on the 8-port FC/GE aggregation port in the specified slot.

Recommended Action This message is informational only.

Error Message `%GEFC-6-FLOW_CTRL_DEACTIVE: Flow control is deactivated [chars]`

Explanation Flow control is not active on the 8-port FC/GE aggregation port in the specified slot.

Recommended Action This message is informational only.

HAMPTONS

All HAMPTONS error codes have been renamed ONS15530. Please see the "ONS15530" section on page 71.

IPC

Error Message `%IPC-2-CANT_SEND: Cannot send IPC message: [chars]`

Explanation The error occurs in the IPC standby discovery mechanism. It might result in a malfunction in the operation of the IPC and redundancy.

Recommended Action Examine the traceback for clues. Verify that the standby CPU switch module is in hot redundant state.

Error Message `%IPC-2-INVALSIZE: IPC message received with invalid size(size/type - [dec]/[dec])`

Explanation An IPC message is received with an invalid size.

Recommended Action The IPC message received has invalid size and is probably corrupted. The traceback should indicate the failed component.

Error Message `%IPC-2-LOCK: Lock done a deleted element`

Explanation An internal inconsistency was found in some IPC data structures.

Recommended Action Examine the traceback for clues. Verify that the standby CPU switch module is in hot redundant state.

Error Message `%IPC-2-NODISPATCH: Message for [dec].[dec] has no receive queue or dispatch routine`

Explanation An IPC caller fails to provide any means of handling a received message.

Recommended Action Someone created an IPC port with no handler for it. Use the output of the **show ipc ports** command to try to determine who created the port.

Error Message `%IPC-2-NOMEM: No memory available for Deferred-close Ports`

Explanation The IPC protocol subsystem cannot obtain the memory it needs.

Recommended Action There is not enough memory to initialize the required data structures needed by IPC. This message should appear only when the system is booting. If the IPC cannot initialize, add more memory to the system.

Error Message `%IPC-2-NOMEM: No memory available for failed to create [dec] messages`

Explanation The IPC protocol subsystem cannot obtain the memory it needs.

Recommended Action There is not enough memory to initialize the required data structures needed by IPC. This message should appear only when the system is booting. If the IPC cannot initialize, add more memory to the system.

Error Message `%IPC-2-NOMEM: No memory available for getbuffer fails`

Explanation The IPC protocol subsystem cannot obtain the memory it needs.

Recommended Action There is not enough memory to initialize the required data structures needed by IPC. This message should appear only when the system is booting. If the IPC cannot initialize, add more memory to the system.

Error Message `%IPC-2-NOMEM: No memory available for IPC platform initialization`

Explanation The IPC protocol subsystem cannot obtain the memory it needs.

Recommended Action There was not enough memory to initialize the required data structures needed by IPC. This message should appear only when the system is booting. If the IPC cannot initialize, add more memory to the system.

Error Message `%IPC-2-NOMEM: No memory available for IPC system initialization`

Explanation The IPC protocol subsystem cannot obtain the memory it needs.

Recommended Action There is not enough memory to initialize the required data structures needed by IPC. This message should appear only when the system is booting. If the IPC cannot initialize, add more memory to the system.

Error Message `%IPC-2-ONINT: Called from interrupt level: ipc_close_ports_on_seat()`

Explanation The IPC user issues a prohibited call into IPC while IPC is running on the interrupt stack.

Recommended Action Look at the traceback and the output of the **show ipc status** command to try to determine the cause of the problem.

Error Message `%IPC-2-ONINT: Called from interrupt level: ipc_remove_port()`

Explanation The IPC user issues a prohibited call into IPC while IPC is running on the interrupt stack.

Recommended Action Look at the traceback and the output of the **show ipc status** command to try to determine the cause of the problem.

Error Message `%IPC-2-ONINT: Called from interrupt level: ipc_remove_ports_on_seat()`

Explanation The IPC user issues a prohibited call into IPC while IPC is running on the interrupt stack.

Recommended Action Look at the traceback and the output of the **show ipc status** command to try to determine the cause of the problem.

Error Message `%IPC-2-PRECLOSE: IPC port pre-closure overflow : [dec] : [dec]`

Explanation An application attempts to close an IPC port when there are messages pending in the retransmit queue and the IPC defer table overflows.

Recommended Action Look at the traceback and the output of the **show ipc ports** command to try to determine the application that caused the problem.

Error Message `%IPC-2-UNLOCK: Unlock done on already unlocked element`

Explanation An internal inconsistency is found in some IPC data structures.

Recommended Action Examine the traceback for clues. Verify that the standby CPU switch module is in hot redundant state.

Error Message `%IPC-3-DELETED: Attempt to delete an IPC message ([hex]) a second time`

Explanation An internal inconsistency is found in some IPC data structures.

Recommended Action An IPC message was freed twice. Look at the traceback and the output of the **show ipc status** and **show ipc queue** commands to try to determine the cause of the problem.

Error Message `%IPC-3-GIANT: Request for giant IPC packet denied. Request size = [dec]`

Explanation An IPC caller requests a message that is too large for the IPC system.

Recommended Action Someone asked for an IPC message that was larger than the IPC system could handle. The traceback should point out the source of the request.

Error Message `%IPC-3-LOWBUFF: The main IPC message header cache below application reserve count ([dec]).`

Explanation The main IPC message header cache falls below the application reserve count.

Recommended Action The message cache is lower than the application reserve count, indicating that the application might drop data.

Error Message `%IPC-3-NOBUFF: The [chars] IPC message header cache has emptied`

Explanation The given IPC message header cache is empty.

Recommended Action The message cache emptied, indicating that no more IPC messages are sent. This might be caused by an IPC message buffer leak.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: ipc_fragment_first: message already has fragment.`

Explanation An IPC message is received with an invalid size. The IPC message received has an invalid size and is probably corrupted.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: ipc_remove_port: missing name.`

Explanation An internal inconsistency is found in some IPC data structures. An IPC caller probably passed on bad information.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: message data_buffer & data == NULL`

Explanation An internal inconsistency is found in some IPC data structures. An IPC caller probably passed on bad information.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: send_message: dest port send vector is NULL.`

Explanation An internal inconsistency was found in some IPC data structures. An IPC caller probably passed on bad information.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: send_message: input IPC dest port info is NULL.`

Explanation An internal inconsistency was found in some IPC data structures. An IPC caller probably passed on bad information.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-CONSISTENCY: Message failed consistency check: send_message: input IPC message is NULL.`

Explanation An internal inconsistency was found in some IPC data structures. An IPC caller probably passed on bad information.

Recommended Action The traceback should indicate the source of the problem.

Error Message `%IPC-4-GET_PAK_MSG: Failed for message size=[dec]`

Explanation The system is out of packet type buffers of required size.

Recommended Action It could be either of the following: transient, which might require image with reconfiguration of packet type buffers, or permanent which could be a leak (use traceback).

LC_10G

Error Message `%LC_10G-3-INTERNAL_ERROR:`

Explanation An error condition occurs on a 10-Gbps ITU trunk card.

Recommended Action Remove and reinsert the 10-Gbps ITU trunk card. If the problem persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_10G-3-INTERNAL_CRITICAL:`

Explanation A critical error condition occurs on a 10-Gbps ITU trunk card.

Recommended Action Remove and reinsert the 10-Gbps ITU trunk card. If the problem persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_10G-3-MIB_AFOVR_ERR_ALM: Optical Switch Error`

Explanation Optical switch error occurs on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-MIB_LOSS_OF_LOCK_ALM: Loss of Lock`

Explanation A loss of lock occurs on a 10-Gbps ITU trunk card.

Recommended Action Check network fiber and laser receive power levels.

Error Message `%LC_10G-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync`

Explanation A loss of synchronization occurs on a 10-Gbps ITU trunk card.

Recommended Action Check network fiber, the receiver power level, and the network clocking.

Error Message `%LC_10G-3-MIB_AFOVR_EVNT_ALM: AutoFailover Event`

Explanation An autofailover event occurs on a 10-Gbps ITU trunk card.

Recommended Action Check the interfaces and corresponding cables in the APS group.

Error Message `%LC_10G-3-MIB_LASER_TX_FLT_ALM: Laser Transmit Fault`

Explanation A trunk laser transmission failure occurs on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-MIB_LASER_TEMP_ALM: Laser Temperature Alarm`

Explanation A trunk laser temperature alarm occurs on a 10-Gbps ITU trunk card.

Recommended Action Ensure that the card was operating in the recommended temperature range. If the problem persists, replace the 10-Gbps card.

Error Message `%LC_10G-3-MIB_LASER_BIAS_ALM: Laser Bias Alarm`

Explanation A trunk laser bias alarm occurs on a 10-Gbps ITU trunk card.

Recommended Action Ensure that the card was operating in the recommended environmental range. If the problem persists, replace the 10-Gbps card.

Error Message `%LC_10G-3-MIB_AUTO_LASER_SHUTDOWN: Auto Laser Shutdown`

Explanation An automatic laser shutdown alarm occurs on a 10-Gbps ITU trunk card.

Recommended Action Check the network fiber and laser receive power levels.

Error Message `%LC_10G-3-AFOVR_ERR: Autofailover Error`

Explanation An optical switch failed to autofailover on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-LOSS_OF_LOCK: Transceiver Loss of Lock`

Explanation The receiver lost the lock on the incoming signal on a 10-Gbps ITU trunk card.

Recommended Action Check the network fiber and laser receive power levels.

Error Message `%LC_10G-3-LOSS_OF_SYNC: Transceiver Loss of Sync`

Explanation The decoder has lost the frame synchronization on a 10-Gbps ITU trunk card.

Recommended Action Clean the fiber and connector, and check the power level.

