System Error Messages

This section lists and describes Cisco IOS system error messages. The system software sends these error messages to the console (and, optionally, to a logging server on another system) during operation. Not all system error messages indicate problems with your system. Some are purely informational, while others may help diagnose problems with communications lines, internal hardware, or the system software.

How to Read System Error Messages

The messages are organized according to the particular system facility that produces the messages. The facility sections appear in alphabetical order, and within each facility section, messages are listed alphabetically by mnemonic. Each error message is followed by an explanation and a recommended action.

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

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

FACILITY is a code consisting of two or more uppercase letters that indicate the facility to which the message refers. A facility can be a hardware device, a protocol, or a module of the system software. Table 15 lists the system facilities codes.

SUBFACILITY is a code that is relevant only in Channel Interface Processor (CIP) error messages. There are currently no CIP error messages in this section.

SEVERITY is a single-digit code from 0 to 7 that reflects the severity of the condition. The lower the number, the more serious the situation. Table 16 lists the severity levels.

MNEMONIC is a code that uniquely identifies the error message.

Message-text is a text string describing the condition. This portion of the message sometimes contains 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 17 lists the representations of variable fields and the type of information in them.

Table 15   Facility Codes

Code	Facility
ALC	ATM Line Card
BGP	Border Gateway Protocol
CM622	Cell Maker 622 (ATM SAR chip on ATM line card)
DRVGRP	Gigabit Route Processor Driver
ENV_MON	Environmental Monitor
FABRIC	Switching Fabric
GRP	Gigabit Route Processor
GRPPOS	Gigabit Route Processor Packet-Over-SONET
LC	Line Card
LCCOREDUMP	Line Card Core Dump
LCINFO	Line Card Information
LCLOG	Line Card Log
LCPLIM	Line Card Physical Layer Interface Module
LCPOS	Line Card Packet-Over-SONET
MBUS	MBus
PAD	Packet Assembler/Disassembler
PARSER	Parser
RADIUS	Radius database
SYS	System
TCP	Transmission Control Protocol
UCODE	Microcode
VIP	Versatile Interface Processor

Table 16   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

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). For more information, see the system configuration chapter and descriptions of the logging command in the appropriate Cisco IOS configuration guide and command reference publications.

Table 17   Representation of Variable Fields in Error Messages

Representation	Type of Information
[dec]	Decimal number
[hex]	Hexadecimal number
[chars]	Character string
[int]	Integer
[unsigned long]	Unsigned Long

Error Messages

This section lists error messages alphabetically by facility, severity, and mnemonic.

Error Message
```
%ALC-3-CMDERR: Interface ([chars]): [chars] IPC command fails (cause:
0x[hex]), MSGDEF_LIMIT_SLOW
```

Explanation   The ATM RP driver experienced IPC command error.

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

Error Message
```
%ALC-3-EVENT: Interface ([chars]): unknown IPC event ([int]) from linecard,
MSGDEF_LIMIT_SLOW
```

Explanation   The ATM RP driver receives a unknown event from line card.

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

Error Message
```
%ALC-3-INIT: ATM driver ([int]/[int]) initialization [chars].,
MSGDEF_LIMIT_SLOW
```

Explanation   The ATM RP driver experienced software initialization error.

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

Error Message
```
%ALC-4-NULLCEFIDB: Interface ([chars])
```

Explanation   This interface does not have CEF IDB by mistake.

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

Error Message
`%ALC-4-UNSUP: Interface ([chars]): unsupported feature: [chars]`

Explanation   This feature is not supported by GSR ATM RP.

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

Error Message
`%ALC-3-VCADJ: Per-VC adjacency error: VC:[int] [chars]`

Explanation   The ATM RP driver experienced per-VC adjacency software error.

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

Error Message
`%ALC-3-VCENCTYPE: VC:[int] unknown VC encapsulation type ([int])`

Explanation   The ATM RP driver experienced unknown VC encapsulation software error.

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

Error Message
`%ALIGN-3-TRACE: -Traceback= [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]`

Explanation   A trace that shows where the previous ALIGN error occurred.

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

Error Message
`%BGP-6-ASPATH: [chars] AS path [chars] received from [int]: [chars]`

Explanation   The remote BGP peer sent in an update with an invalid AS path.

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

Error Message
`%C5RSP-3-C5_SAGE0FAIL: Length error occurred on dma channel 0`

Explanation   A hardware error has occurred on dma channel 0.

Recommended Action   Report this error to your technical support representative.

Error Message
`%C5RSP-3-C5_SAGE1FAIL: Length error occurred on dma channel 1`

Explanation   A hardware error has occurred on dma channel 1.

Recommended Action   Report this error to your technical support representative.

Error Message

%CM622-4-FRMROP: error: [chars] (value=0x[hex]), MSGDEF_LIMIT_SLOW

Explanation   Line card ATM driver framer operation errors.

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

Error Message

%CM622-4-FWCKSUM: [chars] SAR firmware selftest failure (expected 0x[hex], obtained 0x[hex]), MSGDEF_LIMIT_SLOW

Explanation   Line card ATM SAR firmware checksum errors.

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

Error Message

%CM622-4-OP: error: [chars]

Explanation   Line card ATM driver general operation errors.

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

Error Message

%CM622-4-RPCMD: [chars] command error: [chars], MSGDEF_LIMIT_SLOW

Explanation   Line card ATM driver handles RP command errors.

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

Error Message

%CM622-4-RXSARIND: RX SAR doing [chars] error: [chars] (indication=0x[hex] 0x[hex] 0x[hex]), MSGDEF_LIMIT_SLOW

Explanation   Line card ATM driver RX SAR indication errors.

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

Error Message

%CM622-4-SAROP: [chars] SAR doing [chars] error: [chars]

Explanation   Line card ATM driver SAR operation error.

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

Error Message
```
%CM622-4-TXSARIND: TX SAR [chars] command error:[chars]
(indication=0x[hex])
```

Explanation Line card ATM driver TX SAR indication error.

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

Error Message
```
%CM622-4-VCCLOSE: VC:[int] is close pending, MSGDEF_LIMIT_SLOW
```

Explanation The VC is in the TX SAR close pending state.

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

Error Message
```
%CM622-4-VCCMD: VC:[int] [chars] error (cause: [chars]), MSGDEF_LIMIT_SLOW
```

Explanation CM622 ATM SAR VC operation error.

