

# ENVM Messages

The following are environmental monitor error messages.

## Error Message

%ENVM-3-BLOWER: [chars] may have failed

**Explanation** One of the cooling fans on the router may be close to failure.

**Recommended Action** Replace the fan as soon as possible, or the system may either shut itself down or operate improperly.

## Error Message

%ENVM-3-CPUCARD: Unknown CPU type [dec]

**Explanation** A CPU card in the system was not recognized by the software.

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

## Error Message

%ENVM-2-ENVCRIT: [chars] measured at [chars]

**Explanation** One of the measured environmental test points has exceeded an extreme threshold.

**Recommended Action** Correct the specified condition, or the system may shut itself down as a preventive measure. This condition could cause the system to operate improperly. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## Error Message

%ENVM-4-ENVWARN: [chars] measured at [chars]

**Explanation** One of the measured environmental test points has exceeded the warning threshold.

**Recommended Action** Closely monitor the condition and correct if possible. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ENVM-3-LASTENV: [chars]

**Explanation** The nonvolatile EEPROM storage of environmental statistics has failed. This error may be caused by an EEPROM (hardware) failure.

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

**Error Message**

%ENVM-3-NOACK: Access to [chars] failed

**Explanation** One of the temperature sensors was not ready for the initiation of environmental temperature monitoring. The software is attempting to restart the sensor.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ENVM-3-NOFORK: Could not start environment polling process

**Explanation** Because the software could not spawn the environmental monitoring process, possibly because of low memory, no monitoring will be performed.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%ENVM-6-PSCHANGE: [chars] changed from [chars] to [chars]

**Explanation** A new type of power supply in the system has been detected. This message can be expected when hot-swappable power supplies are swapped. This is an informational message only.

**Recommended Action** No action is required.

**Error Message**

%ENVM-6-PSLEV: [chars] state changed from [chars] to [chars]

**Explanation** One of the power supply test points has undergone a state change.

**Recommended Action** Closely monitor the condition and correct if possible. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ENVM-0-SHUT: Environmental Monitor initiated shutdown

**Explanation** The environmental monitor has initiated a system shutdown.

**Recommended Action** Look at previous environmental messages to determine the cause of the shutdown and correct if possible. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## ENV\_MON Messages

The following are Cisco 12000 platform environmental monitor error messages.

**Error Message**

%ENV\_MON-2-FAN: Fan array has reached [chars] level.

**Explanation** There might be a hardware problem with the fan array. If the error condition continues for two minutes, the router shuts down automatically to prevent damage to router components.

**Recommended Action** If the system shuts down, replace the fan tray. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%ENV\_MON-2-FANOK: Fan array has recovered.

**Explanation** One or more of the variable speed fans has recovered from a prior failure.

**Recommended Action** No action is required.

**Error Message**

%ENV\_MON-1-SHUTDOWN: Environmental Monitor initiated shutdown

**Explanation** The system has reached a shutdown temperature level, and the router is being shut down to avoid any damage.

**Recommended Action** Attempt to resolve the temperature problem. If the problem cannot be resolved, contact your Cisco technical support representative for assistance.

**Error Message**

%ENV\_MON-2-SUPPLY: [chars] Power Supply is Non-Operational

**Explanation** A power supply is not working or has not been turned on.

**Recommended Action** Check that the power supply is on; if it is on and still does not operate, contact your Cisco technical support representative for assistance.

**Error Message**

%ENV\_MON-2-TEMP: [chars] temperature has reached [chars] level at [dec](C)

**Explanation** The temperature sensor specified has reached a warning or critical level and has reached or exceeded a condition that is outside its acceptable range.

**Recommended Action** Attempt to resolve the temperature problem. If the problem cannot be resolved, contact your Cisco technical support representative for assistance.

**Error Message**

%ENV\_MON-3-UNKNOWN\_TEMP\_SENSOR: sensor [dec] in slot [dec] value = [dec].[dec]

**Explanation** A temperature measurement has been received from an unknown sensor. A software error may have occurred, or the MBus data may have been corrupted.

**Recommended Action** No action is required. However, if this message recurs, indicating a continued condition, contact your Cisco technical support representative.

**Error Message**

%ENV\_MON-3-UNKNOWN\_VOLTAGE\_SUPPLY: supply [dec] in slot [dec] value = [dec]

**Explanation** A voltage measurement was received from an unknown supply. A software error may have occurred, or the MBus data may have been corrupted.

**Recommended Action** No action is required. However, if this message recurs, indicating a continued condition, contact your Cisco technical support representative.

**Error Message**

%ENV\_MON-2-VOLTAGE: [chars] volts has reached [chars] level at [chars](V)

**Explanation** The voltage supply specified has reached a critical level and is now out of specification.

**Recommended Action** Verify the failure and contact your Cisco technical support representative for the repair or replacement of the equipment.

## EPAD Messages

The following are encryption port adapter driver (EPAD) error messages.

**Error Message**

%EPAD-1-ERROR: [chars]

**Explanation** A software error has occurred. The message will include more information that can be used to identify the problem.

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

**Error Message**

%EPAD-1-INITFAIL: [chars]

**Explanation** The encryption port adapter has failed to initialize.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%EPAD-1-WARNING: [chars]

**Explanation** A nonfatal warning condition has occurred. The message will include more information about the nature of the problem.

**Recommended Action** If this message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## ESWITCH Messages

The following are Ethernet switch port adapter error messages.

