



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.

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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.

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.



Note

Prior releases contain the HAMPTONS system facility code. All HAMPTONS error codes have been renamed ONS15530. For current descriptions of HAMPTONS error messages, please see the [“ONS15530” section on page 54](#).

Table 1 System Facility Codes

Code	Facility
APS	Automatic protection switching
CI	Chassis hardware
CPU_REDUN	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 54 .

Table 1 System Facility Codes (continued)

Code	Facility
IPC	Interprocessor communications
LC_10G	10-Gbps ITU trunk card
LC_2P5G	2.5-Gbps ITU trunk card
LCMDC	Module hardware
METOPT	Defect indication
METOPT_DRV	Generic driver alarms
ODM	Online diagnostic manager
OIR	Online insertion and removal
ONS15530	ONS 15530 system
OPTICAL_IF	Optical interface
OPTICAL_IF_ALARMS	Optical interface alarms
OSCP	Optical Supervisory Channel Protocol
PATCH	Optical patch
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_ILOS_Y_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:

```
-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

%APS-2-INITSYS:

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

Action Check for sufficient CPU switch module memory.

%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).

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

%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.

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

%APS-6-AUTOFOVER:

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

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

%APS-2-INTRNLERR:

Explanation The APS software detected an internal error.

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.

%APS-6-ENAUTFOVR:

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

Action This message is informational only.

%APS-6-DISAUTFOV:

Explanation APS disabled autofailover for the indicated group.

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

%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.

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

%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.

Action This message is informational only.

%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).

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

%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.

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

`%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.

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

`%APS-2-CHNLISMATCH:`

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.

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

`%APS-2-FEFP:`

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.

Action Reload the system software.

`%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.

Action Reload the system software.

%APS-6-CHNLACTIVE:

Explanation A standby channel becomes the active channel.

Action This message is informational only.

CI

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

Explanation The chassis fan tray is not installed or fails.

Action Check fan tray.

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

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

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.

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

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

Action Check fan tray.

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

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

Action Check fan tray.

%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.

Action Check the fan tray.

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

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

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.

%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.

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.

%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.

Action Increase the ambient environmental temperature to greater than -15°C.

%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.

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

%CI-3-CHASSISTEMFLOW: Alarm: ASSERT, MINOR, Chassis, Chassis temp > low limit

Explanation The system chassis temperature critical limit (-15°C) has been exceeded.

Action Increase the ambient environmental temperature to greater than -15°C.

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

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

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.

`%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.

Explanation 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.

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

Explanation Access to chassis temperature sensor failed.

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.

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

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

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

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

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

Action Check the fan tray.

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

Explanation The specified power supply failed.

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.

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

Explanation Power source A is not in the system.

Action Install power source A if redundancy is required.

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

Explanation Power source B is not in the system.

Action Install power source B if redundancy is required.

%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.

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

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

Explanation The temperature of the system core is normal.

Action This message is informational only.

%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.

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

%CI-6-FANOK: Fan tray module OK

Explanation Chassis fan tray is operating normally.

Action This message is informational only.

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

Explanation The fan tray is operating normally.

Action This message is informational only.

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

Explanation The power supply is not present in the system.

Action Insert a power supply if redundancy is required.

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

Explanation The specified power supply is operating normally.

Action This message is informational only.

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

Explanation The specified power supply is operating normally.

Action This message is informational only.

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

Explanation The specified power supply is operating normally.

Action This message is informational only.

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

Explanation The specified power supply is present in the system.

Action This message is informational only.

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

Explanation The specified power supply is present in the system.

Action This message is informational only.

CPU_REDUN

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

Explanation The CPU switch module redundancy facility client registration fails.

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

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

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

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

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

Explanation The CPU switch module is unable to create the redundancy facility process.

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

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

Explanation The alarm appears when the CPU switch module cannot access the backplane IDPROM.

Action Confirm the CPU switch module is fully seated into the chassis slot.

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

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

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

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

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

Action Check standby CPU switch module functional version numbers.

`%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 CPU switch modules are conditionally redundant, which means that a switchover could result in a partial loss of system control.

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

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

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

Action You might need to upgrade the software image on the standby CPU switch module.