Error Message `%LC_10G-3-AFOVR_EVNT: Autofailover event occured`

Explanation An autofailover event occurs on a 10-Gbps ITU trunk card.

Recommended Action Check the interfaces and corresponding cables in the APS group.

Error Message `%LC_10G-3-LASER_TX_FAULT: Optic Laser Transmit Fault`

Explanation An optics laser transmit fault occurs on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-LASER_TEMP_ALARM: Optic Laser Temperature Alarm`

Explanation An optics laser temperature alarm occurs on a 10-Gbps ITU trunk card.

Recommended Action Ensure that the card was operating in the recommended temperature range and replace the 10-Gbps card if problem persists.

Error Message `%LC_10G-3-LASER_BIAS_ALARM: Optic Laser Bias Alarm`

Explanation An optics laser bias alarm occurs on a 10-Gbps ITU trunk card.

Recommended Action Ensure that the card was operating in the recommended environmental range and replace the 10-Gbps card if problem persists.

Error Message `%LC_10G-3-LASER_AUTO_SHUTDOWN: Auto Laser Shutdown`

Explanation An auto laser shutdown occurs on a 10-Gbps ITU trunk card.

Recommended Action Check the network fiber and received laser power levels.

Error Message `%LC_10G-3-SYML_ERR_THR: Symbol Errors threshold`

Explanation The symbol errors cross the threshold limit on a 10-Gbps ITU trunk card.

Recommended Action Check the network fiber and receive power levels.

Error Message `%LC_10G-3-CDL_HEC_ERR_THR: CDL HEC Errors threshold`

Explanation The CDL HEC errors cross the threshold limit on a 10-Gbps ITU trunk card.

Recommended Action Clean the fiber and connector and check the power level.

Error Message `%LC_10G-3-CRC_ERR_THR: CRC Errors threshold`

Explanation The CRC errors cross the threshold limit on a 10-Gbps ITU trunk card.

Recommended Action Clean the fiber and connector and check the power level.

Error Message `%LC_10G-3-ACCESS_FAIL:`

Explanation The read/write to the LRC scratch pad register fails on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-IDPROM_ACESS_FAIL:`

Explanation Reading and checking of IDPROM fails on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-ETH_DCC_LPBK_FAIL:`

Explanation Loopback through the Ethernet backplane fails on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-INT_LPBK_FAIL:`

Explanation Loopback internal to the card fails on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

Error Message `%LC_10G-3-LPBK_THRU_PSC_FAIL:`

Explanation Internal card loopback through PSC fails on a 10-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 10-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 10-Gbps ITU trunk card.

LC_2GFC

Error Message `%LC_2GFC-3-LC_2GFC_RDWRFAIL:Read/write failed:`

Explanation A read/write error occurred when accessing the 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-LC_2GFC_MAGICFAIL: Magic number read failed:`

Explanation The functional image reset on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-LC_2GFC_INTRPEND: Pending unexpected interrupt:`

Explanation One or more pending unexpected interrupts on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_2GFC-3-LC_2GFC_PTFAILASSERTED: One or more unexpected portfalls asserted:`

Explanation One or more unexpected port fails were asserted on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_2GFC-3-MIB_HW_LASER_DOWN_ALM: Client laser disabled:`

Explanation A client laser is disabled.

Recommended Action Check client receive cable and SFP optics on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Error Message `%LC_2GFC-3-MIB_LOSS_OF_LIGHT_ALM: Transceiver Loss of Light`

Explanation A client side loss of light occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%LC_2GFC-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync`

Explanation A loss of synchronization occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check client receive cable and SFP optics.

Error Message `%LC_2GFC-3-MIB_LASER_TX_FLT_ALM: Client laser transmit fault:`

Explanation A client laser transmission failure occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the transceiver on the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the transceiver. If the problem still persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-MIB_KPA_TIMEOUT_ALM: Keep-alive timeout:`

Explanation Packets were not received from far end.

Recommended Action Check the CDL configurations at the near and far end, and the trunk and switch fabric connections.

Error Message `%LC_2GFC-3-MIB_SFP_VENDOR_UNKNOWN: Unknown vendor SFP inserted:`

Explanation SFP optics is not Cisco qualified on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Replace with Cisco-qualified SFP optics.

Error Message `%LC_2GFC-3-MIB_FIFO_FULL_ALM: Egress FIFO full`

Explanation The egress FIFO (first-in, first-out) is full. More packets than expected are received from the far end or packets are not being sent to the client.

Recommended Action Match the interface configurations at the near and far end. Stop traffic and restart and report it to Cisco customer support. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-MIB_FIFO_EMPTY_ALM: Egress FIFO empty:`

Explanation The egress FIFO is empty. Packets were not received from far end.

Recommended Action Check the CDL configurations at the near and far end, and the trunk and switch fabric connections.

Error Message `%LC_2GFC-3-MIB_TXCRC_THRESHOLD_ALM: TX-CRC threshold exceeded:`

Explanation The Tx CRC errors exceeded the threshold on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the trunk and switch fabric connections, if the problem persists, contact Cisco customer support.

Error Message `%LC_2GFC-3-MIB_BDIE_ALM: BDI-E received:`

Explanation An end-to-end backward defect indication occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the CDL configurations at the near and far end.

Error Message `%LC_2GFC-3-MIB_RX_DEG_ALM: Rx degradation:`

Explanation CVRD errors exceed the threshold on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the client receive cable and SFP optics on the 4-port 1-Gbps/2-Gbps FC aggregation card.

Error Message `%LC_2GFC-3-HW_LASER_DOWN_ALM: Client laser disabled:`

Explanation A client laser is disabled.

Recommended Action Check the client receive cable and SFP optics on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Error Message `%LC_2GFC-3-LOSS_OF_LIGHT_ALM: Transceiver Loss of Light:`

Explanation A client side loss of light occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the client receive cable and SFP optics.

Error Message `%LC_2GFC-3-LOSS_OF_SYNC_ALM: Loss of Sync:`

Explanation A loss of synchronization occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the client receive cable and SFP optics.

Error Message `%LC_2GFC-3-LASER_TX_FLT_ALM: Client laser transmit fault:`

Explanation A client laser transmission failure occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the SFP on the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the transceiver. If the problem still persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-KPA_TINEOUT_ALM: Keep-alive timeout:`

Explanation Packets were not received from far end.

Recommended Action Check the CDL configurations at near and far end, and the trunk and switch fabric connections.

Error Message `%LC_2GFC-3-SFP_VENDOR_UNKNOWN: Unknown vendor SFP inserted:`

Explanation The SFP optics is not Cisco-qualified on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Replace with Cisco-qualified SFP optics.

Error Message `%LC_2GFC-3-BDIE_ALM: BDI-E received:`

Explanation An end-to-end backward defect indication occurred on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check if a keep alive timeout has occurred in the peer node. In addition, check the trunk and switch fabric connections.

Error Message `%LC_2GFC-3-TXCRC_THRESHOLD_ALM: TX-CRC thrshold exceeded:`

Explanation The Tx CRC errors cross the threshold on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the trunk and switch fabric connections, if the problem persists, contact Cisco customer support.

Error Message `%LC_2GFC-3-RX_DEG_ALM: Rx degradation:`

Explanation CVRD errors exceed threshold on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Check the client receive cable and SFP optics on the 4-port 1-Gbps/2-Gbps FC aggregation card.

Error Message `%LC_2GFC-3-FIFO_FULL_ALM: Egress FIFO full:`

Explanation The egress FIFO is full. More packets than expected are received from the far end or the packets are not being sent to the client.

Recommended Action Match the interface configurations at the near and far end. Stop traffic and restart and report it to Cisco customer support. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-FIFO_EMPTY_ALM: Egress FIFO empty:`

Explanation The egress FIFO is empty. Packets were not received from far end.

Recommended Action Check the CDL configurations at the near and far end, and the trunk and switch fabric connections.

Error Message `%LC_2GFC-3-ACCESS_FAIL: LRC access failed:`

Explanation LRC access failed on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-IDPROM_ACCESS_FAIL: Access to IDPROM failed:`

Explanation A read/write error occurred when accessing the 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-MEMORY_ACCESS_FAIL: Memory access failed:`

Explanation Access to memory failed on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-FPGA_ACCESS_FAIL: FPGA Access Failed:`

Explanation Access to the FPGA failed on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-INT_LPBK_FAIL: Internal CardLoopback Failed:`

Explanation An internal card loopback failed on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-3-UNKNOWN_SFP_INSERTED: Unknown SFP inserted:`

Explanation The SFP optics is not Cisco qualified on a 4-port 1-Gbps/2-Gbps FC aggregation card.

Recommended Action Remove and reinsert the 4-port 1-Gbps/2-Gbps FC aggregation card. If the problem persists, replace the card and report it to Cisco customer support.

Error Message `%LC_2GFC-6-FLOW_CTRL_ACTIVE: Flow control become active at slot:`

Explanation Flow control is active on the 4-port 1-Gbps/2-Gbps FC aggregation card port in the specified slot.

Recommended Action This message is informational only.

Error Message `%LC_2GFC-6-FLOW_CTRL_DEACTIVE: Flow control become inactive at slot:`

Explanation Flow control is not active on the 4-port 1-Gbps/2-Gbps FC aggregation card port in the specified slot. This problem may be due to one of the following reasons:

- Excess credits are present on the client.
- Zero credits are present on the client.
- The login from the local 4-port 1-Gbps/2-Gbps FC aggregation card to the remote 4-port 1-Gbps/2-Gbps FC aggregation card is incomplete.
- The login from the local client port to the remote client port is incomplete.

Recommended Action Identify the problem and take corrective action.