**Error Message**

%ESWITCH-1-DEC21140: ESWITCH([dec]) Failed to initialize DEC21140, shutting down bay

**Explanation** A software or hardware error has occurred.

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

**Error Message**

%ESWITCH-1-EALE: ESWITCH([dec]) Failed to initialize EALE

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-MULTICASTADD: ESWITCH([dec]), Cannot add multicast [enet]
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-5-NOBRIDGEGROUP: ESWITCH([dec]), Bridge-group must be configured
```

**Explanation** A configuration error has occurred.

**Recommended Action** Configure a bridge group on the interface.

**Error Message**

```
%ESWITCH-5-NOMOREVLANS: ESWITCH([dec]), Only [dec] Bridge-Groups(vLANS) are supported
```

**Explanation** A configuration error has occurred.

**Recommended Action** Configure only the allowed number of bridge groups on the Ethernet switch port adapter.

**Error Message**

```
%ESWITCH-1-NOTPLX: ESWITCH([dec]) Device is not PLX 9060SD, Device reported [hex]
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-PCIINIT: ESWITCH([dec]) Failed to initialize PCI devices, shutting down bay
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-TSWITCH: ESWITCH([dec]) Failed to initialize TSWITCH
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-TSWITCHEALE: ESWITCH([dec]) Failed to initialize TSWITCH/EALE,  
shutting down bay
```

**Explanation** A software or hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-UNICASTADD: ESWITCH([dec]), Cannot add unicast [enet]
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-UNICASTDEL: ESWITCH([dec]), Cannot remove unicast [enet]
```

**Explanation** A hardware error has occurred.

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

**Error Message**

```
%ESWITCH-1-UNICASTDELP: ESWITCH([dec]), Cannot flush unicasts from port [dec]
```

**Explanation** A hardware error has occurred.

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

**Error Message**

%ESWITCH-1-UNICASTDELPV: ESWITCH([dec]), Cannot flush unicasts from vLAN [dec] on uplink

**Explanation** A hardware error has occurred.

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

**Error Message**

%ESWITCH-1-UNICASTDELV: ESWITCH([dec]), Cannot flush unicasts from vLAN [dec]

**Explanation** A hardware error has occurred.

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

**Error Message**

%ESWITCH-1-UNICASTLOCK: ESWITCH([dec]), Cannot lock unicast [enet]

**Explanation** A hardware error has occurred.

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

## ETHERNET Messages

The following are Ethernet for the C1000 series error messages.

**Error Message**

%ETHERNET-1-NOMEMORY: Unit [dec], no memory for [chars]

**Explanation** Insufficient memory exists to allocate the necessary memory pools.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

```
%ETHERNET-1-TXERR: [chars]: Fatal transmit error. Restarting...
```

**Explanation** A fatal transmit error has occurred on the Ethernet line, causing the line to be restarted. This condition may be caused by a bad configuration of the media type or a hardware problem with the cable, the transceiver, the other end of the cable, or the interface of the router itself. Extremely high traffic load can occasionally cause the router to generate this message.

**Recommended Action** Verify the configuration of the media type. If the media type is correctly set, replace the cable or the transceiver. If possible, try another port in the device to which the Ethernet is connected. If other measures fail, replace the hardware

**Error Message**

```
%ETHERNET-4-UNSUPPORTFC: Interface Ethernet[dec] not supported by [chars] image
```

**Explanation** The specific Ethernet interface is not supported by the operating system that is currently running.

**Recommended Action** If the hardware configuration is supported by a newer version of the operating system, you must upgrade the software to support this interface.

## EVENT Messages

The following are Event MIB error messages.

**Error Message**

```
%EVENT-3-INSERT_FAILURE: Failed to insert [chars]
```

**Explanation** The event process has failed to insert the newly created row in its linked list data structure.

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

**Error Message**

```
%EVENT-3-NULL_ELEMENT: Null pointer in the watched queue for [chars] test
```

**Explanation** The process has been woken up with a NULL element.

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

**Error Message**

%EVENT-3-NULL\_STRUCT: Null pointer to the [chars] structure

**Explanation** The process has been woken up with an element that had a null pointer to the test structure.

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

## EXPRESSION Messages

The following are Expression MIB error messages.

**Error Message**

%EXPRESSION-3-BADTYPE: Found data type [hex] in expression (should be [chars] type)

**Explanation** While an expression was being evaluated, an operand was found with an unexpected data type. The evaluation of this expression has been aborted.

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

**Error Message**

%EXPRESSION-3-FAILASSERT: Assertion failed: [chars]

**Explanation** An operation within the Expression MIB subsystem has encountered a data value that is out of range or of an unexpected value, indicating a logic error within the subsystem.

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

# FABRIC Messages

The following are Fabric Interface ASIC (FIA) error messages.

## Error Message

```
%FABRIC-3-CRC: Switch card [int]
```

**Explanation** An excessive number of CRC16 errors have been detected from one of the fabric switch cards. A hardware problem, either on the fabric card that is displayed in the error message or in the line card or RP that is reporting the error, may have occurred.

**Recommended Action** Enter the **show controllers fia** command on the RP and the **execute-on all show controllers fia** commands to determine if the problem is being seen by all the cards, or only one. If only one card is involved, replace that line card or RP. If all the cards are involved, replace the switch card.

## Error Message

```
%FABRIC-3-FIFOERR: [chars] FIFO Error was detected.  
[chars], Data = [hex].
```

**Explanation** A FIFO error has been detected by the FIA hardware.

**Recommended Action** The device will be reset. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## Error Message

```
%FABRIC-3-HALT: [chars]
```

**Explanation** The fabric hardware has not been able to correct itself.

**Recommended Action** Try reseating the boards. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## Error Message

```
%FABRIC-3-INIT: Bad Configuration master_sca = [hex] csc_installed = [hex].
```

**Explanation** The configuration of clock scheduler cards and switch cards is invalid.

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

**Error Message**

```
%FABRIC-3-LOS: LOS for slot [int] was [chars].
```

**Explanation** A loss of synchronization between the line card and the switch card was detected and cleared. The data shows the fabric card or cards on which the errors were detected.