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

Error Message
```
%CM622-4-VCTYPE: VC:[int] unsupported vc encapsulation type=[int],
MSGDEF_LIMIT_SLOW
```

Explanation CM622 ATM SAR VC operation error.

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

Error Message
```
%DRVGRP-3-CMD: Interface ([chars]): [chars] (cause:[int])
```

Explanation Interface driver initialization errors.

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

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 automatically shuts down 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, and report it to your technical support representative.

Error Message

%ENV_MON-2-FANOK: Fan array has recovered.

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

Recommended Action   Informational message only. No action is required.

Error Message

%ENV_MON-1-SHUTDOWN: Environmental Monitor initiated shutdown

Explanation   The system 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 is not resolved, call your 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 is not turned on.

Recommended Action   Check that the power supply is turned on; if it is turned on and still does not operate, call your 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 is approaching or approached a condition that is outside the acceptable range.

Recommended Action   Attempt to resolve the temperature problem. If the problem is not resolved, call your 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 was received from an unknown sensor. This is probably a software error. It can also happen if the MBus data gets corrupted.

Recommended Action   This message is informational only and no action is required. If the condition persists contact your 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. This is probably a software error. It can also happen if the MBus data gets corrupted.

Recommended Action   This message is informational only and no action is required. If the condition persists contact your 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 call your technical support representative for repair or replacement.

Error Message
```
%FABRIC-3-FIFOERR: [chars] FIFO Error was detected.
[chars], Data = 0x[hex]., MSGDEF_LIMIT_MEDIUM
```

Explanation   A FIFO 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. Call your technical support representative for assistance if this message persists.

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

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

Recommended Action   Try reseating the boards. Call your technical support representative for assistance if this message persists.

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

Explanation   Invalid configuration of clock scheduler cards and switch fabric cards.

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

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

Explanation   A loss of synchronization between the line card and the switch fabric card was detected/cleared. The data shows the fabric card(s) from where the errors were detected.

Recommended Action   Try reseating the boards. Call your technical support representative for assistance if this message persists.

Error Message
```
%FABRIC-3-PARITYERR: [chars] parity error was detected.
[chars] Data = 0x[hex]., MSGDEF_LIMIT_MEDIUM
```

Explanation   A parity error was detected by the FIA hardware.

Recommended Action   The device will be reset. If the problem persists, the card will be automatically reset. Call your technical support representative for assistance if this message persists.

Error Message
%FABRIC-3-REQUESTERR: Request error was detected. Type = [dec],
MSGDEF_LIMIT_MEDIUM

Explanation A request error was detected by the FIA hardware.

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

Error Message
%FABRIC-3-UNEXPECTED: Unexpected interrupt was detected from the [chars]
FIA., MSGDEF_LIMIT_MEDIUM

Explanation An unexpected interrupt was detected by the FIA hardware.

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

Error Message
%GRP-3-ADDRERROR: Bad access to fabric-buffers: invalid address

Explanation This message indicates that an illegal access was made to fabric buffers. This usually indicates a software error.

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

Error Message
%GRP-4-BADLENGTH: Internal fabric register mismatch.
 Expected length = [int]. Received length = [int].
, MSGDEF_LIMIT_MEDIUM

Explanation This message indicates that a packet was received from the fabric but the length received and the length indicated in the buffer header do not match.

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

Error Message
%GRP-3-BADSTATE: Reassembly state is bad for slot [int]. State = [int]
, MSGDEF_LIMIT_MEDIUM

Explanation This message indicates that software is in an incorrect state for receiving the current packet over the fabric. The message indicates the slot the packet was received on and the state the reassembly was in.

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

Error Message
%GRP-4-BAD_PKT: CSAR: Received slot [int] Chan [int], MSGDEF_LIMIT_MEDIUM

Explanation   Bad packet is received at CSAR.

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

Error Message
%GRP-3-BAD_RESET:

Explanation   Software attempted to reset itself over the MBus.

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

Error Message
%GRP-3-BAD_STATE: Slot:[int] State:[chars]

Explanation   A message send was attempted to a card that was in an incorrect state. The card and state are shown in the error message.

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

Error Message
%GRP-3-BMAUCODE_ALLOC: Failed buffer allocation for [chars]

Explanation   Could not allocate a data structure to contain contents of the given BMA microcode file. There may be insufficient DRAM.

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

Error Message
%GRP-3-BMAUCODE_BAD: Slot [dec]: bad slot state ([dec]) or card type ([hex] - [chars])

Explanation   Unable to select or download the given BMA microcode on the given slot. The line card is either not present, there is a card that is not a line card in the given slot, or the line card is not enabled.

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

Error Message
%GRP-3-BMAUCODE_ENABL: No line cards enabled: selector [chars], feature [chars]

Explanation   Selection or download of the BMA microcode failed for all slots, selector and feature. There are no enabled line cards.

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

Error Message

`%GRP-3-BMAUCODE_FAIL: Slot [dec], selector [chars], feature [chars]`

Explanation   Selection or download of the BMA microcode failed for the given slot, selector and feature. The line card could be disabled or there was an error on the line card when attempting to select or download the BMA microcode.

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

Error Message

`%GRP-3-BMAUCODE_FILE: Error reading [chars]`

Explanation   Could not read the given binary BMA microcode, possibly because it is not found.

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

Error Message

`%GRP-3-BMAUCODE_SELECTOR: Command selector [chars] != file header selector [chars]`

Explanation   For the BMA microcode download command, the selector specified on the command line does not match that in the binary BMA microcode file.

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

Error Message

`%GRP-4-CAMFULL: Too many entries in the Ethernet CAM`

Explanation   This message indicates that too many MAC addresses were put into the Ethernet's CAM. This usually indicates a software error.

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

Error Message

`%GRP-3-CARVE_ADD: Failed to add buffer size [unsigned long] with delta [int]`

Explanation   Could not add the given buffer size to the SDRAM buffer carve specification because of internal parameter errors: exceeded available number of elements, excessive delta size, or null parameters.

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

Error Message
```
%GRP-3-CARVE_FAIL: [chars] BMA, slot [int]
```

Explanation   SDRAM buffer carve on the given line card failed, the GRP failed to send the line card the carve information via IPCs., or the carve result from the line card failed to return to the GRP. The line card could be disabled at this point.

Recommended Action   Try rebooting the line card. If this fails to fix the problem, consider power cycling the router. Copy the error message exactly as it appears, and report it to your technical support representative.