Error Message `%LC_2GFC-6-EXCESS_FRAME_ALM: Excess frame:`

Explanation The buffer credit configuration of the FC/FICON port on the 4-port 1-Gbps/2-Gbps FC aggregation card does not match the characteristics of the attached FC/FICON device. This might cause the far end 4-port 1-Gbps/2-Gbps FC aggregation card to transmit CRC errors, dropped frames, out-of-order frames, or duplicated frames, even if the link initially appears to operate error free in the presence of this alarm. This error occurs if you are using 4-port 1-Gbps/2-Gbps FC aggregation cards with Functional version 1.0. The problem can also occur while interoperating with 4-port 1-Gbps/2-Gbps FC aggregation cards with Functional version 1.0 or 8-port Fibre Channel/Gigabit Ethernet aggregation cards.

Recommended Action Configure asymmetric mode on all of the 4-port 1-Gbps/2-Gbps FC aggregation card twogigabitphy interfaces in the affected link (symmetric mode is the factory default) or, if feasible, configure equal buffer credits on the client devices at both ends of the FC/FICON link. Contact Cisco technical support if the affected link consists of one or more ports where symmetric or asymmetric mode configuration is unsupported.

Error Message `%LC_2GFC-3-FPGA_NOT_SUPPORT: Functional Image Version of the FC-4P line card at slot [dec] doesnt support Auto/Speed Negotiation functionality.`

Explanation The 4-port 1-Gbps/2-Gbps FC aggregation card functional image does not support speed negotiation.

Recommended Action Upgrade the 4-port 1-Gbps/2-Gbps FC aggregation card functional image to version 1.23 or later.

Error Message `%LC_2GFC-3-FPGA_NOT_SUPPORT: Functional Image Version of the FC-4P line card at slot [dec] doesnt support Oversubscription functionality.`

Explanation The 4-port 1-Gbps/2-Gbps FC aggregation card functional image does not support oversubscription.

Recommended Action Upgrade the 4-port 1-Gbps/2-Gbps FC aggregation card functional image to version 1.23 or later.

Error Message `%LC_2GFC-3-FPGA_NOT_SUPPORT: Functional Image Version of the FC-4P line card at slot [dec] doesnt support Subrate functionality.`

Explanation The 4-port 1-Gbps/2-Gbps FC aggregation card functional image does not support subrates.

Recommended Action Upgrade the 4-port 1-Gbps/2-Gbps FC aggregation card functional image to version 1.23 or later.

LC_2P5G

Error Message `%LC_2P5G-3-INTERNAL_ERROR:`

Explanation An internal error occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Remove and reinsert the 2.5-Gbps ITU trunk card. If the problem persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_2P5G-3-INTERNAL_CRITICAL:`

Explanation A critical error condition occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Remove and reinsert the 2.5-Gbps ITU trunk card. If the problem persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LC_2P5G-3-MIB_AFOVR_ERR_ALM: Optical Switch Error`

Explanation An optical switch error occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-MIB_LOSS_OF_LOCK_ALM: Loss of Lock`

Explanation A loss of lock occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check network fiber and laser receive power levels.

Error Message `%LC_2P5G-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync`

Explanation A loss of synchronization occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network fiber, the laser receive power levels, and the network clocking.

Error Message `%LC_2P5G-3-MIB_AFOVR_EVNT_ALM: AutoFailover Event`

Explanation An autofailover event occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check the interfaces and corresponding cables in the APS group.

Error Message `%LC_2P5G-3-MIB_LASER_TX_FLT_ALM: Laser Transmit Fault`

Explanation A trunk laser transmission failure occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-MIB_NO_LIGHT_ALM: Laser Loss of Light Alarm`

Explanation A trunk laser loss of light alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check the connecting cable and receive power level. If the problem persists, enable the remote laser with a **no laser shutdown** command on the waveethernetphy interface. If the problem still persists, ensure that the remote laser on the waveethernetphy interface is configured for the same laser frequency.

Error Message `%LC_2P5G-3-MIB_LASER_DEG_ALM: Laser Degradation Alarm`

Explanation A trunk laser degradation alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-MIB_LASER_WV_DEV_ALM: Laser Wavelength Deviation Alarm`

Explanation A trunk laser wavelength deviation alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-MIB_AUTO_LASER_SHUTDOWN: Auto Laser Shutdown`

Explanation An automatic laser shutdown alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check the connecting cable and received optical power levels.

Error Message `%LC_2P5G-3-MIB_CVRD_ERR_THR: CVRD Error Threshold Exceeded`

Explanation The CVRD errors cross the threshold limit on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%LC_2P5G-3-AFOVR_ERR: Autofailover Error`

Explanation An optical switch failed to autofailover on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-LOSS_OF_LOCK: Transceiver Loss of Lock`

Explanation The receiver lost the lock on the incoming signal on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network fiber and laser receive power levels.

Error Message `%LC_2P5G-3-LOSS_OF_SYNC: Transceiver Loss of Sync`

Explanation The decoder lost the frame synchronization on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network fiber, laser receive power levels, and network clocking.

Error Message `%LC_2P5G-3-AFOVR_EVNT: Autofailover event occured`

Explanation An autofailover occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check the interfaces and corresponding cables in the APS group.

Error Message `%LC_2P5G-3-LASER_TX_FAULT: Optic Laser Transmit Fault`

Explanation An optics laser transmission failure occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-LASER_DEGRADATION_ALARM: Optic Laser Degradation Alarm`

Explanation An optics laser degradation alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-LASER_WAVE_LN_DEV_ALARM: Optic Laser Wavelength Deviation Alarm`

Explanation Optic laser wavelength deviation alarm occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the waveethernetphy interface, issue a **laser shutdown**/**no laser shutdown** command sequence on the waveethernetphy interface, remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-LASER_AUTO_SHUTDOWN: Auto Laser Shutdown`

Explanation An automatic laser shutdown occurs on a 2.5-Gbps ITU trunk card.

Recommended Action Check network fiber and laser receive power levels.

Error Message `%LC_2P5G-3-SYML_ERR_THR: Symbol Errors threshold`

Explanation The symbol errors cross the threshold limit on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%LC_2P5G-3-CDL_HEC_ERR_THR: CDL HEC Errors threshold`

Explanation The CDL HEC errors cross the threshold limit on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%LC_2P5G-3-CRC_ERR_THR: CRC Errors threshold`

Explanation The CRC errors cross the threshold limit on a 2.5-Gbps ITU trunk card.

Recommended Action Check the network cable for sharp bends, and ensure the connectors are clean and connected properly.

Error Message `%LC_2P5G-3-ACCESS_FAIL: Access Fail`

Explanation The read/write to the LRC scratch pad register fails on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-IDPROM_ACCESS_FAIL: Idprom Access Fail`

Explanation Reading and checking the IDPROM fails on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-ETH_DCC_LPBK_FAIL: EthernetDcc loopback Fail`

Explanation A loopback through the Ethernet backplane fails on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-INT_LPBK_FAIL: Internal Card loopback Fail`

Explanation A loopback internal to the card fails on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

Error Message `%LC_2P5G-3-LPBK_THRU_PSC_FAIL: loopback through PSC Fail`

Explanation An internal card loopback through PSC fails on a 2.5-Gbps ITU trunk card.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the 2.5-Gbps ITU trunk card, power cycle the Cisco ONS 15530, and replace the 2.5-Gbps ITU trunk card.

LCMDC

Error Message `%LCMDC-3-CDL_HEC_ETX_ALM: CDL HEC Err count; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a converged data link header error control error.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-CDL_RFOF_IND: CDL Drop FIFO OvrFL; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a converged data link drop first-in-first-out error.

Recommended Action Check the network connection.

Error Message `%LCMDC-3-ECDRLK_ALM : Egress CDR Locking error; Slot [dec] Subcard [dec] Port [dec]`

Explanation The performance monitor on a transponder line card reports a loss of lock.

Recommended Action Ensure the encapsulation is configured correctly. If the problem persists, check the connecting cable and laser power levels.

Error Message `%LCMDC-3-EOP_NOLG_ALM: Egress Loss of Light; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card or an OADM module generates a loss of light error on an egress connection.

Recommended Action Check the connecting cable and laser power levels.

Error Message `%LCMDC-3-EOP_NOLG_PALM: Egress Loss of Light Prealarm: Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a loss of light pre-alarm error on an egress connection.

Recommended Action Check the connecting cable and laser power levels.

Error Message `%LCMDC-3-EOP_TKSW_ALM: Egress Trunk Switch Mech. Failure; Slot [dec] Subcard [dec] Port [dec]`

Explanation An optical switch in the transponder line card generates a mechanical error.

Recommended Action Issue a **shutdown**/**no shutdown** command sequence on the wave interface. If the problem persists, remove and reinsert the transponder line card. If the problem still persists, copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%LCMDC-3-ESERPHERR_ALM Egress Serdes Phase Error; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card or an OADM module generates a serializer-deserializer phase error on an egress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-FH_ECETX_ALM: Egress Fiber Channel/ESCON Line Err; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a Fibre Channel or ESCON line error on an egress connection.

Recommended Action Check the network connection for proper power level.