**Recommended Action** Try reseating the boards. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

```
%FABRIC-3-PARITYERR: [chars] parity error was detected.  
[chars] Data = [hex].
```

**Explanation** A parity error has been detected by the FIA hardware.

**Recommended Action** The device will be reset. If the problem persists, the card will be automatically reset. If this message persists, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

```
%FABRIC-3-REQUESTERR: Request error was detected. Type = [dec]
```

**Explanation** A request error was detected by the FIA hardware.

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

**Error Message**

```
%FABRIC-3-UNEXPECTED: Unexpected interrupt was detected from the [chars] FIA.
```

**Explanation** An unexpected interrupt was detected by the FIA hardware.

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

## FALLBACK Messages

The following are Voice over IP (VoIP) fallback error messages.

### Error Message

`%FALLBACK-4-CACHE_OVERFLOW: Cache has overflowed.`

**Explanation** The fallback cache has overflowed and dumped one-quarter of its entries.

**Recommended Action** Increase the fallback cache size.

### Error Message

`%FALLBACK-3-INTERNAL_ERROR: [chars]: Internal error.`

**Explanation** An internal error has occurred.

**Recommended Action** No action is required.

### Error Message

`%FALLBACK-3-PROBE_FAILURE: A probe error to [IP_address] occurred - [chars]`

**Explanation** A probe error has occurred. Possibly, the responder on the remote router is not enabled, or no machine is on the specified IP.

**Recommended Action** Check the destination router.

### Error Message

`%FALLBACK-5-TEST_PROBE_ALREADY_RUNNING: A test probe is already running.`

**Explanation** Only one test probe may run at a time.

**Recommended Action** Wait until the first test probe is finished.

## FAN Messages

The following are fan error messages.

### Error Message

`%FAN-3-FAN_FAILED: Fan [dec] had a rotation error reported.`

**Explanation** The fan is not rotating properly.

**Recommended Action** Replace the fan if it is not rotating.

**Error Message**

`%FAN-3-FAN_OK: Fan [dec] had earlier reported a rotation error. It is ok now`

**Explanation** The fan had reported a rotation error but is now functioning properly.

**Recommended Action** No action is required.

## FASTBLK Messages

The following are Fast Block error messages.

**Error Message**

`%FASTBLK-4-CREATE_ERR: Fastblk pool creation error: [chars]`

**Explanation** An unexpected error occurred while a Fast Block memory pool creation operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

`%FASTBLK-4-DEALLOC_ERR: Fastblk deallocation error: [chars]`

**Explanation** An unexpected error occurred while a Fast Block memory deallocation operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

`%FASTBLK-4-GROW_ERR: Fastblk pool growth error: [chars]`

**Explanation** An unexpected error occurred while a Fast Block memory pool growth operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FASTBLK-4-QUEUE\_ERR: Fastblk queue error: [chars]

**Explanation** An unexpected error occurred while a Fast Block memory queue operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FASTBLK-4-SHRINK\_ERR: Fastblk pool shrink error: [chars]

**Explanation** An unexpected error occurred while a Fast Block memory pool shrink operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FASTBLK-4-WARNING: Unexpected condition: [chars]

**Explanation** An unexpected condition was detected while a Fast Block memory operation was being performed.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## FB Messages

The following are Cisco AS5800 feature board error messages.

**Error Message**

%FB-3-AGENTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

**Explanation** The software has detected an invalid state change for the MBus agent of the specified slot. This is a software error.

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

**Error Message**

%FB-2-BADPORT: Out of range PCI port [dec]

**Explanation** The software has specified an out-of-range port on the feature board. This is a software error.

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

**Error Message**

%FB-3-EVENT: Unknown event [dec] for slot [dec]

**Explanation** The software has generated an unknown event for the specified slot. This is a software error.

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

**Error Message**

%FB-3-INVALIDSLOT: Invalid [chars] feature board present in slot [dec]

**Explanation** A feature board has been inserted in a restricted slot. This is not permitted.

**Recommended Action** Reinsert the feature board in the appropriate slot.

**Error Message**

%FB-6-OIR: Card in slot [dec] [chars]

**Explanation** A dial shelf feature card was inserted or removed from the specified slot.

**Recommended Action** No action is required.

**Error Message**

%FB-3-SLOTSTATUS: Invalid change from [chars] ([dec]) to [chars] ([dec]) for slot [dec]

**Explanation** The software has detected an invalid state change for the specified slot. This is a software error.

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

## FB\_COREDUMP Messages

The following are feature board core dump error messages.

### Error Message

`%FB_COREDUMP-3-NOMEMORY: No Memory or buffer for [chars] to be send to [dec]`

**Explanation** There was insufficient memory for the router shelf to send any command or acknowledgment to the feature boards.

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

## FBINFO Messages

The following are Cisco AS5800 feature board crash information subsystem error messages.

### Error Message

`%FBINFO-3-CRASH: Feature board in slot [int] crashed`

**Explanation** The feature board in the slot indicated has crashed and sent a “CRASH\_START” message to the DSI. The DSI is now waiting for the rest of the crash information (stack trace, context, version, etc.) from the line card to be sent via the MBus. The crash information should be sent a few milliseconds after receiving the “CRASH\_START” message. The DSI software will be notified of the line card crash after all the crash information has been sent to the DSI. In the unlikely event that the subsequent crash information messages are not received by the DSI within a reasonable time limit (perhaps 10 seconds), the DSI will print a “TIMEOUT” error message indicating that the DSI did not receive the crash information messages and will notify the rest of the DSI software that the feature board has crashed.

**Recommended Action** Report this defect with as much information about the feature board in question, including the output of the **show context summary** command, the **show context slot n** command, and the **show tech-support n** command, in addition to the usual information gathered by entering the **show tech-support** command from the RS.