Error Message
```
%GRP-3-CARVE_FREEQS: Free queues ([int]) > allowed ([int])
```

Explanation   Number of free queues allowed for SDRAM buffer carving has been exceeded.

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

Error Message
```
%GRP-4-CARVE_MTU: Only [int] MTUs considered (max = [dec])
```

Explanation   The list of different MTUs that can be considered in SDRAM buffer carving is limited by the given maximum number.

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

Error Message
```
%GRP-3-CARVE_PCT: Sum percentage SDRAM buffers ([int]) > 100
```

Explanation   Specified sum of percentages for SDRAM buffer sizes has exceeded 100.

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

Error Message
```
%GRP-3-CARVE_SIZE: SDRAM buffer size [unsigned long] < its delta [unsigned
long]
```

Explanation   Rounded-up SDRAM buffer size should be larger than a given delta size.

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

Error Message
```
%GRP-3-CARVE_SPEC: Empty SDRAM buffer carve specification
```

Explanation   There is no SDRAM buffer carve specification to send to a line card.

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

Error Message
```
%GRP-3-CARVE_ZERO: [chars] BMA, slot [int], entry index [int]: zero SDRAM
buffer size
```

Explanation   The given SDRAM buffer size should not be zero.

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

Error Message
```
%GRP-4-CELLNEG: Detected an internal signal error on the fabric interface.
, MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates an internal signal between the CSAR and the FIA was deasserted too early.

Recommended Action   If this problem persists, then copy the error message exactly as it appears, and report it to your technical support representative.

Error Message
```
%GRP-4-COOKIE: Corrupt or missing MAC address cookie -- using random base
[sci_notation]
```

Explanation   This message indicates the part containing the MAC addresses allocated to this chassis could not be accessed or was found to be corrupt, either due to a hardware problem or manufacturing problem.

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

Error Message
```
%GRP-4-CORRUPT: Corrupted packet received. start_offset = [int]
 length = [int] card = [int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates that a buffer was received from the fabric with a corrupted buffer header.

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

Error Message
```
%GRP-4-CRC32: CRC32 error detected from slot [int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates that a crc32 error was detected.

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

Error Message
%GRP-3-ERROR: NULL

Explanation This message can take many forms. It provides information about a software error.

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

Error Message
%GRP-4-ETHERPAL: Ethernet PAL on the GRP is missing.

Explanation The system software detected that the ethernet PAL on the GRP is either missing or is improperly installed.

Recommended Action Call your technical support.

Error Message
%GRP-3-EXEC_ALLOC: No memory for command

Explanation No memory was available to allocate for the remote command string.

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

Error Message
%GRP-3-EXEC_ENABL: No line cards enabled

Explanation There are no enabled line cards.

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

Error Message
%GRP-3-EXEC_SLOT: Slot [dec] not enabled

Explanation There is no card in the given slot or it exists but is not enabled.

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

Error Message
%GRP-3-FABCOPY: [chars] address = 0x[hex]., MSGDEF_LIMIT_MEDIUM

Explanation This message indicates that the fabric driver software passed an incorrectly aligned pointer.

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

Error Message
```
%GRP-3-FABRIC: [chars] ([int])
```

Explanation The master gigabit route processor is unable to communicate over the fabric to the line card that is displayed in the error message.

Recommended Action Copy the message exactly as it appears, and report it your technical support representative.

Error Message
```
%GRP-3-FABRIC_MULTI: [chars] ([hex]), MSGDEF_LIMIT_MEDIUM
```

Explanation A problem has been detected between the master GRP and a line card over the fabric.

Recommended Action Copy the message exactly as it appears, and report it your technical support representative.

Error Message
```
%GRP-3-FABRIC_UNEXP: [chars] ([int])
```

Explanation An expected message was received from the line card indicated in the error message.

Recommended Action Copy the message exactly as it appears, and report it your technical support representative.

Error Message
```
%GRP-3-FABRIC_UNI: [chars] ([int]), MSGDEF_LIMIT_MEDIUM
```

Explanation A problem has been detected between the master GRP and a line card over the fabric.

Recommended Action Copy the message exactly as it appears, and report it your technical support representative.

Error Message
```
%GRP-4-FIRSTLAST: First/Last cell error detected from slot [int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation This message indicates that a cell was received with an invalid first/last bit set.

Recommended Action If this problem persists, then copy the error message exactly as it appears, and report it to your technical support representative.

Error Message
```
%GRP-4-FROMFABPAR: Parity error detected in from fabric buffer memory. Slot
[int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation This message indicates that a parity error was detected from the from fabric buffers.

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

Error Message

```
%GRP-3-IFCON: Too many Queued messages, No buffers available,
MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates that there are too many messages coming from the GSR line card. There are no more buffers on the GRP to handle with these messages. Try shutting down debugs on the line card or reloading it.

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

Error Message

```
%GRP-3-LDFAIL: Unable to download ucode from [chars] in slot [hex]
(bitmask), trying [chars] ucode
```

Explanation   For some reason, the line card image specified by the configuration is not suitable for downloading, or another error occurred. The line card image that is bundled within the GRP's system image will be loaded.

Recommended Action   Attempt to reload the microcode. If the message recurs, call your technical support representative for assistance.

Error Message

```
%GRP-3-MEMSIZE: Non oct-byte access to fabric buffers.
, MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates that an illegal access was made to fabric buffers. This usually indicates a software error.

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

Error Message

```
%GRP-3-MODULE: Missing [chars] for [chars]
```

Explanation   A hardware or software error occurred.

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

Error Message