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

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

Action Check standby CPU switch module system image version numbers.

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

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

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

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

Explanation The configuration registers cannot be copied to the standby CPU switch module.

Action Confirm that IPC (interprocessor communications) is up.

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

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

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

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

Explanation The bootvar (boot variable) cannot be copied between CPU switch modules.

Action Confirm that interprocessor communications (IPC) is up.

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

Explanation The connection between CPU switch modules cannot transfer an enhanced high system availability (EHSA) message is not received from the standby CPU switch module.

Action Confirm that interprocessor communications (IPC) is up.

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

Explanation The standby CPU switch module cannot configure a specific port.

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

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

Explanation The standby CPU switch module cannot register a specific port.

Action Confirm that interprocessor communications (IPC) is up.

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

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

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

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

Explanation The standby CPU switch module cannot register a specific port manager.

Action Confirm that interprocessor communications (IPC) is up.

`%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 CPU switch modules.

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

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

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

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

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

Explanation The CPU switch module cannot create an interface data block for the interprocessor communication interface.

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

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

Explanation The CPU switch module cannot create a master control port.

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

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

Explanation The CPU switch module was unable to queue a request for delayed interprocess communication registration.

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

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

Explanation The CPU switch module detects the maximum number of client connections has been exceeded.

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

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

Explanation The CPU switch module detects the maximum number of controller drivers has been exceeded.

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

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

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

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


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

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

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

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

Explanation The error occurs when CPU switch module redundancy encounters a client ID error in the translation table.

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

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

Explanation The CPU switch module cannot read the IDPROM on the backplane.

Action Check that the CPU switch module 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.

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

Explanation The CPU switch module detects an invalid combination of redundant states.

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

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

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

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

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

Explanation The peer CPU switch module would not relinquish the arbitration lock.

Action Check that both the local and peer CPU switch modules are fully seated in the backplane. Check the status of the peer CPU switch module using the **show redundancy** command.

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

Explanation The alarm appears when the CPU switch module fails the line card access test for multiple line cards.

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

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

Explanation The alarm appears when the CPU switch module fails the online diagnostic internal PCI bus test.

Action Replace the CPU switch module.

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

Explanation The alarm appears when the CPU switch module fails the online diagnostic internal PC card slot test.

Action Replace the CPU switch module.

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

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

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.

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

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

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.

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

Explanation The peer CPU switch module reports an invalid severity value.

Action Check that both the local and peer CPU switch modules are fully seated in the backplane.

`%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.

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

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

Explanation The peer CPU switch module reports an invalid redundancy state.

Action Check that both the local and peer CPU switch modules are fully seated in the backplane.

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

Explanation The active CPU switch module is unable to send running configuration file to standby CPU switch module.

Action Confirm that interprocessor communications (IPC) is up.

`%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.

Action Confirm that interprocessor communications (IPC) is up.

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

Explanation The local CPU switch module cannot set its redundancy state to the desired calculated value.

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

`%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.

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

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

Explanation The alarm appears when the CPU switch module failed the online diagnostic internal SRC test.

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.

`%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.

Action Confirm that interprocessor communications (IPC) is up.

`%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.

Action The standby CPU switch module 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.

`%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.

Action Confirm that the CPU switch module is firmly seated in the chassis.

`%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.

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.

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

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

Action Check status and configuration of the standby CPU switch module.

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

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

Action Check status and configuration of the standby CPU switch module.

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

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

Action Check status and configuration of the standby CPU switch module.

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

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

Action Check status and configuration of the standby CPU switch module.

`%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.

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.

`%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 CPU switch module is present.

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

`%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.

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

%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.

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.

%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.