### Error Message

`%FBINFO-3-INVDEV: Invalid feature board number in Mbus callback (LC=[int])`

**Explanation** The feature board crash information subsystem on the DSI was called from the MBus subsystem with an invalid DEVICE identifier. The DEVICE in this case is supposed to be the slot number of the line card, but it was out of range. This indicates a software defect in the system.

**Recommended Action** Report this defect with as much information about the MBus subsystem as possible. There is no adverse effect to the DSI. The DSI will ignore the bad callback and continue. If the problem persists, reboot the router. It is unlikely but possible that the problem is due to bad MBus hardware somewhere in the system, most likely the DSI MBus module.

**Error Message**

```
%FBINFO-3-INVSTATE: Feature board crash server in bad state (LC=[int],
state=[int])
```

**Explanation** The feature board crash information subsystem for the feature board indicates that it is in an unknown state. This is due to a software defect in that subsystem.

**Recommended Action** Report this defect with as much information about the MBus subsystem and the feature board crash information subsystem possible.

**Error Message**

```
%FBINFO-3-NOPROCESS: Failed creating feature board complete process
```

**Explanation** When creating the crash complete process for the crash information subsystem, the create\_process call failed. The create\_process should not fail. This error is probably due to a software defect or hardware failure. This failure should happen only during initialization.

**Recommended Action** Rebooting the system should fix this error. If the condition persists on subsequent reloads of the system, a bug report should be filed and the system should be reloaded with a different image.

**Error Message**

```
%FBINFO-3-TIMEOUT: Timeout waiting for crash info from slot [int]
```

**Explanation** The crash information complete timer expired. When a feature board crashes, it sends information to the DSI for debugging and analysis. When the “START OF CRASH” message is received, a timer is set for approximately 10 seconds. The line card has 10 seconds to send all the crash information to the DSI. This process is not the same as a crash dump; this process contains a small amount of information that usually includes context, stack trace, etc. The information will be less than 8k bytes long. If an “END OF CRASH” information message is not received before the timer expires, the crash information record, which contains partial information is closed, this message is displayed, and the rest of the system is notified that the feature board has crashed, at which point it is probably reloaded. If the feature board sends more crash information after the timer goes off and before the system resets, the feature board additional “UNXMSG” error message might be displayed.

**Recommended Action** No action is required specifically because this message was displayed. However, since the feature board was crashing, there might be other defects to report. If this message is seen and the feature board has not crashed, report this defect with the output of the usual commands including the **show tech-support** command on the RS and on the feature board that did not crash but was referenced in this error message.

**Error Message**

```
%FBINFO-4-TRUNC: Crash record ([int]=[chars]) truncated (expected=[int],
actual=[int])
```

**Explanation** A feature board crashed and was sending crash information to the RS. The RS received a “CRASH RECORD START” message that indicated how many bytes of data would be received. Before the indicated number of bytes had been received, the RS received another “CRASH RECORD START” message indicating the start of another record. The first record was marked as truncated, and

the next record was received, but the truncation of the first message is noted in the later message. This error might be a symptom of another underlying problem in addition to the line card crash that resulted in the sending of the first “CRASH RECORD START” message.

**Recommended Action** Report this defect with as much information about the MBus subsystem and the line card crash information subsystem as possible.

#### Error Message

```
%FBINFO-4-UNXMSG: Unexpected crash info msg type ([chars]) in state [chars]
(LC=[int])
```

**Explanation** The feature board crash information subsystem has received an unexpected message for its state. The state and message type are given in the error message. This message does not have any adverse effect on the DSI since the DSI ignores the message and recovers from this occurrence. This message could occur if a feature board is failing. The source of the crash on the line card is more significant. If this message occurs and a line card has not crashed, it is caused by a stray or errant MBus message that should be researched. This problem could also be the result of a dropped MBus message.

**Recommended Action** Find the source of the crash on the feature board if one was crashing when the message occurred. If no feature board was crashing, report this defect with as much information about the MBus subsystem and the feature board crash information subsystem as possible. If this message persists, rebooting the router might remove this message.

## FDDI Messages

The following are Fiber Distributed Data Interface (FDDI) error messages.

#### Error Message

```
%FDDI-3-BADSLLOT: Unit [dec], Slot [dec] does not exist.
```

**Explanation** The main processor has detected an invalid slot location for one of the network interface cards. This should never happen.

**Recommended Action** Contact your Cisco technical support representative to obtain a replacement card.

#### Error Message

```
%FDDI-3-BADUNIT: Bad unit number [dec]
```

**Explanation** The system cannot find the chipset registers where it expects them to be. This is most likely a hardware error.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

```
%FDDI-3-FDDIFAIL: Interface [chars], [chars], [chars] = [hex]
```

**Explanation** The FDDI interface has failed.

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

**Error Message**

```
%FDDI-3-FDDIFAIL2: Interface [chars], [chars], [chars] = [hex], [chars] = [hex]
```

**Explanation** The FDDI interface has failed. This message appears as the second line of the preceding “FDDIFAIL” message and contains debug information.

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

**Error Message**

```
%FDDI-3-NOCAM: Unit [dec], No CAM exists for this interface.
```

**Explanation** A hardware or software error has occurred.

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

**Error Message**

```
%FDDI-1-NOMEMORY: Unit [dec], no memory for [chars]
```

**Explanation** The FDDI Management Information Base/Station Management (MIB/SMT) processing functions could not initialize because of insufficient memory.

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

# FECPM Messages

The following are Fast Ethernet (FE) Combination Port Module (CPM) device driver error messages.