```
%GRP-3-MSGTOOBIG: Datagram size too large ([int]), MSGDEF_LIMIT_MEDIUM
```

Explanation   This message indicates that a packet was attempted to be sent over the fabric but was too large to be sent. This usually indicates a software error.

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

Error Message

`%GRP-3-NOFILE: Ucode file [chars] not found, system ucode loaded in slot [hex] (bitmask).`

Explanation The file specified by the configuration was not found in Flash memory. The slot number represents a bit mask of the cards affected. The line card image that is bundled within the GRP's system image will be loaded.

Recommended Action Use show flash to determine if the file is located in Flash memory. If the file is there, attempt to reload the microcode. If the message recurs, call your technical support representative for assistance.

Error Message

`%GRP-3-NOMAC: Can't allocate MAC address for interface [int]/[int]`

Explanation No MAC address was available for allocation to the specified interface.

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

Error Message

`%GRP-4-NO_INTF: CSAR: No interface available Slot [int] Chan [int], MSGDEF_LIMIT_MEDIUM`

Explanation CSAR received a packet with no invalid interface.

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

Error Message

`%GRP-4-OLDVERSION: Running old version of GRP`

Explanation The system software detected an old version of the GRP.

Recommended Action Call your technical support for an upgraded version.

Error Message

`%GRP-3-PARITYERR: Parity error detected in the fabric buffers. Data ([hex]) , MSGDEF_LIMIT_MEDIUM`

Explanation A parity error has been detected by the fabric interface hardware on the GRP. The hexadecimal number indicates the error interrupt vector. This usually indicates a hardware problem on the GRP.

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

Error Message

`%GRP-3-QFULLPAR: Parity error detected. , MSGDEF_LIMIT_MEDIUM`

Explanation This message indicates that a parity error was detected between the CSAR and the FIA on the queue full signals. This usually indicates a hardware error.

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

Error Message
```
%GRP-4-Q_CORRUPT: CSAR: HoldQ Count is corrupted, MSGDEF_LIMIT_MEDIUM
```

Explanation CSAR: Queue indicates packet even though none is available.

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

Error Message
```
%GRP-4-REASSEMBLY: Reassembly error detected. Slot = [int].
 State = [int], Status = [int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation This message indicates that there has been an error in reassembling a buffer over the fabric. The message indicates the slot that the errored packet was received on and the state that the reassembly was in. The status of the packet can be decoded as follows: (00 - middle buffer), (01 - last buffer), (10 - first buffer), (11 - only buffer).

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

Error Message
```
%GRP-3-RESTART: NULL
```

Explanation The SDRAM buffer memory was reset and reallocated.

Recommended Action Report this error to your technical support representative, if memory is not reset manually (by changing the MTU on an interface, for example).

Error Message
```
%GRP-4-RXFAB: From fabric buffers are out of order with software.
 Index = [int], Expected = [int], Received = [int].
, MSGDEF_LIMIT_MEDIUM
```

Explanation This message indicates that the fabric driver software is out of sync with the fabric hardware.

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

Error Message
```
%GRP-4-SEQUENCE: Sequence error detected from slot [int]. Expected [int]
, MSGDEF_LIMIT_MEDIUM
```

Explanation This message indicates that a cell was received with an incorrect sequence number.

Recommended Action If this problem persists, then copy the error message exactly as it appears, and report it to your technical support representative.

Error Message

`%GRP-3-TYPE: Unknown link type [int] int [int]/[int]`

Explanation   A packet was received on an interface that had an unknown link type. This most likely indicates that there is a software problem.

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

Error Message

`%GRP-3-UCODEFAIL: [chars] [int]`

Explanation   The image that was downloaded to the line card was rejected by the line card.

Recommended Action   Attempt to reload the microcode. If the message recurs, call your technical support representative for assistance.

Error Message

`%GRP-3-UCODETIMEOUT: [chars] ([int])`

Explanation   The line card did not acknowledge the download of the image.

Recommended Action   Attempt to reload the line card image. If the message recurs, call you technical support representative for assistance.

Error Message

`%GRP-3-UNDEF_HDR: Slot [int]:[hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex], MSGDEF_LIMIT_MEDIUM`

Explanation   This message indicates that a packet was received from the fabric but there was a problem in the header. The data that appear are the first bytes from the buffer header and payload.

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

Error Message

`%GRP-4-UNEXPBUFFER: Unexpected buffer finished sending to fabric ([int])., MSGDEF_LIMIT_MEDIUM`

Explanation   This message indicates that a to-fabric buffer completed sending; however, the software was not expecting this buffer to be completed.

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

Error Message

`%GRP-3-UNEXPINT: [chars] [hex], MSGDEF_LIMIT_MEDIUM`

Explanation   An unexpected interrupt occurred from a device on the GRP. The device that caused the interrupt is given in the error message output.

Recommended Action   Copy the error message exactly as it appears along with the output of show tech, and report it to your technical support representative.

Error Message
```
%GRPPOS-4-MSGVERSION: Incompatible message version with slot [dec],
MSGDEF_LIMIT_GLACIAL
```

Explanation There is incompatibility between the message version being sent by the line card and the message version used by the GRP. This type of incompatibility could happen if the GRP and line card are using different Cisco IOS software versions due to a GRP OIR event

Recommended Action The only problem is that pos statistics are not reported to the GRP, a microcode reload will solve the problem.

Error Message
```
%GRPPOS-3-OP: Interface ([chars]): [chars], MSGDEF_LIMIT_SLOW
```

Explanation The POS RP driver receives an unexpect event.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show gsr, show ipc status commands to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show gsr, show ipc status output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%GRPPOS-3-TIMEOUT: Interface ([chars]): [chars], MSGDEF_LIMIT_SLOW
```

Explanation The POS RP driver queries the line card for SONET information; the line card didn't reply.

Recommended Action Copy the error message exactly as it appears on the console or in the system log. Issue the show gsr, show ipc nodes, show ipc ports, show ipc status commands to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the show gsr, show ipc nodes, show ipc ports, show ipc status output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%GSRIPC-3-PORT: port ([chars]) already exists, MSGDEF_LIMIT_MEDIUM
```

Explanation The port to be created unexpectedly exists.

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

Error Message
```
%GSRIPC-3-REXEC: [chars]
```

Explanation This message is a remote execution open port failure.

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

Error Message

%GSRIPC-3-SYSCALL: For port ([chars]): [chars] fails (cause: [chars]),
MSGDEF_LIMIT_MEDIUM

Explanation   This message is an IPC kernel system call failure.

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

Error Message

%GSR_ENV-1-CRITICAL: Slot [dec] [chars] [dec] [chars] [chars] [dec]
[chars]);

Explanation   The slot environmental parameters are in the critical range. The card in the slot may
be powered down for safety reasons.

Recommended Action   Rectify the condition immediately.

Error Message

%GSR_ENV-1-CRITICAL_FAN: Slot [dec] [chars] [int] [chars]);

Explanation   One or more fans are broken/missing. This may cause the chassis to overheat.

Recommended Action   Replace bad fan tray.

Error Message

%GSR_ENV-0-POWERDOWN: [chars] in slot [dec]);

Explanation   The slot has been powered down for safety reasons.