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.

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

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

Action This message is informational only.

%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.

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.

%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.

Action This message is informational only.

%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.

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

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

Explanation A CPU switch module redundancy switchover recently took place.

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

`%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.

Action This message is informational only.

`%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.

Action This message is informational only.

`%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.

Action This message is informational only.

`%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.

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

ESCON

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

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

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.

%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.

Action Check client receive cable and SFP optics.

%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.

Action Check client receive cable and SFP.

%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.

Action Check client receive cable and SFP.

%ESCON-3-MIB_LASER_TX_FLT_ALM: Optic Laser Transmit Fault

Explanation The client laser transmission fails.

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

%ESCON-3-MIB_HW_LASER_DOWN_ALM: Laser Disabled

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

Action Check remote client receive cable and SFP optics.

%ESCON-3-MIB_LOCAL_FL_LASER_DOWN_ALM: Local Failure, Laser Disabled

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

Action Check trunk and switch fabric connection.

%ESCON-3-LOSS_OF_LIGHT_ALM: Transceiver Loss of Light

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

Action Check client receive cable and SFP optics.

%ESCON-3-LASER_TX_FAULT_ALM: Optic Laser Transmit Fault

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

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

%ESCON-3-LOSS_OF_LOCK_ALM: Transceiver CDR Loss of Lock

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

Action Check client receive cable and SFP optics.

%ESCON-3-LOSS_OF_SYNC_ALM: Transceiver Loss of Sync

Explanation Loss of synchronization error on an ESCON aggregation card.

Action Check client receive cable and SFP optics.

%ESCON-3-HW_LASER_DOWN_ALM: Remote Loss of Light

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

Action Check remote client receive cable and SFP optics.

%ESCON-3-LOCAL_FL_LASER_DOWN_ALM: Local Failure

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

Action Check trunk and switch fabric connection.

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

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

Action Check client receive cable and SFP optics.

%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.

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

%ESCON-3-SEQ_ERR_THR_ALM: ESCON SEQ Error Threshold

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

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

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

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

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

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

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

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

%ESCON-3-ACCESS_FAIL: LRC access Failed

Explanation LRC access fails on an ESCON aggregation card.

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.

%ESCON-3-IDPROM_ACCESS_FAIL: Access to IDPROM Failed

Explanation Access to IDPROM fails on an ESCON aggregation card.

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.

%ESCON-3-INT_LPBK_FAIL: Internal CardLoopback Failed

Explanation Internal card loopback fails on an ESCON aggregation card.

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.

%ESCON-3-LPBK_THRU_PSC_FAIL: Loopback through PSC Failed

Explanation Loopback through PSC fails on an ESCON aggregation card.

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

%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.

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

%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.

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

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

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

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

%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.

Action Confirm that interprocessor communications (IPC) is up.

%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.

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

%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.

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

GEFC

`%GEFC-3-FPGA_NOT_SUPPORT: Functionality not supported in image [chars]`

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

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

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

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

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.

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.

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

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

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.

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

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

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.

`%GEFC-3-MIB_HW_LASER_DOWN_ALM: Laser Disabled`

Explanation A client laser is disabled.

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

%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.

Action Check client receive cable and SFP optics.

%GEFC-3-MIB_LOSS_OF_LOCK_ALM: Loss of Lock

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

Action Check connecting cable and laser receive power levels.

%GEFC-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync

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

Action Check client receive cable and SFP optics.

%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.

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.

%GEFC-3-MIB_KPA_TIMEOUT_ALM: Keep-alive timeout

Explanation Normal packets or CDL idle packets were not received.

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

%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.

Action Replace with Cisco qualified SFP optics.

%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.

Action Check client receive cable and SFP optics.

%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.

Action Check the connecting cable.

%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.

Action Check client receive cable and SFP optics.

%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.

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

%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.

Action Check CDL configurations at near and far end.

%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.

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

%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.

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

%GEFC-3-ACCESS_FAIL: LRC access Failed

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

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.

%GEFC-3-IDPROM_ACCESS_FAIL: Access to IDPROM Failed

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

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.

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

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

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.

`%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.

Action This message is informational only.

`%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.

Action This message is informational only.

HAMPTONS

All HAMPTONS error codes have been renamed ONS15530. Please see the [“ONS15530” section on page 54](#).

IPC

`%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.

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

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

Explanation An IPC message is received with an invalid size.

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

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

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

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