## Error Message

```
%FECPM-3-BSCHUNT: BSC HUNT cmd for int [dec]/[dec] failed
```

**Explanation** An internal error has occurred.

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

## Error Message

```
%FECPM-1-DISCOVER: NM slot [dec]: only [dec] PCI dev found
```

**Explanation** Some of the interface controller devices on the FECPM NM did not initialize properly.

**Recommended Action** Power down, reinsert the port module, and reboot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## Error Message

```
%FECPM-3-DSCC4: DSCC4 chip init slot [dec] failed
```

**Explanation** An internal error has occurred.

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

## Error Message

```
%FECPM-1-INITFAIL: NM slot [dec]: PCI dev [dec] init failed
```

**Explanation** A PCI device on the FECPM NM failed to successfully initialize the hardware.

**Recommended Action** Power down, reinsert the port module, and reboot. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FECPM-3-INVALID\_CLOCKRATE: Unsupported clock rate req on int [dec]/[dec] - index [dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FECPM-3-INVALID\_SCC: Config req for invalid SCC via int [dec]/[dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FECPM-3-NOMEMORY: No memory for [chars] of unit [dec]

**Explanation** The router does not have enough memory to function properly.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%FECPM-3-OWNERR: Buffer owner ship error on int [dec]/[dec], pak=[hex]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FECPM-2-SCCFAIL: Init of SCC[dec] for int [dec]/[dec] failed to do [chars]

**Explanation** The software has failed to initialize or restart an SCC of a serial interface on the FECPM.

**Recommended Action** Clear the serial interface. If this error message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FECPM-3-SCCRESET: SCC reset for int [dec]/[dec] at [chars] failed

**Explanation** An internal error has occurred.

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

**Error Message**

%FECPM-3-SPI\_OP\_FAILED: NM base addr - [hex], WIC slot - [dec], SPI op failed

**Explanation** An internal software error has occurred.

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

**Error Message**

%FECPM-5-TOOBIG: On int [dec]/[dec], tx pak is [dec] bytes

**Explanation** A packet greater than the assigned MTU of this serial interface was placed in the transmission queue.

**Recommended Action** The system should recover. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FECPM-5-TOOSMALL: On int [dec]/[dec], tx pak size is [dec] bytes

**Explanation** A small packet (a packet of a size less than 2 bytes) was placed in the transmission queue. The interface cannot transmit packets that are 2 bytes or less in size.

**Recommended Action** The system should recover. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FECPM-3-TXCOMPNOTIFY: On int [dec]/[dec], tx\_comp\_notify vector is not set

**Explanation** An internal software error has occurred.

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

**Error Message**

```
%FECPM-3-UFHANDLE: UnderFlow handling on int [dec]/[dec] failed.
```

**Explanation** An internal error has occurred.

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

**Error Message**

```
%FECPM-5-UNDERFLOW: Transmit underflow on int [dec]/[dec]
```

**Explanation** While transmitting a frame, the local buffer of the serial controller chip received insufficient data because data could not be transferred to the chip fast enough to keep pace with its output rate. Normally, this problem is temporary, depending on transient peak loads within the system.

**Recommended Action** The system should recover. No action is required.

**Error Message**

```
%FECPM-1-UNKNOWN_WIC: NM slot [dec], wic card has an unknown id [hex]
```

**Explanation** The software does not recognize the type of WIC card plugged into the port module.

**Recommended Action** Check the part number on the WIC card and verify that it is supported in the IOS software release that is operational on the router. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

## FIB Messages

The following are IP Cisco Express Forwarding (CEF) radix tree error messages.

**Error Message**

```
%FIB-2-DFIBSWITCH: Error trying to turn on Distributed CEF without CEF on
```

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBBADXDRIPC: Invalid IPC/XDR. IPC len/XDRs len [dec]/[dec]. IPC at [hex]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBBADXDRSLOT: Invalid XDR slot. Type/len/slot [dec]/[dec]/[dec]. XDR at [hex]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBBADXDRTYPE: Invalid XDR type. Type [dec]. XDR at [hex]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-4-FIBCBLK: Missing cef table for tableid [dec] during [chars] event

**Explanation** An internal software error has occurred.

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

**Error Message****Error Message**

%FIB-3-FIBDISABLE: Fatal error, slot [#]: no memory

**Explanation** CEF has been disabled on the card installed in the slot specified in the error message.

If “no memory” appears in the error message, there was not enough memory on the card to download the CEF tables from the main board. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.

If “No window message, LC to RP IPC is non-operational” appears in the error message, CEF has been disabled on the card installed in the slot specified in the error message because the main board did not receive a keepalive from this card. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.

**Recommended Action** If “no memory” appears in the error message, add memory to the card specified in the error message and reenable distributed CEF. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the **show tech-support** command, contact your Cisco technical support representative, and provide the representative with the gathered information.

If “No window message, LC to RP IPC is non-operational” appears in the error message, try to restart CEF on the specified card by entering the **clear cef linecard slot-number** command in EXEC mode or entering a **microcode reload** global configuration command for the Cisco 7500 series. (Entering the **microcode reload** command will cause a traffic interruption of approximately two minutes.) Entering these commands should temporarily restore distributed CEF on the card. If the problem persists, consider upgrading your system to the latest Cisco IOS software release in your release train to take advantage of recent fixes. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the **show tech-support** command, contact your Cisco technical support representative, and provide the representative with the gathered information.

#### Error Message

```
%FIB-2-FIBDOWN: CEF has been disabled due to a low memory condition.
It can be re-enabled by configuring "ip cef [distributed]"
```

**Explanation** CEF was disabled due to a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade the RP so that it has more DRAM.