Recommended Action   Rectify the specified condition before using the card again.

Error Message

%GSR_ENV-0-SHUTDOWN: Slot [dec] [chars] [dec] [chars] [chars] [dec]
[chars]);

Explanation   The slot may be powered down for safety reasons. The card will be powered down
after three warnings.

Recommended Action   Rectify the specified condition before using the card again.

Error Message

%GSR_ENV-0-SHUTDOWN_PS: Slot [dec] [chars] [int] [chars]);

Explanation   The power supply input voltage has failed.

Recommended Action   Check to make sure the power supply is plugged in and turned on.

Error Message
%GSR_ENV-2-WARNING: Slot [dec] [chars] [dec] [chars] [chars] [dec]
[chars]);

Explanation The slot environmental parameters specified are outside the normal range of operation.

Recommended Action Rectify the warning condition specified. e.g., for temperature warnings, verify that adequate cooling is available, the empty slots have blanks etc. For voltage warnings check the appropriate power supply. These conditions must be rectified immediately.

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

Explanation An error occurred in the IPC slave discovery mechanism. It might result in a malfunction in the operation of the IPC.

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message
%IPC-4-CONSISTENCY: Message failed consistency check: [chars]

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

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message
%IPC-3-DELETED: Attempt to delete an IPC message (0x[hex]) a second time,
MSGDEF_LIMIT_SLOW

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

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative along with the output of the show ipc status and show ipc queue commands.

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

Explanation The system is out of pak-type buffers of required size.

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative.

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

Explanation Someone requested a message that was too large for the IPC system.

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative along with the output of the show ipc status command.

Error Message

`%IPC-5-INVALID: [chars] [chars]=0x[hex], MSGDEF_LIMIT_SLOW`

Explanation   The IPC message has an invalid seat/port/callback.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

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

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

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

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

Explanation   The given IPC message header cache has emptied.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative along with the output of the show ipc status command.

Error Message

`%IPC-5-NODELFUNC: Delayed init function not available, MSGDEF_LIMIT_SLOW`

Explanation   The IPC application cannot be initialized because its initialization function does not appear in the IPC initialization function list.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

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

Explanation   The IPC user failed to provide any means of handling the received message.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative along with the output of the show ipc ports command.

Error Message

`%IPC-2-NOMEM: No memory available for [chars]`

Explanation   The IPC protocol subsystem could not obtain the memory it needed.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

`%IPC-5-NULL: [chars] [chars]=0x[hex], MSGDEF_LIMIT_SLOW`

Explanation   IPC message has Null Seat/Port/Callback

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

`%IPC-5-NULLDELFUNC: Passed Null Delayed function to register,`
`MSGDEF_LIMIT_SLOW`

Explanation   The IPC cannot register the application's NULL function in the IPC initialization function list.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

`%IPC-2-ONINT: Called from interrupt level: [chars]`

Explanation   The IPC user attempted a prohibited call into the IPC while the IPC was running on the interrupt stack.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative along with the output of the show ipc status command.

Error Message

`%IPC-5-OUTPUT_FAIL: Num [dec] Func=0x[hex] Seat: ID=[hex] %10s Sent %6d`
`Heard %6d, MSGDEF_LIMIT_SLOW`

Explanation   IPC output failed in the function for the given seat with the given sequence numbers for sending and receiving.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

`%IPC-5-QFULL: Q=0x[hex] [chars] [dec], MSGDEF_LIMIT_SLOW`

Explanation   The IPC queue is full.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message

`%IPC-5-SEQ_ERR: [chars] Num [dec] From [hex], MSGDEF_LIMIT_SLOW`

Explanation   These are errors in IPC message sequence numbers.

Recommended Action   Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message
%IPC-5-SLAVELOG: VIP-[chars]

Explanation The Cisco IOS software running on a Versatile Interface Processor (VIP), generated this message. The error message has been passed up to the Route Processor (RP) or Route Switch Processor (RSP) for display. This message appears only if the user has configured the service slavelog command.

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative.

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

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

Recommended Action Copy the error message exactly as it appears on the console, and report it to your technical support representative.

Error Message
%IPCGRP-3-CARDERR: [chars]

Explanation An IPC card has registered itself to the IPC master twice. The card malfunctioned, and its IPC is not active.

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

Error Message
%IPCGRP-3-CMDOP: IPC command [int] (slot[int]/[int]): [chars]

Explanation The IPC command is processing operational errors.

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

Error Message
%IPCGRP-3-CREATE_FAIL: [chars] [chars], MSGDEF_LIMIT_MEDIUM

Explanation The software failed to create an IPC port on the GRP.

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

Error Message
%IPCGRP-3-EVENTOP: Event (slot[int]): [chars]

Explanation IPC event processing operational errors.

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

Error Message

%IPCGRP-3-EXECCMDMSG: Incorrect msg size (size=[int])

Explanation   Wrong size of a REXEC-On IPC command.

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

Error Message

%IPCGRP-3-INVNUM: [chars] ([int]), MSGDEF_LIMIT_MEDIUM

Explanation   The IPC application tried to send a message that was larger than the IPC could handle. The message was not transmitted.

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

Error Message

%IPCGRP-3-MSGERR: [chars] ([int])

Explanation   The slave IPC cannot register with master.It cannot exchange messages with the master.

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

Error Message

%IPCGRP-3-NBLKCMD: [chars], MSGDEF_LIMIT_MEDIUM

Explanation   Nonblocking IPC command queue initialization failure.

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

Error Message

%IPCGRP-3-NOHWIDB: Cannot find hwidb for interface([int]/[int])

Explanation   The interface identifier does not exist for the interface addressed by the corresponding IPC message.

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

Error Message

%IPCGRP-3-NULLMSG: Null [chars] ipc message

Explanation   An empty IPC message, which is not expected to be received.

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

Error Message

%IPCGRP-3-NULLREXECCMD: Received empty ipc rexec cmd message

Explanation   This is an REXEC-On IPC command failure.

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

Error Message

%IPCGRP-3-REXEC: [chars]

Explanation   This is an REXEC-On IPC command failure.

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

Error Message

%IPCGRP-3-SEATERR: [chars] ([int])

Explanation   The ID associated with an IPC card is either missing, duplicated, or cannot be created.

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

Error Message

%IPCGRP-3-SYSCALL: System call for command [int] (slot[int]/[int]) :
[chars] (Cause: [chars]), MSGDEF_LIMIT_MEDIUM

Explanation   IPC kernel system call error.