Error Message `%LCMDC-3-FH_ELOSY_ALM: Egress FC/ESCON Loss of Sync; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a Fibre Channel or ESCON loss of synchronization error on an egress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-FH_ILOSY_ALM: Ingress FC/ESCON Loss of Sync; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a Fibre Channel or ESCON loss of synchronization error on an ingress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-GE_ECETX_ALM: Egress GE Line Code Err count; Slot [dec] Subcard [dec]Port [dec]`

Explanation A transponder line card Gigabit Ethernet line code error count exceeds the maximum setting on an egress connection.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-GE_ELOSY_ALM: Egress GE Loss of Sync; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a Gigabit Ethernet loss of synchronization error on an egress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-GE_ILOSY_ALM: Ingress GE Loss of Sync; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a Gigabit Ethernet loss of synchronization error on an ingress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-GE_LOSY_ALM : GE Loss of Sync; Slot [dec] Subcard [dec] Port [dec]`

Explanation The performance monitor on a transponder line card reports loss of synchronization.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-GH_ICETX_ALM: Ingress GE Line Code Err; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card Gigabit Ethernet line code error count exceeds the corresponding threshold setting on an ingress connection.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-ICDRLK_ALM : Ingress CDR Locking error; Slot [dec] Subcard [dec] Port [dec]`

Explanation The performance monitor on a transponder line card reports a loss of lock.

Recommended Action Ensure that the proper encapsulation is configured. If the problem persists, check the connecting cable and laser power levels.

Error Message `%LCMDC-3-IDPROM_ACCESS_FAIL: Alarm: ASSERT, MINOR, TranspdrSC [dec]/[dec], Access to IDPROM  failed`

Explanation The online diagnostics cannot access IDPROM.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the wave interface and the transparent interface, remove and reinsert the transponder line card, power cycle the Cisco ONS 15530, and replace the transponder line card.

Error Message `%LCMDC-3-IOP_NOLG_ALM Ingress Loss of Light; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card or an OADM module generates a loss of light error on an ingress connection.

Recommended Action Check the connecting cable and laser power levels.

Error Message `%LCMDC-3-ISERPHERR_ALM Ingress Serdes Phase error; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a serializer-deserializer phase error on an ingress connection.

Recommended Action Check the connecting cable and laser power levels.

Error Message `%LCMDC-3-LINE_LASER_FAIL: Alarm: ASSERT, MAJOR, TranspdrSC [dec]/[dec], Line laser failure detected`

Explanation The functional image reports that a client side laser failed.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the wave interface and the transparent interface, remove and reinsert the transponder line card, power cycle the Cisco ONS 15530, and replace the transponder line card.

Error Message `%LCMDC-3-LN_OFC_IND: Line OFC IND; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates an open fiber control indication error.

Recommended Action Check the connecting cable and laser power levels.

Error Message `%LCMDC-3-LN_TX_ALM Line Laser Failure; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a client side laser error.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the wave interface and the transparent interface, remove and reinsert the transponder line card, power cycle the Cisco ONS 15530, and replace the transponder line card.

Error Message `%LCMDC-3-MDSUBCARD_IDPROM_FAIL: Alarm: ASSERT, MINOR, MuxDemuxSC [dec]/[dec], Access to IDPROM failed`

Explanation The online diagnostics cannot read the IDPROM from the OADM module.

Recommended Action Ensure that the OADM module is screwed in properly. If the problem persists, remove and reinsert the OADM module. If the problem still persists, replace the OADM module.

Error Message `%LCMDC-3-SH_BIP_ETX_ALM : SONET BIP Err count; Slot [dec] Subcard [dec] Port [dec]`

Explanation The monitoring functional image on a transponder line card reports bit interleave parity exceeds failure threshold.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-SH_EBIP_ALM: Egress SONET BIP Err count; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET bit interleave parity error on an egress connection.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-SH_ELOF_ALM: Egress SONET Loss of Frame; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET loss of frame error on an egress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-SH_ESEF_ALM: Egress SONET SEF; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET severely errored frame (SEF) error on an egress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-SH_IBIP_ALM: Ingress SONET BIP error; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET bit interleave parity error on an ingress connection.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-3-SH_ILOF_ALM: Ingress SONET Loss of Frame; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET loss of frame error on an ingress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-SH_ISEF_ALM: Ingress SONET SEF; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card generates a SONET severely errored frame (SEF) error on an ingress connection.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-SH_LOF_ALM : SONET Loss of Frame; Slot [dec] Subcard [dec] Port [dec]`

Explanation The monitoring functional image on a transponder line card reports a loss of frame; autofailover will be attempted to correct it.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-3-TK_TX_ALM Transmit Failure; Slot [dec] Subcard [dec] Port [dec]`

Explanation A transponder line card or an OADM module generates a transmit failure error.

Recommended Action Remove and reinsert the transponder line card. If the problem persists, replace the OADM module.

Error Message `%LCMDC-3-TRUNK_LASER_DEGRADE: Alarm: ASSERT, MAJOR, TranspdrSC [dec]/[dec], Trunk laser degrade detected`

Explanation The functional image in the transponder line card reports a trunk laser degrade monitor alarm or general transmit circuit fault.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the wave interface and the transparent interface, remove and reinsert the transponder line card, power cycle the Cisco ONS 15530, and replace the transponder line card.

Error Message `%LCMDC-3-TRUNK_LASER_DEVIATION: Alarm: ASSERT, MAJOR, TranspdrSC [dec]/[dec], Trunk laser lambda deviation`

Explanation The functional image in transponder line card reports trunk laser wavelength deviation alarm.

Recommended Action Perform the following actions in this order, until the problem clears: issue a **shutdown**/**no shutdown** command sequence on the wave interface and the transparent interface, remove and reinsert the transponder line card, power cycle the Cisco ONS 15530, and replace the transponder line card.

Error Message `%LCMDC-4-SH_BIP_ETX_ALM : SONET BIP Err count; Slot [dec] Subcard [dec] Port [dec]`

Explanation The monitoring functional image on a transponder line card reports bit interleave parity exceeds degrade threshold.

Recommended Action Check the optical fiber patch between the OADM modules or the cable on the client side.

Error Message `%LCMDC-4-SH_ESEF_ALM : Egress SONET SEF`

Explanation The monitoring functional image on a transponder line card reports severely errored frames.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-4-SH_LOF_ALM : SONET Loss of Frame; Slot [dec] Subcard [dec] Port [dec]`

Explanation The monitoring functional image on a transponder line card reports a loss of frame.

Recommended Action Check the network clocking and receive power level.

Error Message `%LCMDC-6-SH_ESEF_ALM : Egress SONET SEF`

Explanation The performance monitor on a transponder line card reports severely errored frames.

Recommended Action Check the network clocking and receive power level.

METOPT

Error Message `%METOPT-6-DI_CLEARED: CDL Defect Indication: [chars]`

Explanation The specified alarm has cleared on the specified interface.

Recommended Action Check the interface state and receive power level and the cross connect state of the trunk card.

Error Message `%METOPT-6-DI_ASSERTED: CDL Defect Indication: [chars]`

Explanation The specified alarm has been asserted on the specified interface.

Recommended Action Check the interface state and receive power level and the cross connect state of the trunk card.

Error Message `%METOPT-2-FABRIC_PORTFAIL: Port Fail event received from [ACTIVE/STANDBY] switch card on fabric port associated with interface [chars]`

Explanation The symbol errors cross the threshold limit in the connection path through the switch fabric.

Recommended Action Check the CPU switch module for a possible error indication. Remove and reinsert the failing CPU switch module. If the problem persists, remove and reinsert the trunk/client line cards. If the problem still persists, power cycle the shelf.

METOPT_DRV

Error Message `%METOPT_DRV-3-REPROGRAM_ERROR`

Explanation Reprogramming of the functional image fails and does not identify the nature of the problem.

Recommended Action Reprogram the card. If the problem persists, remove and reinsert the card. If the problem still persists, save the console log and contact Cisco technical support.

Error Message `%METOPT_DRV-3-TP_INTERNAL_ERROR: [chars]`

Explanation The transponder line card driver subsystem encountered an internal software error.

Recommended Action Ensure that the card has not been removed and that the interface exists in the system.

MRC

Error Message `%MRC-3-MRC_RDWRFAIL:Read/write failed`

Explanation A read/write error occurred when accessing the 8-port multi-service muxponder.

Recommended Action Remove and reinsert the 8-port multi-service muxponder. If the problem persists, replace the 8-port multi-service muxponder and report it to Cisco customer support.

Error Message `%MRC-3-MRC_MAGICFAIL:Magic number read failed`

Explanation The functional image has reset on an 8-port multi-service muxponder.

Recommended Action Remove and reinsert the 8-port multi-service muxponder. If the problem persists, replace the 8-port multi-service muxponder and report it to Cisco customer support.

Error Message `%MRC-3-MIB_HW_LASER_DOWN_ALM:Laser Disabled`

Explanation A client laser is disabled on the multirate interfaces on an 8-port multi-service muxponder.

Recommended Action Check the client receive cable and the SFP on the 8-port multi-service muxponder.

Error Message `%MRC-3-MIB_LOSS_OF_LIGHT_ALM:Transceiver Loss of Light`

Explanation A client-side Loss of Light occurred on the multirate interface of the 8-port multi-service muxponder.

Recommended Action Check the client receive cable and the SFP.

Error Message `%MRC-3-MIB_LOSS_OF_LOCK_ALM:Loss of Lock`

Explanation A Loss of Lock occurred on either the multirate interface or the wavesonetphy interface of the 8-port multi-service muxponder.

Recommended Action Check the connecting cable and the laser receive power levels.

Error Message `%MRC-3-MIB_LOSS_OF_SYNC_ALM:Loss of Sync`

Explanation A Loss of Sync occurred on the multirate interface of the 8-port multi-service muxponder.

Recommended Action Check the client receive cable and the SFP.

Error Message `%MRC-3-MIB_T1E1_AIS_ALM:AIS Error`

Explanation A receive alarm indication signal from either the client side or the trunk side is detected on the T1/E1 multirate interface of the 8-port multi-service muxponder.

Recommended Action Check the client receive cables and the remote client and trunk connections.

Error Message `%MRC-3-MIB_FP_LOSY_ALM:FP Loss of Sync`

Explanation A framing protocol Loss of Sync occurred on the multirate interface on the 8-port multi-service muxponder.