#### Error Message

```
%FIB-4-FIBEVENT: Invalid event. Type [dec], event [dec]
```

**Explanation** An internal software error has occurred.

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

#### Error Message

```
%FIB-4-FIBIDB: Missing cef idb for [chars] during [chars]
```

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-4-FIBIDBINDEX: Missing CEF idb for interface index [dec] during [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-4-FIBINVACL: Invalid ACL field: [chars] is [dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBLC\_OOSEQ: Slot [dec] disabled - Out of Sequence. Expected [dec], received [dec]

**Explanation** An internal software error has occurred. CEF switching is disabled on this slot.

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

**Error Message**

%FIB-4-FIBLCQUEUESTUCK: LC->RP queue limit exceeded - deferring [chars]

**Explanation** The IPC queue from the LC to the RP is full. This may be due to a failure of the IPC mechanism. Message sending has been deferred until the queue empties.

**Recommended Action** If this message recurs, indicating a continued condition, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FIB-3-FIBLOADBALINITFAIL: Error initializing [chars] load sharing algorithm ([chars]). Default load sharing algorithm restored.

**Explanation** Initialization of the FIB load sharing algorithm failed because of the condition stated. The default algorithm for this platform and image has been restored.

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

**Error Message**

%FIB-4-FIBMSG: Invalid message received. Type [dec], event/sub-type [dec], length [dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-2-FIB\_OVERLENGTH\_XDR: Overlength CEF XDR message - len [dec] > [dec]

**Explanation** An internal software error has occurred that prevented the sending of a CEF XDR message.

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

**Error Message**

%FIB-3-FIBPENDINGLIST: Error queueing interface [chars] to CEF pending event list.

**Explanation** An error occurred while queuing an interface to the CEF pending event list.

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

**Error Message**

%FIB-4-FIBREMOVE: Fibtype deletion execption: [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBSBINIT: Error initializing [chars] subblock data structure. [chars]

**Explanation** Initialization of the specified CEF subblock data structure could not be accomplished.

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

**Error Message**

%FIB-3-FIBSEQ: Out of sequence. State [dec] Rcvd [dec]

**Explanation** An internal software error has occurred. CEF switching is disabled on this slot.

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

**Error Message**

%FIB-4-FIBSPECIALPREFIX: Invalid Special Prefix Type. Type [dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBTABLEINIT: CEF table creation failure - [chars], tableid [dec]

**Explanation** An internal software error has occurred that prevented the creation of a new CEF table.

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

**Error Message**

%FIB-4-FIBXDRINV: Invalid format. [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-FIBXDRLLEN: Invalid XDR length. Type [dec][chars]. XDR/buffer len [dec]/[dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-2-IDBQINIT: Error initializing CEF IDB queue

**Explanation** The CEF IDB queue could not be initialized because of a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%FIB-3-INVALIDSTATE: Slot [dec] in invalid transition from [chars] to [chars]

**Explanation** An internal software error has occurred. The line card is in incorrect state.

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

**Error Message**

%FIB-2-LINECARDINIT: Error initializing CEF Linecard queue

**Explanation** The CEF line card queue could not be initialized because of a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%FIB-3-MAXPATHS\_EXCEEDED: Max paths is [dec], [dec] attempted. Address was [IP\_address], mask was [IP\_address]

**Explanation** An internal software error has occurred. There was an attempt to set up more than the supported number of routing paths. CEF switching has been disabled on this slot.

**Recommended Action** Investigate why the number of routing paths was exceeded.

**Error Message**

%FIB-3-NDB: Prefix [IP\_address][IP\_netmask] received with zero total traffic count

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-NOMEM: Malloc Failure, disabling [chars]

**Explanation** CEF has been disabled on the card located in the specified slot, because there was not enough memory on the card to download the CEF tables from the main board. Since Cisco 12000 series Internet Routers support distributed CEF switching only, this error also disables the card.

**Recommended Action** Add additional memory to the card specified in the error message and reenable distributed CEF. If this message recurs after a memory upgrade, copy the error message text exactly as it appears on the console or in the system log, enter the **show tech-support** command, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FIB-5-NOPUNTINTF: CEF resuming switching packets to [chars]

**Explanation** CEF had been punting packets switched to this interface to the next slower switching path. The interface configuration has changed, and CEF will resume switching to this interface.

**Recommended Action** No action is required.

**Error Message**

%FIB-3-NORPXDRQELEMS: Exhausted XDR queuing elements while preparing message for slot [dec]

**Explanation** While the RP was preparing to send a message to the line cards in the system, the RP exhausted the supply of queuing elements that were needed to enqueue the messages for transmission.

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

**Error Message**

%FIB-3-POLICY\_NULL\_ROUTE MAP: Empty or missing policy routemap found on [chars]

**Explanation** The expected policy route map was empty.

**Recommended Action** Investigate why an empty route map was associated with this slot.

**Error Message**

%FIB-4-PUNTINTF: CEF punting packets switched to [chars] to next slower path

**Explanation** The system could not use CEF to switch some or all packets out of the interface specified in the error message. This error is caused by the configuration of the interface. The affected packets were switched to the specified interface by using the next-slowest switching path.

**Recommended Action** If possible, configure CEF-supported and non-CEF-supported features on different subinterfaces. Some types of encapsulation on ATM interfaces are not supported by CEF.

**Error Message**

%FIB-2-RADIXINIT: Error initializing IP CEF radix tree

**Explanation** The radix tree could not be initialized due to a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

**Error Message**

%FIB-4-RADIXINSERT: Error trying to insert prefix entry for [IP\_address]/[dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-4-RATE: [chars] rate limit status [dec]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-3-THREAD: Thread processing error: [chars]

**Explanation** An internal software error has occurred.

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

**Error Message**

%FIB-2-XDRINIT: Error initializing CEF xdr chunks

**Explanation** The CEF XDR chunks could not be initialized because of a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

# FILESYS Messages

The following are file system error messages.