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

Error Message

%IPCLC-3-EVENT: Event ([int]) [chars] error

Explanation   Command/event processing operational errors.

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

Error Message

%IPCLC-3-EVENTSYS: Event ([int]) system call [chars] error (cause: [chars])

Explanation   IPC kernel system call errors.

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

Error Message

```
%IPCLC-3-MSGERR: [chars] ([dec]), MSGDEF_LIMIT_MEDIUM
```

Explanation The line card IPC cannot register with the route processor. It cannot exchange messages with the route processor.

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

Error Message

```
%IPCLC-3-OP: [chars]
```

Explanation Command/event processing operation errors.

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

Error Message

```
%IPCLC-3-REPLY: Reply (to cmd [int]) [chars] error, MSGDEF_LIMIT_MEDIUM
```

Explanation Command/event processing operational errors.

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

Error Message

```
%IPCLC-3-REPLYSYS: Reply (to cmd [int]) system call [chars] error (cause:
[chars]), MSGDEF_LIMIT_MEDIUM
```

Explanation Reply-to-RP-command operation errors.

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

Error Message

```
%ISDN-6-LAYER2DOWN: Layer 2 for Interface [chars], TEI [int] changed to
down
```

Explanation This is an informational message. It is sent when an ISDN Layer 2 logical link is down. It also shows the TEI associated with this logical link.

Recommended Action No action is required.

Error Message

```
%ISDN-6-LAYER2UP: Layer 2 for Interface [chars], TEI [int] changed to up
```

Explanation This is an informational message. It is sent when an ISDN Layer 2 logical link is up. It also shows the TEI associated with this logical link.

Recommended Action No action is required.

Error Message
%LAT-3-BADDATA: Tty[t-line], Data pointer does not correspond to current
packet

Explanation   An internal software error occurred.

Recommended Action   If this message recurs, call your technical support representative for
assistance.

Error Message
%LAT-3-BUFFULL: Tty[t-line], data buffer full with count [dec]

Explanation   An internal software error occurred.

Recommended Action   If this messages recurs, call your technical support representative for
assistance.

Error Message
%LAT-3-NOSYNC: Tty[t-line], Output data ptrs out of sync with byte count

Explanation   An internal software error occurred.

Recommended Action   If this message recurs, call your technical support representative for
assistance.

Error Message
%LAT-3-REUSE: Tty[t-line], Attempt to re-use slot array, empty = [dec],
fill = [dec]

Explanation   An internal software error occurred.

Recommended Action   If this message recurs, call your technical support representative for
assistance.

Error Message
%LC-3-BMABUFF: [chars] BMA has [int] buffers in queue [int] when maximum
of [int] are allowed, MSGDEF_LIMIT_MEDIUM

Explanation   Number of buffers in one of the BMA queues has overflowed.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical
support representative

Error Message
%LC-3-BMACMDFTCH: Problem in BMA command fetching, status=[dec] [chars]
BMA, MSGDEF_LIMIT_MEDIUM

Explanation   The BMA encountered problems while trying to fetch the given command. If this
message appears more than once it might indicate a hardware problem. The GRP should recognize
a loss of communication with the line card and reload it.

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

Error Message
`%LC-3-BMACMDLOST: [chars] BMA has lost a command, MSGDEF_LIMIT_MEDIUM`

Explanation   The given BMA has lost a command. If this message appears more than once it might indicate a hardware problem. The GRP should recognize a loss of communication with the line card and reload it.

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

Error Message
`%LC-3-BMACMDRPLY: Problem in BMA reply to command type [dec] [chars] BMA sequence no=[dec], MSGDEF_LIMIT_MEDIUM`

Explanation   There was a problem in the reply to the given BMA command. If this message appears more than once it might indicate a hardware problem. The GRP should recognize a loss of communication with the line card and reload it.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
`%LC-3-BMAERR: [chars] BMA error: msstat [hex] dma0 [hex] dma1 [hex] dma2 [hex] qm [hex] plim [hex] fia [hex] l3 [hex] ms [hex] sdram [hex]`

Explanation   There is an error in the BMA (reg. information).

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
`%LC-3-BMAERRS: [chars] BMA [chars] error [hex]`

Explanation   There is an error in the BMA.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
`%LC-3-BMAERRSS: [chars] BMA [chars] error [hex] [chars] [hex]`

Explanation   There is an error in the BMA.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
`%LC-3-BMAUCODE_GET: [chars] BMA: feature [chars], line card type [chars], could not get [chars] BMA microcode`

Explanation   For the BMA microcode download command, failed to get the given BMA microcode bundled in the image.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message

%LC-3-BMAUCODE_LCTYPE: [chars] BMA: feature [chars], specified linecard
type(s) ([hex]) != current ([hex])

Explanation   For the BMA microcode download command, there was a mismatch between what
was specified in the BMA microcode file and the current type of line card.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical
support representative

Error Message

%LC-3-BMAUCODE_NULL: Null downloaded BMA microcode

Explanation   For the BMA microcode download command, failed to get the given BMA microcode
bundled in the image because it is null.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical
support representative

Error Message

%LC-3-CARVE_BUFHDRS: [chars] BMA: out of SDRAM buffer headers

Explanation   Ran out of available SDRAM buffer headers while attempting to carve buffers. This
could be a cause of SDRAM buffer carve failure.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical
support representative

Error Message

%LC-3-CARVE_BUFSIZE: [chars] BMA: illegal specified/real SDRAM buffer
size(s) = ([unsigned long], [unsigned long]). Range=([dec], [dec])

Explanation   The calculated SDRAM buffer size (in bytes and including header and data portions)
is not within the given range. This could be a cause of SDRAM buffer carve failure.

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

Error Message

%LC-3-CARVE_EXBUFS: [chars] BMA: [int] SDRAM buffers > max ([int])

Explanation   The maximum number of SDRAM buffer headers is limited to a maximum number,
which has been exceeded. This could be a cause of SDRAM buffer carve failure.

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

Error Message

%LC-3-CARVE_EXFREEQS: [chars] BMA: [int] free queues > max ([int])

Explanation   Number of free queues allowed for SDRAM buffer carving has been exceeded. This
could be a cause of SDRAM buffer carve failure.