```
%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.

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.

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

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

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.

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

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

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.

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

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

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.

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

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

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.

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

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

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.

`%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.

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

```
%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.

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

```
%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.

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

```
%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.

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

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

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

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

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

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

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.

```
%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.

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.

`%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.

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

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

Explanation The given IPC message header cache is empty.

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

`%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.

Action The traceback should indicate the source of the problem.

`%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.

Action The traceback should indicate the source of the problem.

`%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.

Action The traceback should indicate the source of the problem.

`%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.

Action The traceback should indicate the source of the problem.

%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.

Action The traceback should indicate the source of the problem.

%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.

Action The traceback should indicate the source of the problem.

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

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

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

%LC_10G-3-INTERNAL_ERROR:

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

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.

%LC_10G-3-INTERNAL_CRITICAL:

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

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.

%LC_10G-3-MIB_AFOVR_ERR_ALM: Optical Switch Error

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

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.

%LC_10G-3-MIB_LOSS_OF_LOCK_ALM: Loss of Lock

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

Action Check network fiber and laser receive power levels.

%LC_10G-3-MIB_LOSS_OF_SYNC_ALM: Loss of Sync

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

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

%LC_10G-3-MIB_AFOVR_EVNT_ALM: AutoFailover Event

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

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

%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.

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.

%LC_10G-3-MIB_LASER_TEMP_ALM: Laser Temperature Alarm

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

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

%LC_10G-3-MIB_LASER_BIAS_ALM: Laser Bias Alarm

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

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

%LC_10G-3-MIB_AUTO_LASER_SHUTDOWN: Auto Laser Shutdown

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

Action Check the network fiber and laser receive power levels.

`%LC_10G-3-AFOVR_ERR: Autofailover Error`

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

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.

`%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.

Action Check the network fiber and laser receive power levels.

`%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.

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

`%LC_10G-3-AFOVR_EVNT: Autofailover event occurred`

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

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

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

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

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.

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

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

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

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

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

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

%LC_10G-3-LASER_AUTO_SHUTDOWN: Auto Laser Shutdown

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

Action Check the network fiber and received laser power levels.

%LC_10G-3-SYML_ERR_THR: Symbol Errors threshold

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

Action Check the network fiber and receive power levels.

%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.

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

%LC_10G-3-CRC_ERR_THR: CRC Errors threshold

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

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

%LC_10G-3-ACCESS_FAIL:

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

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_10G-3-IDPROM_ACCESS_FAIL:

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

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_10G-3-ETH_DCC_LPBK_FAIL:

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

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_10G-3-INT_LPBK_FAIL:

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

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_10G-3-LPBK_THRU_PSC_FAIL:

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

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_2P5G

%LC_2P5G-3-INTERNAL_ERROR:

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

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.

%LC_2P5G-3-INTERNAL_CRITICAL:

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

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.

%LC_2P5G-3-MIB_AFOVR_ERR_ALM: Optical Switch Error

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

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.

%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.

Action Check network fiber and laser receive power levels.

%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.

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

%LC_2P5G-3-MIB_AFOVR_EVNT_ALM: AutoFailover Event

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

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

%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.

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.

%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.

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.

%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.

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.

%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.

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.

%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.

Action Check the connecting cable and received optical power levels.

%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.

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

%LC_2P5G-3-AFOVR_ERR: Autofailover Error

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

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.

%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.

Action Check the network fiber and laser receive power levels.

%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.

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

%LC_2P5G-3-AFOVR_EVNT: Autofailover event occurred

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

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

%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.

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.

`%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.

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.

`%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.

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.

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

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

Action Check network fiber and laser receive power levels.

`%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.

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

`%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.

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

`%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.

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

`%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.

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.

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

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

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.

`%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.

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.

`%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.

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.

`%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.

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

`%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.

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

%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.

Action Check the network connection.

%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.

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

%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.

Action Check the connecting cable and laser power levels.

%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.

Action Check the connecting cable and laser power levels.

%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.

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.

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network connection for proper power level.

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

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

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

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

%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.

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

%LCMDC-3-IDPROM_ACCESS_FAIL: Alarm: ASSERT, MINOR, TranspdrSC [dec]/[dec], Access to IDPROM failed

Explanation The online diagnostics cannot access IDPROM.

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.

%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.

Action Check the connecting cable and laser power levels.

%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.

Action Check the connecting cable and laser power levels.

%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.

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.

%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.

Action Check the connecting cable and laser power levels.

%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.

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.

%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.

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.

%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.

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

%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.

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

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

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

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%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.

Action Remove and reinsert the transponder line card. If the problem persists, replace the OADM module.

%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.

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.

%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.

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.

%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.

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

%LCMDC-4-SH_ESEF_ALM : Egress SONET SEF

Explanation The monitoring functional image on a transponder line card reports severely errored frames.

Action Check the network clocking and receive power level.

%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.

Action Check the network clocking and receive power level.