Recommended Action Check the trunk cables and the remote client encapsulation. Issue the **show tsi** command and check for a time slot interchange (TSI) or synchronous transport signal (STS) mismatch.

Error Message `%MRC-3-MIB_FP_MGMT_FRAME_RCVD_ALM:FP Mgmt Fr Received`

Explanation An FP management frame indicating a remote client Loss of Light or Loss of Sync has been received.

Recommended Action Check the remote client receive cables and verify that the remote client port is not administratively shut down.

Error Message `%MRC-3-MIB_LOSS_OF_FRAME_ALM:Loss of Frame`

Explanation A Loss of Frame occurred on a wavesonetphy interface of the 8-port multi-service muxponder.

Recommended Action Check the optical power levels, and then look for bent or broken cables and dirty connectors on the trunk side.

Error Message `%MRC-3-MIB_SEF_ALM:SEF`

Explanation A severely errored frame was detected on a wavesonetphy interface of the 8-port multi-service muxponder.

Recommended Action Check the power level for out of range conditions. Also check for dirty cables or connectors and clean them if necessary. Adjust attenuation as necessary.

Error Message `%MRC-3-MIB_BIP1_THRESHOLD_ALM:BIP Threshold`

Explanation A bit interleave parity (BIP) threshold was exceeded or a cleared error was detected on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Check the optical fiber patches between the mux/demux modules and the cable on the trunk side. Check the power level for too high or too low conditions, and look for bent or broken cables. Also check for dirty connectors and clean them if necessary. Adjust the attenuation if necessary.

Error Message `%MRC-3-MIB_AFOV_PRE_ALARM:Pre Alarm`

Explanation A hardware assisted switchover occurred and a prealarm was generated on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action This is an indication that an APS switchover has occurred.

Error Message `%MRC-3-MIB_LASER_DEG_ALM:Laser Degradation Alarm`

Explanation A trunk laser degradation alarm occurred on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Issue a **shutdown**/**no shutdown** command sequence on the wavesonetphy interface.
2. Issue a **laser shutdown**/**no laser shutdown** command sequence on the wavesonetphy interface.
3. Remove and reinsert the 8-port multi-service muxponder.
4. Power cycle the Cisco ONS 15530.
5. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-MIB_LASER_WV_DEV_ALM:Laser Wavelength Deviation Alarm`

Explanation A trunk laser wavelength deviation alarm occurs on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Issue a **shutdown**/**no shutdown** command sequence on the wavesonetphy interface.
2. Issue a **laser shutdown**/**no laser shutdown** command sequence on the wavesonetphy interface.
3. Remove and reinsert the 8-port multi-service muxponder.
4. Power cycle the Cisco ONS 15530.

5. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-MIB_AUTO_LASER_SHUTDOWN:Auto Laser Shutdown`

Explanation An automatic laser shutdown alarm occurs on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Check the connecting cable and received optical power levels.

Error Message `%MRC-3-ACCESS_FAIL:Access Fail`

Explanation The read/write to the LRC scratch pad register fails on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Remove and reinsert the 8-port multi-service muxponder.
2. Power cycle the Cisco ONS 15530.
3. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-IDPROM_ACCESS_FAIL:Idprom Access Fail`

Explanation Reading and checking the IDPROM fails on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Remove and reinsert the 8-port multi-service muxponder.
2. Power cycle the Cisco ONS 15530.
3. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-FPGA_ACCESS_FAIL:FPGA Access Failed:`

Explanation Access to the functional image (FPGA 0 or 1) failed on an 8-port multi-service muxponder.

Recommended Action Remove and reinsert the 8-port multi-service muxponder. If the problem persists, replace the 8-port multi-service muxponder and report it to Cisco customer support.

Error Message `%MRC-3-INT_LPBK_FAIL:Internal CardLoopback Failed:`

Explanation An internal loopback failed on an 8-port multi-service muxponder.

Recommended Action Remove and reinsert the 8-port multi-service muxponder. If the problem persists, replace the 8-port multi-service muxponder and report it to Cisco customer support.

Error Message `%MRC-3-ETH_DCC_LPBK_FAIL:SDCC loopback Fail`

Explanation A loopback through the Ethernet backplane fails on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Remove and reinsert the 8-port multi-service muxponder.
2. Power cycle the Cisco ONS 15530.
3. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-LPBK_THRU_PSC_FAIL:loopback through PSC Fail`

Explanation An internal card loopback through PSC fails on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Remove and reinsert the 8-port multi-service muxponder.
2. Power cycle the Cisco ONS 15530.
3. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-MIB_SFP_VENDOR_UNKNOWN:Unknown Vendor SFP inserted`

Explanation The SFP is not Cisco certified on an 8-port multi-service muxponder.

Recommended Action Replace with a Cisco certified SFP.

Error Message `%MRC-3-MIB_TSI_ENCAP_MISMATCH:Local/Peer encap mismatch`

Explanation A client side local and remote encapsulation are different on the multirate interface on an 8-port multi-service muxponder.

Recommended Action Check the local and remote encapsulation. If necessary, shut down the port and reconfigure the encapsulation on the local multirate interface.

Error Message `%MRC-3-LOSS_OF_LIGHT_ALM:Transceiver Loss of Light`

Explanation A client-side Loss of Light occurred on the multirate interface of the 8-port multi-service muxponder.

Recommended Action Check the client receive cable and the SFP.

Error Message `%MRC-3-LOSS_OF_LOCK_ALM:Loss of Lock`

Explanation A Loss of Lock occurred on either the multirate interface or the wavesonetphy interface of an 8-port multi-service muxponder

Recommended Action Check the connecting cable and the laser receive power levels.

Error Message `%MRC-3-LOSS_OF_SYNC_ALM:Loss of Sync`

Explanation A Loss of Sync occurred on the multirate interface of the 8-port multi-service muxponder.

Recommended Action Check the client receive cable and the SFP.

Error Message `%MRC-3-T1E1_AIS_ALM:AIS Error`

Explanation A receive (Rx) alarm indication signal (AIS) from either the client-side or the trunk-side was detected on a multirate interface encapsulated for T1 or E1 on an 8-port multi-service muxponder.

Recommended Action Check the client receive cables and the remote client and trunk connections.

Error Message `%MRC-3-FP_LOSY_ALM:FP Loss of Sync`

Explanation A Loss of Sync occurred on an 8-port multi-service muxponder.

Recommended Action Check the trunk cables and the remote client encapsulation. Issue the **show tsi** command and check for a time slot interchange (TSI) or synchronous transport signal (STS) mismatch.

Error Message `%MRC-3-FP_MGMT_FRAME_RCVD_ALM:FP LoSignal`

Explanation An FP management frame indicating a remote client Loss of Light or Loss of Sync **h**as been received.

Recommended Action Check the remote client receive cables and verify that the remote client port is not administratively shut down.

Error Message `%MRC-3-LOSS_OF_FRAME_ALM:Loss of Frame`

Explanation A Loss of Frame occurred on a wavesonetphy interface of an 8-port multi-service muxponder.

Recommended Action Check the optical power levels, and then look for bent or broken cables and dirty connectors on the trunk side. Adjust attenuation if necessary.

Error Message `%MRC-3-SEF_ALM:SEF`

Explanation A severely errored frame was detected on a wavesonetphy interface of the 8-port multi-service muxponder.

Recommended Action Check the optical power levels, and then look for bent or broken cables and dirty connectors on the trunk side. Adjust attenuation if necessary.

Error Message `%MRC-3-BIP1_THRESHOLD_ALM:BIP Threshold`

Explanation A bit interleave parity (BIP) threshold was exceeded or a cleared error was detected on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Check the optical fiber patches between the mux/demux modules and the cable on the trunk side. Check the optical power levels, and then look for bent or broken cables and dirty connectors on the trunk side. Adjust attenuation if necessary.

Error Message `%MRC-3-MIB_AFOV_PRE_ALARM:Pre Alarm`

Explanation A hardware assisted switchover occurred, and a prealarm was generated on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action This is an indication that an APS switchover has occurred.

Error Message `%MRC-3-LASER_DEG_ALM:Laser Degradation Alarm`

Explanation A trunk laser degradation alarm occurs on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Issue a **shutdown**/**no shutdown** command sequence on the wavesonetphy interface.
2. Issue a **laser shutdown**/**no laser shutdown** command sequence on the wavesonetphy interface.
3. Remove and reinsert the 8-port multi-service muxponder.
4. Power cycle the Cisco ONS 15530.
5. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-LASER_WV_DEV_ALM:Laser Wavelength Deviation Alarm`

Explanation A trunk laser wavelength deviation alarm occurred on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Perform these actions in the following order until the problem clears.

1. Issue a **shutdown**/**no shutdown** command sequence on the wavesonetphy interface.
2. Issue a **laser shutdown**/**no laser shutdown** command sequence on the wavesonetphy interface.
3. Remove and reinsert the 8-port multi-service muxponder.
4. Power cycle the Cisco ONS 15530.
5. If the problem persists, replace the 8-port multi-service muxponder.

Error Message `%MRC-3-AUTO_LASER_SHUTDOWN:Auto Laser Shutdown`

Explanation An automatic laser shutdown alarm occurred on the wavesonetphy interface on an 8-port multi-service muxponder.

Recommended Action Check the connecting cable and received optical power levels.

Error Message `%MRC-3-SFP_VENDOR_UNKNOWN:Unknown Vendor SFP inserted`

Explanation The SFP is not Cisco certified on an 8-port multi-service muxponder.

Recommended Action Replace with a Cisco certified SFP.

Error Message `%MRC-3-TSI_ENCAP_MISMATCH:Local/Peer encap mismatch`

Explanation The client-side local and remote encapsulations are different on the multirate interface on an 8-port multi-service muxponder.