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

Error Message
```
%LC-3-CARVE_EXPCT: [chars] BMA: [int] sum SDRAM buffer percentages > 100
```

Explanation   The sum of percentages per SDRAM buffer size has exceeded 100. This could be a cause of SDRAM buffer carve failure.

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

Error Message
```
%LC-3-CARVE_EXSDRAM: [chars] BMA: used SDRAM ([unsigned long long] bytes)
> available for carve ([unsigned long] bytes)
```

Explanation   The calculated sum of SDRAM to be carved is larger than the available SDRAM for carving. This could be a cause of SDRAM buffer carve failure.

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

Error Message
```
%LC-4-CARVE_JVMASK: [chars] BMA: suspect return value [dec] on
quiesce-for-carve
```

Explanation   The BMA quiesce-for-carve algorithm retrieved a bad jump vector mask return value. This could indicate an error in the quiesce.

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

Error Message
```
%LC-3-CARVE_NOFREEQS: [chars] BMA: no more free queues
```

Explanation   There are no more available free queues which can be used for SDRAM buffer carve. This could be a cause of SDRAM buffer carve failure.

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

Error Message
```
%LC-3-CARVE_PARMS: [chars] BMA: >= 1 SDRAM bufmem parameters == 0
```

Explanation   This is an internal parameter error with one or more SDRAM buffer memory parameters: maximum buffer header count or SDRAM sizes (total, not available for carve and available for carve).

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

Error Message

`%LC-3-CARVE_QELEM: [chars] BMA: [int] Queue Manager SRAM elements > max ([int])`

Explanation   Ran out of Queue Manager elements, which are used for SDRAM buffer carving. This could be a cause of SDRAM buffer carve failure.

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

Error Message

`%LC-3-CARVE_QMREAD: BMA address [hex]: Queue Manager SRAM [hex], read error(s)`

Explanation   This happened during Queue Manager SRAM initialization. Reading one or more zeroed Queue Manager SRAM locations gave a non-zero result. Possible errors are in head, tail, length, length threshold, buffer address, next queue element, or scratch RAM locations.

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

Error Message

`%LC-4-CARVE_TIME: [chars] BMA: quiesce-for-carve exceeded timeout ([dec] ms) in [chars] loop, [dec] times`

Explanation   The BMA quiesce-for-carve algorithm waits an allotted time for line card queues to flush. One or more waits exceeded this allotted time. These queues are specific to the line card's ASICs. This error message might not actually indicate an error–the allotted time might not be sufficient and should be increased.

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

Error Message

`%LC-3-DOWNREV: BMA is an old version.`

Explanation   The system software detected an old version of the BMA.

Recommended Action   Call your technical support for an upgraded version.

Error Message

`%LC-3-INIT_CARD_TYPE: Unknown card type (0x[hex])`

Explanation   A card was either manufactured improperly, has failed, or is newer than the software.

Recommended Action   Replace the card or upgrade the software.

Error Message

`%LC-3-INIT_MEM: Memory failure, addr [hex], read [hex][hex], not [hex][hex]`

Explanation   Initialization of the memory address failed.

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

Error Message
```
%LC-3-INIT_READ: Error reading memory at 0x[hex]
```

Explanation   Failed to read the given memory location.

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

Error Message
```
%LC-3-INIT_RESET: Failed to take line card out of reset
```

Explanation   Initialization of the line card I/O registers failed.

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

Error Message
```
%LC-3-INIT_ZERO: No bytes to write to location 0x[hex]
```

Explanation   No bytes were written to the given location.

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

Error Message
```
%LC-3-INVQ: Invalid local output queue: [hex] [hex] [hex] [hex] [hex]
[hex], MSGDEF_LIMIT_MEDIUM
```

Explanation   The above packet was routed to an invalid queue. The data shown is the packet header.

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

Error Message
```
%LC-3-L3FEERR: L3FE error: rxbma [hex] addr [hex]bma [hex] addr [hex] dram
[hex] addr [hex] io [hex] addr [hex]
```

Explanation   There was an error in the line card's L3FE ASIC (reg. information).

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
```
%LC-3-L3FEERRS: L3FE [chars] error [hex] address [hex]
```

Explanation   There was an error in the line card's L3FE ASIC.

Recommended Action   Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
%LC-3-SELECTOR: [dec]: unknown BMA selector value

Explanation An unknown BMA selector value was encountered.

Recommended Action Copy the error message exactly as it appears, and report it to your technical support representative

Error Message
%LC-1-TESTALERT: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-2-TESTCRIT: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-7-TESTDEBUG: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-0-TESTEMERG: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-3-TESTERR: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-6-TESTINFO: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
%LC-5-TESTNOTICE: [chars]

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
```
%LC-4-TESTWARNING: [chars]
```

Explanation Test message for software test.

Recommended Action Stop typing line card test logger.

Error Message
```
%LCCEF-3-MACSTR: adjacency ([chars]) has incorrect high word (0x[hex]) in
its mac string, MSGDEF_LIMIT_MEDIUM
```

Explanation The line card CEF received an adjacency with the incorrect MAC rewrite string. Packets forwarded to that adjacency will be dropped.

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

Error Message
```
%LCCEF-3-OUTINFO: adjacency ([chars]) has incorrect output_info (0x[hex])
field, MSGDEF_LIMIT_MEDIUM
```

Explanation The line card CEF received an adjacency with the incorrect output_info field. Packets forwarded to that adjacency will be dropped.

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

Error Message
```
%LCCOREDUMP-3-BADCLOSE: Can't close slave core socket for slot [dec]
```

Explanation The system just finished dumping a core file from a line card. It tried to close this file on the remote system and failed.

Recommended Action Debug network connections and user privileges.

Error Message
```
%LCCOREDUMP-3-BADOPEN: Can't open slave core socket for slot [dec]
```

Explanation The system wants to dump a core file to a remote system, but it is unable to open the remote file.

Recommended Action Check to make sure the remote system is accessible and the protocol is set up correctly.

Error Message
```
%LCCOREDUMP-3-BADWRITE: Can't write [chars] to slave core socket for slot
[dec], MSGDEF_LIMIT_MEDIUM
```

Explanation The system is trying to write a core dump file to a remote system. The file was opened, and an error occurred during a write operation to the file.

Recommended Action Check network and disk space available.

Error Message

%LCCOREDUMP-2-EOM: Cannot allocation memory for [chars]
, MSGDEF_LIMIT_MEDIUM

Explanation   The system cannot allocate memory for the coredump subsystem.