%LCMDC-6-SH_ESEF_ALM : Egress SONET SEF

Explanation The performance monitor on a transponder line card reports severely errored frames.

Action Check the network clocking and receive power level.

METOPT

`%METOPT-6-DI_CLEARED: CDL Defect Indication: [chars]`

Explanation The specified alarm has cleared on the specified interface.

Action Check the interface state and receive power level and the cross connect state of the trunk card.

`%METOPT-6-DI_ASSERTED: CDL Defect Indication: [chars]`

Explanation The specified alarm has been asserted on the specified interface.

Action Check the interface state and receive power level and the cross connect state of the trunk card.

`%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.

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

`%METOPT_DRV-3-REPROGRAM_ERROR`

Explanation Reprogramming of the functional image fails and does not identify the nature of the problem.

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.

`%METOPT_DRV-3-TP_INTERNAL_ERROR: [chars]`

Explanation The transponder line card driver subsystem encountered an internal software error.

Action Ensure that the card has not been removed and that the interface exists in the system.

ODM

`%ODM-3-LC_TEST_FAIL: Slot [dec] [chars] Failed`

Explanation The online diagnostic test fails for the line card.

Action Check the line card seating and LEDs. Remove and reinsert the line card. If there is no change, then replace the line card.

`%ODM-3-SC_TEST_FAIL: Slot [dec], Subcard [dec], [chars] Failed`

Explanation The online diagnostic test fails for the subcard.

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.

`%ODM-3-CPU_TEST_FAIL: CPU card, %s Failed`

Explanation The online diagnostic test fails for this CPU switch module.

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.

`%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.

Action This message is informational only.

`%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.

Action This message is informational only.

`%ODM-3-PEER_INCOMPATIBLE: Online Diags Peer Version is different`

Explanation The version of the peer online diagnostics manager is different.

Action This message is informational only.

OIR

`%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.

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.

`%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.

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.

`%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.

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.

`%OIR-3-RF_REGISTRN_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.

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.

`%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.

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.

`%OIR-3-SUBCARD_DISC: Slot [dec]:[LC [dec]] subcards discovery`

Explanation A subcard is discovered.

Action Check to see if a subcard has been inserted.

`%OIR-3-SUBCARDDETECT: Slot [dec]:[LC [dec]] subcards detected`

Explanation A subcard is detected.

Action Check to see if a subcard has been inserted.

%OIR-3-SUBCARD_DEACT: Slot [dec]:[LC [dec]] subcards deactivated

Explanation A subcard is deactivated.

Action Check to see if a subcard has been removed from the system.

%OIR-3-SUBCARDREMOVE: Slot [dec] LC [dec]:subcard [dec] removed

Explanation A subcard is removed.

Action Check to see if a subcard has been removed from the system.

%OIR-3-DETECT:Detected [interface name] in slot [dec]

Explanation A line card is inserted.

Action Check to see if a linecard has been inserted.

%OIR-3-REMOVE:Removed [interface name] in slot [dec]

Explanation A line card is removed.

Action Check to see if a linecard has been removed from the system.

%OIR-3-PSM_SUBCARDDETECT:Slot [dec] [chars] [dec]:subcard [dec] inserted

Explanation A PSM subcard is detected.

Action Check to see if a PSM subcard has been inserted.

%OIR-3-PSM_SUBCARDREMOVE:Slot [dec] [chars] [dec]:subcard [dec] removed

Explanation A PSM subcard is removed.

Action Check to see if a PSM subcard has been removed from the system.

%OIR-3-XCVRDETECT:Slot [dec] Subcard [dec] port [dec]:line transceiver

Explanation A transceiver is detected.

Action Check to see if a transceiver has been inserted.

%OIR-3-XCVRREMOVE:Slot [dec] Subcard [dec] port [dec]:line transceiver

Explanation A transceiver is removed.

Action Check to see if a transceiver has been removed from the system.

ONS15530

`%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.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

`%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.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

`%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.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

`%ONS15530-2-PORTFAIL: Port Fail event received Slot [dec] Subcard [dec] Port [dec]; HWIDB, [chars]`

Explanation A port fails.

Action Check the trunk and client side connections.

`%ONS15530-2-ZEROLEN_MSG: Zero length while writing to linecard. Datalen [dec]`

Explanation A zero length message is received while writing to a module.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

`%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.