Recommended Action Check the local and remote encapsulations. If necessary, shut down the port and reconfigure the encapsulation on the local multirate interface.

ODM

Error Message `%ODM-3-LC_TEST_FAIL: Slot [dec] [chars] Failed`

Explanation The online diagnostic test fails for the line card.

Recommended Action Check the line card seating and LEDs. Remove and reinsert the line card. If there is no change, then replace the line card.

Error Message `%ODM-3-SC_TEST_FAIL: Slot [dec], Subcard [dec], [chars] Failed`

Explanation The online diagnostic test fails for the subcard.

Recommended Action Check the line card seating and LEDs. If the problem persists, remove and reinsert the motherboard. If the problem still persists, replace the line card.

Error Message `%ODM-3-CPU_TEST_FAIL: CPU card, %s Failed`

Explanation The online diagnostic test fails for this CPU switch module.

Recommended Action Power cycle the Cisco ONS 15530. If the problem persists, remove and reinsert the CPU switch module. If the problem still persists, then replace the CPU switch module.

Error Message `%ODM-3-DIAG_DISABLE: Online Diags disabled for all slots without specific config`

Explanation The online diagnostic tests were disabled for all slots except those with specific configurations.

Recommended Action This message is informational only.

Error Message `%ODM-3-DIAG_ENABLE: Online Diags enabled for all slots without specific config`

Explanation The online diagnostic tests were enabled for all slots except those with specific configurations.

Recommended Action This message is informational only.

Error Message `%ODM-3-PEER_INCOMPATIBLE: Online Diags Peer Version is different`

Explanation The version of the peer online diagnostics manager is different.

Recommended Action This message is informational only.

OIR

Error Message `%OIR-3-BADFPGAIMG: Controller in in slot [dec] does not have a valid FPGA image`

Explanation A card is inserted for OIR but it cannot to verify the Flash image as being valid.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the card or module (wait at least 60 seconds before reinserting), power cycle the Cisco ONS 15530, copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%OIR-3-BADIDPROM: IDPROM in slot [dec] not properly programmed`

Explanation When the line card is inserted and the IDPROM on the line card is not accessible.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the card or module (wait at least 60 seconds before reinserting), power cycle the Cisco ONS 15530, copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%OIR-3-LINE_CARD_NOT_READY: Line card in slot [dec] not becoming ready after OIR`

Explanation The module inserted in the slot (given in the message) is not becoming ready for access. This can apply to OADM modules or any other module inserted in a specific slot.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the card or module (wait at least 60 seconds before reinserting), power cycle the Cisco ONS 15530, copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%OIR-3-RF_REGISTRTN_FAILED: OIR Client failed to register with RF`

Explanation The OIR process failed to register with the RF (redundancy framework) and redundancy might not be available.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the card or module (wait at least 60 seconds before reinserting), power cycle the Cisco ONS 15530, copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%OIR-3-SUBCARD_SCAN_ERR: Error in scanning subcards in slot [dec]`

Explanation The module inserted in the slot (given in the message) is not becoming ready for access. This can apply to OADM modules or any other module inserted in a specific slot.

Recommended Action Perform the following actions in this order, until the problem clears: remove and reinsert the card or module (wait at least 60 seconds before reinserting), power cycle the Cisco ONS 15530, copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%OIR-3-SUBCARD_DISC: Slot [dec]:[LC [dec]] subcards discovery`

Explanation A subcard is discovered.

Recommended Action Check to see if a subcard has been inserted.

Error Message `%OIR-3-SUBCARDDETECT: Slot [dec]:[LC [dec]] subcards detected`

Explanation A subcard is detected.

Recommended Action Check to see if a subcard has been inserted.

Error Message `%OIR-3-SUBCARD_DEACT: Slot [dec]:[LC [dec]] subcards deactivated`

Explanation A subcard is deactivated.

Recommended Action Check to see if a subcard has been removed from the system.

Error Message `%OIR-3-SUBCARDREMOVE: Slot [dec] LC [dec]:subcard [dec] removed`

Explanation A subcard is removed.

Recommended Action Check to see if a subcard has been removed from the system.

Error Message `%OIR-3-DETECT:Detected [interface name] in slot [dec]`

Explanation A line card is inserted.

Recommended Action Check to see if a linecard has been inserted.

Error Message `%OIR-3-REMOVE:Removed [interface name] in slot [dec]`

Explanation A line card is removed.

Recommended Action Check to see if a linecard has been removed from the system.

Error Message `%OIR-3-PSM_SUBCARDDETECT:Slot [dec] [chars] [dec]:subcard [dec] inserted`

Explanation A PSM subcard is detected.

Recommended Action Check to see if a PSM subcard has been inserted.

Error Message `%OIR-3-PSM_SUBCARDREMOVE:Slot [dec] [chars] [dec]:subcard [dec] removed`

Explanation A PSM subcard is removed.

Recommended Action Check to see if a PSM subcard has been removed from the system.

Error Message `%OIR-3-XCVRDETECT:Slot [dec] Subcard [dec] port [dec]:line transceiver`

Explanation A transceiver is detected.

Recommended Action Check to see if a transceiver has been inserted.

Error Message `%OIR-3-XCVRREMOVE:Slot [dec] Subcard [dec] port [dec]:line transceiver`

Explanation A transceiver is removed.

Recommended Action Check to see if a transceiver has been removed from the system.

ONS15530

Error Message `%ONS15530-2-NOMEMORY: No memory available for Notification Process`

Explanation There is no memory to create the notification process, which handles port alarms and port fail interrupts. This is a very critical error.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-2-NOMEMORY: No memory available for OIR process`

Explanation There was no memory to create the remove and reinsert process. Online insertion and removal will not work without this process.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-2-NOMEMORY: No memory available for SRC Standby To Active Process`

Explanation There is no memory to create the SRC standby to active process, which handles SRC driver actions during a switchover. The box cannot function correctly without this process.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-2-PORTFAIL: Port Fail event received Slot [dec] Subcard [dec] Port [dec]; HWIDB, [chars]`

Explanation A port fails.

Recommended Action Check the trunk and client side connections.

Error Message `%ONS15530-2-ZEROLEN_MSG: Zero length while writing to linecard. Datalen [dec]`

Explanation A zero length message is received while writing to a module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-3-IDPROM_MISMATCH: Mismatch in backplane IDPROM, [chars]: Active-side=[chars], Sby-side=[chars]`

Explanation The backplane contains two IDPROMs that should be programmed with identical values for most fields, but mismatch on the current backplane.

Recommended Action Report the error message text to Cisco technical support.

Error Message `%ONS15530-3-IDPROM_MISMATCH: Mismatch in backplane IDPROM, lengths: Active-side=[dec], Sby-side=[dec]`

Explanation A hardware version mismatch occurs on the backplane IDPROM.

Recommended Action Confirm the compatibility of the processor hardware and image versions.

Error Message `%ONS15530-3-IDPROM_STR_MISMATCH: Mismatch in backplane IDPROM, [chars], Active-side=[chars] Sby-side=[chars]`

Explanation An IDPROM string mismatch occurs on the backplane IDPROM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-3-IDPROM_STR_MISMATCH: Mismatch in backplane IDPROM, initialization, Active-side=[chars/chars] Sby-side=[chars/chars]`

Explanation An IDPROM string mismatch occurs during initialization on the backplane IDPROM.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

Error Message `%ONS15530-3-UNEXP_INTR: [chars]`

Explanation This problem should be self-correcting but indicates either a hardware or a software defect. If it is a hardware defect, further problems can be expected. If it is a software problem, certain types of error and alarm conditions might be left undetected.

Recommended Action Copy the error message exactly as it appears, and report it to Cisco technical support.

Error Message `%ONS15530-6-AUTOFAILOVER: Failover Event received Slot [dec] Subcard [dec] Port [dec]`

Explanation One of the branches of the splitter failed to receive light so the hardware switched over to the other branch.

Recommended Action Check the trunk side connections for kinks or a fiber cut.

OPTICAL_CFG_SYNC

Error Message `%OPTICAL_CFG_SYNC-3-NO_BUFFER: No memory to sync`

Explanation A transmit error occurred because the buffer was unavailable while sending a message to the standby CPU switch module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%OPTICAL_CFG_SYNC-3-TRANSMIT_ERROR: Unable to transmit message type`

Explanation A transmit error occurred while sending a message to the standby CPU switch module.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%OPTICAL_CFG_SYNC-3-SUBSYS_COMPAT: Standby CPU switch module does not preserve optical configuration on switchoner`

Explanation The standby CPU switch module is missing the optical configuration sync subsystem and will not preserve the optical configuration on switchover.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

OPTICAL_IF

Error Message `%OPTICAL_IF-1-ALARM : Transparent[dec]/[dec]/[dec], [chars]: Signal degrade threshold cleared`

Explanation A specific threshold degrade alarm for a transparent interface has been cleared.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Transparent[dec]/[dec]/[dec], [chars]: Signal degrade threshold exceeded`

Explanation A specific threshold degrade alarm for a transparent interface has been exceeded.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Transparent[dec]/[dec]/[dec], [chars]: Signal failure threshold cleared`

Explanation A specific threshold failure alarm for a transparent interface has been cleared.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Transparent[dec]/[dec]/[dec], [chars]: Signal failure threshold exceeded`

Explanation A specific threshold failure alarm for a transparent interface has been exceeded.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Wave[dec]/[dec], [chars]: Signal degrade threshold cleared`

Explanation A specific threshold degrade alarm for a wave interface has been cleared.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Wave[dec]/[dec], [chars]: Signal degrade threshold exceeded`

Explanation A specific threshold degrade alarm for a wave interface has been exceeded.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Wave[dec]/[dec], [chars]: Signal failure threshold cleared`

Explanation A specific threshold failure alarm for a wave interface has been cleared.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-ALARM : Wave[dec]/[dec], [chars]: Signal failure threshold exceeded`

Explanation A specific threshold failure alarm for a wave interface has been exceeded.