**Error Message**

```
%FILESYS-5-DEV: PCMCIA flash card [chars] [chars]
```

**Explanation** The system status of a file has changed. Follow any instructions provided with the message.

**Recommended Action** No action is required.

**Error Message**

```
%FILESYS-3-FLASH: [chars] [chars] error [dec]
```

**Explanation** A file system error has occurred.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

## FLASH Messages

The following are Flash nonvolatile memory error messages.

**Error Message**

```
%FLASH-3-CISERR: Error reading cis of Device [dec] : [dec] bytes read instead of [dec] bytes
```

**Explanation** An error was detected while reading the CIS of the device. Possible causes are the following:

- The card was removed while the router was trying to read the card.
- The card is not the correct type for the command issued.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

```
%FLASH-3-DEVERR: Error accessing the device : Device number = [dec] Error number = [dec]
```

**Explanation** An error was detected while accessing the CIS of the device. Possible causes are the following:

- The card was removed while the router was trying to access the card.
- The card is not the correct type for the command issued.

**Recommended Action** If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

**Error Message**

%FLASH-4-SIMM: System Flash Simms unequal. Simm1: [dec]M, Simm2: [dec]M

**Explanation** The System has detected an unsupported Flash memory configuration.

**Recommended Action** Ensure that the Flash memory SIMMs are of equal size. If they are not of equal size, either replace one of the SIMMs to make them equal size or remove the SIMM from System Flash slot 2.

## FM Messages

The following are Feature Manager (FM) error messages.

**Error Message**

%FM-4-ACL\_CONFLICT: Interface [chars] configured ACLs conflict in [chars] direction(s)

**Explanation** The configured routed ACLs for this interface conflict with the VACLs on this interface. The traffic on this interface may not comply with either the routed ACLs or VACLs under this condition.

**Recommended Action** Redefine either the VACLs or the routed ACLs, or deconfigure either the VACLs or the routed ACLs to avoid the conflict.

**Error Message**

%FM-2-ACL\_FAILURE: Interface [chars] traffic will not comply with ACLs in [chars] direction(s)

**Explanation** ACLs will not be applied on traffic for this interface due to TCAM resource contention.

**Recommended Action** The configured ACLs are too large to for all of them to fit in the hardware TCAM. Use the **mls tcam priority** command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

**Error Message**

%FM-2-BAD\_MESSAGE: Error in internal messaging - bad result [dec]

**Explanation** A software error may have affected programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-2-BAD\_TLV: Error in internal messaging - bad tlv [dec]

**Explanation** A software error occurred while programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-4-RACL\_REDUCED: Interface [chars] routed traffic will be software switched in [chars] direction(s)

**Explanation** TCAM resource contention has prevented ACLs from being applied in the TCAM for this interface. The traffic on this interface will be sent to the software so that the ACLs can be applied.

**Recommended Action** The configured ACLs are too large to all fit in the hardware TCAM. Use the **mls tcam priority** command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

**Error Message**

%FM-2-SEQUENCE: Error in internal messaging - lost message (i/f [chars], dir [chars], type [dec])

**Explanation** A software error may have occurred while programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-2-TCAM\_BAD\_LOU: Bad TCAM LOU operation in ACL

**Explanation** A software error caused a failure while programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-4-TCAM\_CAPMAP: Interface [chars] hardware TCAM LOU usage capability exceeded

**Explanation** The hardware TCAM lacks the capacity to handle the number of logical operations used with the configured ACLs on this specific interface.

**Recommended Action** The hardware TCAM can handle a maximum of 9 logical operations per interface and 64 logical operations in total. Reduce the use of logical operations in the ACLs.

**Error Message**

%FM-4-TCAM\_ENTRY: Hardware TCAM entry capacity exceeded

**Explanation** The hardware TCAM lacks the capacity to handle all of the configured ACLs.

**Recommended Action** The configured ACLs are too large to all fit in the hardware TCAM. Use the **mls tcam priority** command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

**Error Message**

%FM-2-TCAM\_ERROR: TCAM programming error [dec]

**Explanation** A software error has caused a failure while programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-4-TCAM\_LABEL: Hardware TCAM label capacity exceeded

**Explanation** The hardware TCAM does not have the capacity to handle the number of interfaces configured with ACLs.

**Recommended Action** The hardware TCAM can handle a maximum of 500 interfaces configured with ACLs. Use the **mls tcam priority** command to prioritize interfaces for hardware switching. Deconfigure ACLs from some of the interfaces.

**Error Message**

%FM-4-TCAM\_LOU: Hardware TCAM LOU capacity exceeded

**Explanation** The hardware TCAM does not have the capacity to handle the number of logical operations used with the configured ACLs.

**Recommended Action** The hardware TCAM can handle a maximum of 9 logical operations per interface and a maximum of 64 logical operations in total. Reduce the use of logical operations in the ACLs.

**Error Message**

%FM-2-TCAM\_MEMORY: NMP processor memory low

**Explanation** Inadequate memory has caused a failure while programming ACLs into the TCAM.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

**Error Message**

%FM-2-VACL\_FAILURE: Interface [chars] traffic will not comply with VACLs in [chars] direction(s)

**Explanation** VACLs will not be applied on traffic for this interface due to TCAM resource contention.

**Recommended Action** The configured ACLs are too large to all fit in the hardware TCAM. Use the **mls tcam priority** command to prioritize interfaces for hardware switching. Try sharing the same ACLs across multiple interfaces to reduce TCAM resource contention.

## FPGA Messages

The following are LS1010 chip-specific error messages.

**Error Message**

%FPGA-3-DOWNLOAD: Download Fail, FPGA# [dec]

**Explanation** An FPGA download has failed.

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

**Error Message**

%FPGA-3-MCAST: Multicast FPGA don't reset properly, Control Register=[hex]

**Explanation** The FPGA chip failed to respond after downloading its control microcode. This error is probably caused by a hardware failure. It is a fatal condition for the system and will be followed by a core dump.