Action Report the error message text to Cisco technical support.

```
%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.

Action Confirm the compatibility of the CPU switch module hardware and image versions.

```
%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.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

```
%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.

Action Copy the error message exactly as it appears on the console or in the system log, and report it to Cisco technical support.

```
%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.

Action Copy the error message exactly as it appears, and report it to Cisco technical support.

```
%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.

Action Check the trunk side connections for kinks or a fiber cut.

OPTICAL_IF

```
%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

%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.

Action Check the source of the alarm.

```
%OPTICAL_IF-1-INTERNAL_ERROR : [chars]
```

Explanation The metopt subsystem encounters an internal software error. Use the error message text to identify the problem.

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

```
%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.

Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured low warning threshold value.

```
%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.

Action Check for receive power on the wavepatch interface. Make sure the receive power is above the configured low alarm threshold value.

```
%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.

Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured high warning threshold value.

```
%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.

Action Check for receive power on the wavepatch interface. Make sure the receive power is lower than the configured high alarm threshold value.

OSCP

`%OSCP-3-INTERNAL_ERROR: Cannot add Optical interface [dec]`

Explanation A CPU switch module cannot add a specific optical interface number.

Action Check the status or configuration of the specific optical interface.

`%OSCP-3-INTERNAL_ERROR: Cannot add OSCP interface [dec]/[dec]`

Explanation The CPU switch module cannot add the OSC interface wave.

Action Check the status or the configuration of the OSC interface.

`%OSCP-3-INTERNAL_ERROR: group id out of bounds [chars]`

Explanation A group ID is configured out of bounds of the group.

Action Check the configuration of the OSCP neighbor node IP address and peer group name.

`%OSCP-3-INTERNAL_ERROR: Hello state machine error in state [chars], event [chars]
port [dec]`

Explanation The OSCP receives a Hello state error.

Action Check the status of the transmitting node.

`%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).

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

`%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.

Action Check the OSCP configuration of the Hello interval and hold-down timers.

`%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.

Action Check the configuration and status of the NMS application and the interface being configured.

`%OSCP-3-INTERNAL_ERROR: Received unrecognized API message [chars]`

Explanation An unrecognized API message is received.

Action Check the configuration of the NMS applications and the connecting interface.

`%OSCP-4-BADPACKET: Invalid pkt: length shorter than header size Dec.`

Explanation An invalid packet is received from a network peer.

Action Check the originating device for a cause of the corrupted packets.

PATCH

`%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.

Action Configure the patch between the wavepatch and the filter interface having the same wavelength.

RF

`%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 CPU switch module is disabled.

Action Check the status of the active and standby CPU switch modules and the configuration of the disabling application.

`%RF-3-COMMUNICATION: Communication with the peer CPU has been established`

Explanation An informational message when communication is first established.

Action This message is informational only.

`%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 CPU switch module is not currently fully operational, or that there is a hardware problem in one of the CPU switch modules.

Action Check the status of the peer CPU switch module card. Check that both CPU switch modules are firmly seated in the chassis.

`%RF-3-IPC_PORT: Unable to create [chars] [chars]`

Explanation The CPU switch module card cannot create a configuration for an interface.

Action Check for sufficient CPU switch module memory.

`%RF-3-IPC_PORT: Unable to open [chars] [chars]`

Explanation The CPU switch module cannot open an interface.

Action Check for sufficient CPU switch module memory.

`%RF-3-IPC_PORT: Unable to register [chars] [chars]`

Explanation The CPU switch module cannot register the configuration for an interface.

Action Check for sufficient CPU switch module memory.

`%RF-3-SIMPLEX_MODE: The peer CPU has been lost`

Explanation The absence of the peer CPU switch module has been detected.

Action Check the status of the standby CPU switch module. It could have failed.

`%RF-3-STANDBY_RELOAD: The standby CPU is being reset because [chars] took too long processing a progression event`

Explanation The peer CPU switch module was reset. This allows recovery from an indeterminate standby state.

Action Confirm that interprocessor communications (IPC) is working correctly.

`%RF-3-STANDBY_RELOAD: The standby CPU is being reset because keepalive message(s) not received from peer CPU'`

Explanation The standby CPU switch module is reset because keepalive messages are not received from the active CPU switch module.