Recommended Action Check the source of the alarm.

Error Message `%OPTICAL_IF-1-INTERNAL_ERROR : [chars]`

Explanation The metopt subsystem encounters an internal software error. Use the error message text to identify the problem.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

OPTICAL_IF_ALARMS

Error Message `%OPTICAL_IF_ALARMS-3-LOW_WARN_THR : Low Warning Threshold for Receive Power (in dBm) on port WavepatchX/0/0 exceeded`

Explanation The low warning threshold is exceeded for the wavepatch interface.

Recommended Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured low warning threshold value.

Error Message `%OPTICAL_IF_ALARMS-3-LOW_ALM_THR : Low Alarm Threshold for Receive Power (in dBm) on port WavepatchX/0/0 exceeded`

Explanation The low alarm threshold is exceeded for the wavepatch interface.

Recommended Action Check for receive power on the wavepatch interface. Make sure the receive power is above the configured low alarm threshold value.

Error Message `%OPTICAL_IF_ALARMS-3-HIGH_WARN_THR : High Warning Threshold for Receive Power (in dBm) on port WavepatchX/0/0 exceeded`

Explanation The high warning threshold is exceeded for the wavepatch interface.

Recommended Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured high warning threshold value.

Error Message `%OPTICAL_IF_ALARMS-3-HIGH_ALM_THR : High Alarm Threshold for Receive Power (in dBm) on port WavepatchX/0/0 exceeded`

Explanation The high alarm threshold is exceeded for the wavepatch interface.

Recommended Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured high alarm threshold value.

OSCP

Error Message `%OSCP-3-INTERNAL_ERROR: Cannot add Optical interface [dec]`

Explanation A processor cannot add a specific optical interface number.

Recommended Action Check the status or configuration of the specific optical interface.

Error Message `%OSCP-3-INTERNAL_ERROR: Cannot add OSCP interface [dec]/[dec]`

Explanation The processor cannot add the OSC interface wave.

Recommended Action Check the status or the configuration of the OSC interface.

Error Message `%OSCP-3-INTERNAL_ERROR: group id out of bounds [chars]`

Explanation A group ID is configured out of bounds of the group.

Recommended Action Check the configuration of the OSCP neighbor node IP address and peer group name.

Error Message `%OSCP-3-INTERNAL_ERROR: Hello state machine error in state [chars], event [chars] port [dec]`

Explanation The OSCP receives a Hello state error.

Recommended Action Check the status of the transmitting node.

Error Message `%OSCP-3-INTERNAL_ERROR: OSCP failed to get the argument to oscp_hello process, pid = [dec]`

Explanation The OSCP fails to get an argument for the OSCP Hello process and displays its process identifier (PID).

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

Error Message `%OSCP-3-INTERNAL_ERROR: OSCP failed to set the argument to oscp hello process, pid = [dec]`

Explanation The OSCP fails to set an argument to the OSCP Hello process and displays the PID group messages.

Recommended Action Check the OSCP configuration of the Hello interval and hold-down timers.

Error Message `%OSCP-3-INTERNAL_ERROR: Received API message to create an interface for an existing port [dec]`

Explanation An application programmable interface (API) tries to create an interface where one already exists.

Recommended Action Check the configuration and status of the NMS application and the interface being configured.

Error Message `%OSCP-3-INTERNAL_ERROR: Received unrecognized API message [chars]`

Explanation An unrecognized API message is received.

Recommended Action Check the configuration of the NMS applications and the connecting interface.

Error Message `%OSCP-4-BADPACKET: Invalid pkt: length shorter than header size Dec.`

Explanation An invalid packet is received from a network peer.

Recommended Action Check the originating device for a cause of the corrupted packets.

PATCH

Error Message `%PATCH-3-CHANNEL_MISMATCH:Channel mismatch between WavepatchX/0/0 and Filter0/0/Y`

Explanation The patch configured between a wavepatch and filter interface has different wavelengths.

Recommended Action Configure the patch between the wavepatch and the filter interface having the same wavelength.

PERF_HISTORY

Error Message `%PERF_HISTORY-3-UNEXPECTED: Unexpected counter value on [interface name]`

Explanation The performance history counters for the specified interface have unexpected values.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Research and attempt to resolve the error using the output interpreter and perform a search of the bug tool kit. If you still require assistance, open a case with the Cisco Technical Assistance Center (TAC), or contact your Cisco technical support representative and provide the representative with the gathered information.

Error Message `%PERF_HISTORY-5-RESET: Performance history counters reset on [Interface name]`

Explanation The performance history counters for the specified interface have been cleared and reset. This message is displayed after you execute the **clear performance history** command.

Recommended Action This message is informational only.

RF

Error Message `%RF-1-SYSTEM_INTEGRITY: Automatic switch of activity occurred while the CPUs were in maintenance mode`

Explanation An automatic switch of activity occurs when the processor is disabled.

Recommended Action Check the status of the active and standby processors and the configuration of the disabling application.

Error Message `%RF-3-COMMUNICATION: Communication with the peer CPU has been established`

Explanation An informational message when communication is first established.

Recommended Action This message is informational only.

Error Message `%RF-3-COMMUNICATION: Communication with the peer CPU has been lost`

Explanation The interprocessor communication has been lost to the peer CPU switch module. This could indicate that the processor is not currently fully operational, or that there is a hardware problem in one of the processors.

Recommended Action Check the status of the peer processor card. Check that both CPU switch modules are firmly seated in the chassis.

Error Message `%RF-3-IPC_PORT: Unable to create [chars] [chars]`

Explanation The processor card cannot create a configuration for an interface.

Recommended Action Check for sufficient CPU switch module memory.

Error Message `%RF-3-IPC_PORT: Unable to open [chars] [chars]`

Explanation The processor cannot open an interface.

Recommended Action Check for sufficient CPU switch module memory.

Error Message `%RF-3-IPC_PORT: Unable to register [chars] [chars]`

Explanation The processor cannot register the configuration for an interface.

Recommended Action Check for sufficient CPU switch module memory.

Error Message `%RF-3-SIMPLEX_MODE: The peer CPU has been lost`

Explanation The absence of the peer processor has been detected.

Recommended Action Check the status of the standby processor. It could have failed.

Error Message `%RF-3-STANDBY_RELOAD: The standby CPU is being reset because [chars] took too long processing a progression event`

Explanation The peer processor was reset. This allows recovery from an indeterminate standby state.

Recommended Action Confirm that interprocessor communications (IPC) is working correctly.

Error Message `%RF-3-STANDBY_RELOAD: The standby CPU is being reset because keepalive message(s) not received from peer CPU'`

Explanation The standby processor is reset because keepalive messages are not received from the active processor.

Recommended Action Check the status of the active processor and the communication between the active and standby processors.

Error Message `%RF-3-STANDBY_RELOAD: The standby CPU is being reset because the peer CPU failed during progression`

Explanation The standby CPU switch module reset because the peer CPU switch module failed. This allows recovery from an indeterminate standby state.

Recommended Action Confirm that interprocessor communications (IPC) is up.

Error Message `%RF-3-SYSTEM_INTEGRITY: Automatic switch of activity occurred while an application had disabled it`

Explanation An automatic switch of activity occurred when redundancy synchronization is disabled.

Recommended Action Contact Cisco TAC with **show tech**, **show logging**, and **show hardware detail** command outputs.

SFP_SECURITY

Error Message `%SFP_SECURITY-4-UNRECOGNIZED_VENDOR: SFP interface`

Explanation The SFP was identified as a Cisco SFP, but the system was unable to match its manufacturer with one on the known list of Cisco SFP vendors.

Recommended Action Check the list of supported SFPs for this version of the system software. An upgrade may be required for newer SFPs.

Error Message `%SFP_SECURITY-4-VN_DATA_CRC_ERROR: SFP interface`

Explanation The SFP was identified as a Cisco SFP, but it does not have valid CRC in the IDPROM data.

Recommended Action Check the list of supported SFPs for this version of the system software. An upgrade may be required for newer SFPs. Even if unrecognized, the SFP may still operate properly, perhaps with limited functionality.

Error Message `%SFP_SECURITY-4-ID_MISMATCH: Identification check failed for SFP interface`

Explanation The SFP was identified as a Cisco SFP, but the system was unable to verify its identity.

Recommended Action Check the list of supported SFPs for this version of the system software. An upgrade may be required for newer SFPs. Otherwise, verify that the SFP was obtained from Cisco or a supported vendor.

Error Message `%SFP_SECURITY-4-DUPLICATE_SN: SFP interface`

Explanation The SFP was identified as a Cisco SFP, but its serial number matches that of another interface on the system.

Recommended Action Cisco SFPs are assigned unique serial numbers. Verify that the SFP was obtained from Cisco or a supported vendor.

Error Message `%SFP_SECURITY-4-SFP_INTERR: Internal error occurred in setup for SFP interface`

Explanation The system could not allocate resources, or had some other problem, in the setup for the specified SFP interface.

Recommended Action Reload the system. If the problem persists, contact TAC.