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

**Error Message**

```
%FPGA-3-NOFORK: Can't create Per VC Counter daemon\n
```

**Explanation** The per-VC daemon could not be created.

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

**Error Message**

```
%FPGA-3-STATUS_PIN: Error in status pin, FPGA# [dec]
```

**Explanation** A status pin error has occurred.

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

**Error Message**

```
%FPGA-3-TRAFF: Traffic FPGA don't reset properly, Control Register=[hex]
```

**Explanation** The FPGA does not reset properly.

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

**Error Message**

```
%FPGA-3-TYPE: ***WARNING*** Invalid feature card type -  
Use higher version of software: [hex]\n
```

**Explanation** An invalid feature card type was used. A higher version of Cisco IOS software is required.

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

**Error Message**

```
%FPGA-3-VERSION: Feature Card version invalid/old. Feature Card  
Version:[dec].[dec], ASP Version:[dec].[dec]
```

**Explanation** The feature card version is not valid.

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

# FR Messages

The following are Frame Relay error messages.

## Error Message

```
%FR-3-BQ_DEQ_ERR: fr_bq_proc: unknown packet on broadcast queue, packet dropped!
```

**Explanation** An invalid packet on the Frame Relay broadcast queue was dropped.

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

## Error Message

```
%FR-3-BQ_DEQ_PTR: fr_br_proc: hdr-[hex] size-[dec] dlci-[hex] [hex] [hex]
```

**Explanation** An invalid datagram start was received on the Frame Relay broadcast queue. The packet was dropped.

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

## Error Message

```
%FR-3-BQ_ENQ_ERR: fr_oqueue: Invalid datagramstart [hex] [hex], pak dropped
```

**Explanation** A broadcast packet with an invalid datagram start in the fr\_oqueue has been received. The packet was dropped.

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

## Error Message

```
%FR-5-DLCICHANGE: Interface [chars] - DLCI [dec] state changed to [chars]
```

**Explanation** The state of the Frame Relay PVC specified by the DLCI has changed.

**Recommended Action** No action is required.

## Error Message

```
%FR-4-DLCIDELETE: Interface [chars] - DLCI [dec] - PVC use count [dec]
```

**Explanation** An attempt was made to remove a PVC DLCI while it was still being used.

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

**Error Message**

%FR-3-FRTSZEROCIR: FRTS: attempt to configure zero CIR

**Explanation** An attempt was made to configure a zero CIR. It should not be possible to configure a zero CIR; to do so would prevent data transmission on the VC.

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

**Error Message**

%FR-3-INCORRECT\_INT: Incorrect output (sub)interface, broadcast packet dropped!

**Explanation** The output subinterface specified in the packet is incorrect. The broadcast packet was dropped.

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

**Error Message**

%FR-4-NNISUBINTF: Subinterface not supported on Frame Relay NNI

**Explanation** An attempt was made to change the state of a subinterface on the Frame Relay NNI.

**Recommended Action** Reconfigure the Frame Relay link type or remove the subinterface.

**Error Message**

%FR-3-NOMEMORY: No memory for [chars]

**Explanation** The requested operation could not be accomplished because of a low memory condition.

**Recommended Action** Reduce other system activity to ease memory demands. If conditions warrant, upgrade to a larger memory configuration.

## FREEDM Messages

The following are CT3 trunk card Freedm error messages.

**Error Message**

%FREEDM-3-BUSYTIMEOUT: Freedm [chars] busy bit of register [hex] never cleared

**Explanation** The driver has timed out while waiting for the Freedm to acknowledge a request.

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

**Error Message**

%FREEDM-2-FATALEVENT: Freedm [chars] fatal event occurred: [hex][hex]

**Explanation** A catastrophic Freedm error has occurred.

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

**Error Message**

%FREEDM-3-HDLC\_ALLOC\_FAIL: Freedm [chars]: Allocation of HDLC controller [dec] for channel [dec] failed

**Explanation** Allocation of an HDLC controller has failed.

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

**Error Message**

%FREEDM-3-HDLC\_INUSE: Freedm [chars]: HDLC controller [dec] already in use on channel [dec]

**Explanation** An attempt was made to use an HDLC controller that was already in use.

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

**Error Message**

%FREEDM-3-INITFAIL: Freedm [chars] initialization failed: [chars]

**Explanation** The Freedm device has failed initialization.

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

**Error Message**

%FREEDM-3-REG\_READ\_TIME\_OUT: Busy Out Error of FREEDM [dec] [chars]

**Explanation** An attempt was made to read the Freedm internal RAM. The busy bit is still set for more than 10 seconds.

**Recommended Action** Copy the error message exactly as it appears on the console or in the system log. Issue the **show tech-support** command to gather data that may help identify the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show tech-support** command output, contact your Cisco technical support representative and provide the representative with the gathered information.

## FR\_ELMessages

The following are Frame Relay enhanced Local Management Interface (LMI) error messages.

### Error Message

`%FR_ELMessages-3-INCORRECT_ID: Incorrect ID`

**Explanation** An incorrect ID was reported in a QoS parameter message.

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

### Error Message

`%FR_ELMessages-3-INCORRECT_IE: Incorrect IE`

**Explanation** Enhanced LMI is not configured on the interface. The frame was dropped.

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

## FR\_FRAG Messages

The following are Frame Relay Fragmentation error messages.

### Error Message

`%FR_FRAG-3-BADPAK: Inconsistent packet: size [dec], linktype [chars], input [chars], output [chars]`

**Explanation** A packet that is being fragmented has inconsistent size and data.

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