Action Check the status of the active CPU switch module and the communication between the active and standby CPU switch modules.

`%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.

Action Confirm that interprocessor communications (IPC) is up.

`%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.

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

SFP_SECURITY

`%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.

Action Check the list of supported SFPs for this version of the system software. An upgrade may be required for newer SFPs.

`%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.

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.

`%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.

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.

`%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.

Action Cisco SFPs are assigned unique serial numbers. Verify that the SFP was obtained from Cisco or a supported vendor.

`%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.

Action Reload the system. If the problem persists, contact TAC.

SRC

`%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.

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.

`%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.

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.

`%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.

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.

`%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.

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.

`%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.

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.

%SRC-3-LC_APS_TIMEOUT: SRC detected keep alive timeout on APS interface for slot [dec]

Explanation The SRC is unable to read the line card register.

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.

%SRC-3-LC_CMI_TIMEOUT: SRC detected keep alive timeout on CMI interface for slot [dec]

Explanation The SRC is unable to read the line card register.

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.

%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.

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

%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.

Action Upgrade the active software image.

VOA

%VOA-3-LOW_ALM_THR: Low Alarm Threshold for optical power on port

Explanation Low alarm threshold was exceeded for optical power level.

Action Check the network cable for drop in received optical power.

%VOA-3-LOW_WARN_THR: Low Warning Threshold for optical power on port

Explanation Low warning threshold was exceeded for optical power level.

Action Check the network cable for drop in received optical power.

%VOA-3-HIGH_ALM_THR: High Alarm Threshold for optical power on port

Explanation High alarm threshold was exceeded for optical power level.

Action Check the network cable for increase in optical power.

%VOA-3-HIGH_WARN_THR: High Warning Threshold for optical power on port

Explanation High warning threshold was exceeded for optical power level.

Action Check the network cable for increase in optical power.

Related Documentation

Refer to the following documents for more information about the Cisco ONS 15530:

- [Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15530 Planning Guide](#)
- [Cisco ONS 15530 Hardware Installation Guide](#)
- [Cisco ONS 15530 Optical Transport Turn-Up and Test Guide](#)
- [Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections](#)
- [Cisco ONS 15530 Configuration Guide](#)
- [Cisco ONS 15530 Command Reference](#)
- [Cisco ONS 15530 System Alarms and Error Messages](#)
- [Cisco ONS 15530 Troubleshooting Guide](#)
- [Network Management for the Cisco ONS 15530](#)
- [Cisco ONS 15530 TL1 Commands](#)
- [MIB Quick Reference for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15530 Software Upgrade Guide](#)

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

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http://www.cisco.com/public/countries_languages.shtml

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170 West Tasman Drive
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Obtaining Technical Assistance

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Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available: the Cisco TAC website and the Cisco TAC Escalation Center. The type of support that you choose depends on the priority of the problem and the conditions stated in service contracts, when applicable.

We categorize Cisco TAC inquiries according to urgency:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration. There is little or no impact to your business operations.
- Priority level 3 (P3)—Operational performance of the network is impaired, but most business operations remain functional. You and Cisco are willing to commit resources during normal business hours to restore service to satisfactory levels.
- Priority level 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operations are negatively impacted by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.
- Priority level 1 (P1)—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.

Cisco TAC Website

The Cisco TAC website provides online documents and tools to help troubleshoot and resolve technical issues with Cisco products and technologies. To access the Cisco TAC website, go to this URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco service contract have complete access to the technical support resources on the Cisco TAC website. Some services on the Cisco TAC website require a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to this URL to register:

<http://tools.cisco.com/RPF/register/register.do>

If you are a Cisco.com registered user, and you cannot resolve your technical issues by using the Cisco TAC website, you can open a case online at this URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, we recommend that you open P3 and P4 cases online so that you can fully describe the situation and attach any necessary files.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses priority level 1 or priority level 2 issues. These classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer automatically opens a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the Cisco support services to which your company is entitled: for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). When you call the center, please have available your service agreement number and your product serial number.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:

http://www.cisco.com/en/US/products/products_catalog_links_launch.html

- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:

<http://www.ciscopress.com>

- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access *Packet* magazine at this URL:
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- 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/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

This document is to be used in conjunction with the documents listed in the “[Obtaining Documentation](#)” section.

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