SRC

Error Message `%SRC-3-LC_REG_READ_FAIL: Register read failed for slot [dec], addr [hex], with failcode as [hex]`

Explanation The SRC is unable to read the line card register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_REG_WRITE_FAIL: Register write failed for slot [dec], addr [hex], with failcode as [hex]`

Explanation The SRC is unable to write to the line card register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_CMI_INTF_FAULT: SRC detected a CMI interface fault for line card in slot [dec]`

Explanation The SRC detected a CMI interface fault.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_APS_INTF_FAULT: SRC detected a APS interface fault for line card in slot [dec]`

Explanation The SRC detected an APS interface fault.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_APS_INTF_INIT_FAULT: SRC-LRC APS interface could not be initialized for line card in slot [dec]`

Explanation The SRC is unable to read the line card register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_APS_TIMEOUT: SRC detected keep alive timeout on APS intferace for slot [dec]`

Explanation The SRC is unable to read the line card register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-LC_CMI_TIMEOUT: SRC detected keep alive timeout on CMI intferace for slot [dec]`

Explanation The SRC is unable to read the line card register.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

Error Message `%SRC-3-AFOVEN_ERROR: Attempt to enable [chars] protection autofailover on interface [chars] when port status is [hex]`

Explanation Software attempt to enable autofailover port status is not good.

Recommended Action Copy the error message exactly as it appears on the console or in the system log, call your Cisco technical support representative, and provide the representative with the gathered information.

SYS

Error Message `%SYS-4-CONFIG_NEWER: Configuration may not be understood`

Explanation The saved configuration was written by a newer version of system software. The active system software might not be able to implement some commands saved in memory.

Recommended Action Upgrade the active software image.

VOA

Error Message `%VOA-3-LOW_ALM_THR: Low Alarm Threshold for optical power on port`

Explanation Low alarm threshold was exceeded for optical power level.

Recommended Action Check the network cable for drop in received optical power.

Error Message `%VOA-3-LOW_WARN_THR: Low Warning Threshold for optical power on port`

Explanation Low warning threshold was exceeded for optical power level.

Recommended Action Check the network cable for drop in received optical power.

Error Message `%VOA-3-HIGH_ALM_THR: High Alarm Threshold for optical power on port`

Explanation High alarm threshold was exceeded for optical power level.

Recommended Action Check the network cable for increase in optical power.

Error Message `%VOA-3-HIGH_WARN_THR: High Warning Threshold for optical power on port`

Explanation High warning threshold was exceeded for optical power level.

Recommended Action Check the network cable for increase in optical power.

Related Documentation

Use this Cisco ONS 15530 System Alarms and Error Messages in conjunction with the following referenced publications:

- *Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series*

  Provides the regulatory compliance and safety information for the Cisco ONS 15500 Series.

- *Cisco ONS 15530 Planning Guide*

  Provides detailed information on the Cisco ONS 15530 architecture and functionality.

- *Cisco ONS 15530 Hardware Installation Guide*

  Provides detailed information about installing the Cisco ONS 15540 ESP.

- *Cisco ONS 15530 Optical Transport Turn-Up and Test Guide*

  Provides acceptance testing procedures for Cisco ONS 15540 ESP nodes and networks.

- *Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections*

  Provides processes and procedures for cleaning the fiber optic connectors and component interfaces of the Cisco ONS 15540 ESP.

- *Cisco ONS 15530 Command Reference*

  Provides commands to configure and manage the Cisco ONS 15540 ESP.

- *Cisco ONS 15530 Configuration Guide*

  Describes configure and manage the Cisco ONS 15540 ESP.

- *Cisco ONS 15530 Troubleshooting Guide*

  Describes how to identify and resolve problems with the Cisco ONS 15540 ESP.

- *Network Management for the Cisco ONS 15530*

  Provides information on the network management systems that support the Cisco ONS 15540 ESP.

- *Cisco ONS 15530 TL1 Commands*

  Provides a full TL1 command and autonomous message set including parameters, AIDs, conditions and modifiers for the Cisco ONS 15540 ESP.

- *MIB Quick Reference for the Cisco ONS 15500 Series*

  Describes the Management Information Base (MIB) objects and explains how to access Cisco public MIBs for the Cisco ONS 15500 Series.

- *Cisco ONS 15530 Software Upgrade Guide*

  Describes how to upgrade system images and functional images on the Cisco ONS 15540 ESP.

- *Introduction to DWDM Technology*

  Provides background information on the dense wavelength division multiplexing (DWDM) technology.

- *Cisco IOS Configuration Fundamentals Configuration Guide*

  Provides useful information on the CLI (command-line interface) and basic shelf management.

Document Conventions

This publication uses the following conventions:

Convention	Application
boldface	Commands and keywords in body text.
italic	Command input that is supplied by the user.
[ ]	Keywords or arguments that appear within square brackets are optional.
{ x | x | x }	A choice of keywords (represented by x) appears in braces separated by vertical bars. The user must select one.
Ctrl	The control key. For example, where Ctrl + D is written, hold down the Control key while pressing the D key.
`screen font`	Examples of information displayed on the screen.
`boldface screen font`	Examples of information that the user must enter.
< >	Command parameters that must be replaced by module-specific codes.

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the document.

Caution Means *reader be careful*. In this situation, the user might do something that could result in equipment damage or loss of data.

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

Where to Find Safety and Warning Information

For safety and warning information, refer to the *Cisco Optical Transport Products Safety and Compliance Information* document that accompanied the product. This publication describes the international agency compliance and safety information for the Cisco ONS 15xxx systems. It also includes translations of the safety warnings that appear in the ONS 15xxx system documentation.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/techsupport

You can access the Cisco website at this URL:

http://www.cisco.com

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Product Documentation DVD

The Product Documentation DVD is a comprehensive library of technical product documentation on a portable medium. The DVD enables you to access multiple versions of installation, configuration, and command guides for Cisco hardware and software products. With the DVD, you have access to the same HTML documentation that is found on the Cisco website without being connected to the Internet. Certain products also have .PDF versions of the documentation available.

The Product Documentation DVD is available as a single unit or as a subscription. Registered Cisco.com users (Cisco direct customers) can order a Product Documentation DVD (product number DOC-DOCDVD= or DOC-DOCDVD=SUB) from Cisco Marketplace at this URL:

http://www.cisco.com/go/marketplace/

Cisco Optical Networking Product Documentation CD-ROM

Optical networking-related documentation, including Cisco ONS 15xxx product documentation, is available in a CD-ROM package that ships with your product. The Optical Networking Product Documentation CD-ROM is updated periodically and may be more current than printed documentation.

Ordering Documentation

Registered Cisco.com users may order Cisco documentation at the Product Documentation Store in the Cisco Marketplace at this URL:

http://www.cisco.com/go/marketplace/

Nonregistered Cisco.com users can order technical documentation from 8:00 a.m. to 5:00 p.m. (0800 to 1700) PDT by calling 1 866 463-3487 in the United States and Canada, or elsewhere by calling 011 408 519-5055. You can also order documentation by e-mail at tech-doc-store-mkpl@external.cisco.com or by fax at 1 408 519-5001 in the United States and Canada, or elsewhere at 011 408 519-5001.

Documentation Feedback

You can rate and provide feedback about Cisco technical documents by completing the online feedback form that appears with the technical documents on Cisco.com.

You can submit comments about Cisco documentation by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you will find information about how to:

- Report security vulnerabilities in Cisco products.
- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories, security notices, and security responses for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

To see security advisories, security notices, and security responses as they are updated in real time, you can subscribe to the Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed. Information about how to subscribe to the PSIRT RSS feed is found at this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you have identified a vulnerability in a Cisco product, contact PSIRT:

- For Emergencies only—security-alert@cisco.com

  An emergency is either a condition in which a system is under active attack or a condition for which a severe and urgent security vulnerability should be reported. All other conditions are considered nonemergencies.

- For Nonemergencies—psirt@cisco.com

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product (for example, GnuPG) to encrypt any sensitive information that you send to Cisco. PSIRT can work with information that has been encrypted with PGP versions 2.*x* through 9.*x*.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one linked in the Contact Summary section of the Security Vulnerability Policy page at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

The link on this page has the current PGP key ID in use.

If you do not have or use PGP, contact PSIRT at the aforementioned e-mail addresses or phone numbers before sending any sensitive material to find other means of encrypting the data.

Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your reseller.

Cisco Technical Support & Documentation Website

The Cisco Technical Support & Documentation website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, at this URL:

http://www.cisco.com/techsupport

Access to all tools on the Cisco Technical Support & Documentation website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

http://tools.cisco.com/RPF/register/register.do

Note Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support & Documentation website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco engineer. The TAC Service Request Tool is located at this URL:

http://www.cisco.com/techsupport/servicerequest

For S1 or S2 service requests, or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
EMEA: +32 2 704 55 55
USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

http://www.cisco.com/techsupport/contacts

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—An existing network is down, or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of the network is impaired, while most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Quick Reference Guide* is a handy, compact reference tool that includes brief product overviews, key features, sample part numbers, and abbreviated technical specifications for many Cisco products that are sold through channel partners. It is updated twice a year and includes the latest Cisco offerings. To order and find out more about the Cisco Product Quick Reference Guide, go to this URL:

  http://www.cisco.com/go/guide

- Cisco Marketplace provides a variety of Cisco books, reference guides, documentation, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

  http://www.cisco.com/go/marketplace/

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

  http://www.cisco.com/packet

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

  http://www.cisco.com/go/iqmagazine

  or view the digital edition at this URL:

  http://ciscoiq.texterity.com/ciscoiq/sample/

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

  http://www.cisco.com/ipj

- Networking products offered by Cisco Systems, as well as customer support services, can be obtained at this URL:

  http://www.cisco.com/en/US/products/index.html

- Networking Professionals Connection is an interactive website for networking professionals to share questions, suggestions, and information about networking products and technologies with Cisco experts and other networking professionals. Join a discussion at this URL:

  http://www.cisco.com/discuss/networking

- World-class networking training is available from Cisco. You can view current offerings at this URL:

  http://www.cisco.com/en/US/learning/index.html

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.