Recommended Action   Add more memory.

Error Message

%LCCOREDUMP-3-ILLNVGEN: Illegal call to bflc_cfg_coredump_nvgen

Explanation   The NVGEN routine was called, but NVGEN was not set.

Recommended Action   Gather information about the processes running on this GSR and the traceback and file a DDTs bug report.

Error Message

%LCCOREDUMP-3-ILLPAK: Coredump packet received from slot [dec] (not in dump
state)
 0x[hex] 0x[hex] 0x[hex] 0x[hex]
0x[hex] 0x[hex] 0x[hex] 0x[hex]
 0x[hex] 0x[hex] 0x[hex] 0x[hex]
0x[hex] 0x[hex] 0x[hex] 0x[hex], MSGDEF_LIMIT_MEDIUM

Explanation   A core dump packet from a line card that should not be dumping core arrived at the GRP.

Recommended Action   Gather information about the state of line cards and file a DDTs bug report.

Error Message

%LCCOREDUMP-3-ILLTD: Testdump only valid on line cards (not allowed on RPs)

Explanation   You cannot run a line card core dump test for an GRP.

Recommended Action   Do not do this.

Error Message

%LCCOREDUMP-6-LERP: Cannot configure linecard exceptions for [chars] RP

Explanation   The exception line card commands can only be used to configure exceptions on a line card. GRP are not allowed.

Recommended Action   Use the **exception** command without line card to configure GRP core dumps.

Error Message

%LCCOREDUMP-3-NOMCP: Cannot malloc memory for mbus core dump message to
slot [dec], MSGDEF_LIMIT_MEDIUM

Explanation   The system is trying to write a core dump file to a remote system. It could not allocate memory to create the message to send to start the dump on the line card.

Recommended Action   Add memory.

Error Message

`%LCCOREDUMP-4-NOMDD: [chars] core dump for slot [dec] (Cannot modify during dump)`

Explanation   The system is currently dumping a core file for this line card. You cannot modify core dump configuration during a dump.

Recommended Action   Wait for the core dump to finish.

Error Message

`%LCCOREDUMP-3-NOPAK: No packet on queue (0x[hex] [dec]), MSGDEF_LIMIT_MEDIUM`

Explanation   A core dump packet from a line card that should not be dumping core arrived at the GRP.

Recommended Action   Gather information about the state of line cards and file a DDTs bug report.

Error Message

`%LCCOREDUMP-3-NOPROC: Unable to create data handler process`

Explanation   The system wants to write a core dump file to a remote system but it is unable to start a process to dump the file.

Recommended Action   Gather information about the number of processes running and amount of memory in the system and file a DDTs bug report.

Error Message

`%LCCOREDUMP-3-NOQUEUE: Cannot create queue to receive dump packets for slot [dec]`

Explanation   The system is trying to write a core dump file to a remote system. It could not create a queue to hold dump data coming from the line cards.

Recommended Action   Add memory.

Error Message

`%LCCOREDUMP-4-TIMEOUT: [chars] (0x[hex] [dec])`

Explanation   The system is trying to write a core dump file, but the GRP timed out waiting for data from the line card.

Recommended Action   Gather information about the line card and file a DDTs bug report.

Error Message

`%LCINFO-3-CRASH: Line card in slot [int] crashed`

Explanation   The line card in the slot indicated crashed and sent a CRASH_START message to the GRP. The GRP is now waiting for the rest of the crash information from the line card to be sent via the MBus (stack trace, context, version, etc.). This should happen in a few milliseconds after receiving the CRASH_START message. The GRP software has not otherwise been notified of the line card crash—that will happen after all the crash information has been sent to the GRP. In the

unlikely event that the subsequent crash information messages are not received by the GRP within a reasonable time limit (perhaps 10 secs), the GRP will print a TIMEOUT error message indicating that and tell the rest of the GRP software that the line card has crashed.

Recommended Action   Report this defect with as much information about the line card in question including the output of show context summary, show context slot N and show tech-support N as well as the usual show tech-support from the GRP.

Error Message
%LCINFO-3-INVDEV: Invalid line card number in MBUS callback (LC=[int])

Explanation   The line card crash information subsystem on the GRP 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 GRP—it ignores the bad callback and continues. 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 GRP MBus module.

Error Message
%LCINFO-3-INVSTATE: Line card crash server in bad state (LC=[int], state=[int]), MSGDEF_LIMIT_MEDIUM

Explanation   The line card crash information subsystem for the line card indicated 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 line card crash information subsystem possible.

Error Message
%LCINFO-3-NOBUF: Could not malloc line card crash structures on RP (size=[int])

Explanation   The GRP could not malloc data structures for line card crash data structures at startup time. This is not in and of itself a serious problem, but the underlying memory shortage at startup time will probably prevent the router from running well if at all.

Recommended Action   Add more memory and/or debug the memory shortage problem.

Error Message
%LCINFO-3-NOBUFLC: Could not malloc line card crash info buffer on RP (LC=[int], bufnum=[int], size=[int]), MSGDEF_LIMIT_MEDIUM

Explanation   The GRP could not malloc one or more buffers to hold line card crash information at startup time. This is not in and of itself a serious problem, but the underlying memory shortage at startup time will probably prevent the router from running well if at all.

Recommended Action   Add more memory and/or debug the memory shortage problem. Possibly reduce the size of or the number of crash information buffers allocated per line card to hold crash information—as of this writing it is not known if either the size or number will be configurable.

Error Message
%LCINFO-3-NOPROCESS: Failed creating line card complete process

Explanation When creating the crash complete process for the crash information subsystem the create_process call failed. This should not happen. It is probably due to a software defect or hardware failure. This failure should only happen during initialization.

Recommended Action Rebooting the system should fix this. If the condition persists on subsequent reloads of the system, file a DDTs bug report and the reload the system with a different image.

Error Message
%LCINFO-3-TIMEOUT: Timeout waiting for crash info from slot [int]

Explanation The crash information complete timer expired. When a line card crashes, it sends information to the GRP for debugging and analysis. When the START OF CRASH message is received, a timer is set for approx 10 seconds. The line card has 10 seconds to send all the crash information to the GRP. This is not a crash dump—this is a small amount of information that usually includes context, stack trace, etc. It is less than 8K bytes of information. If an END OF CRASH information message is not received before the timer goes off, the crash information record is closed (contains partial information), this message is displayed, and the rest of the system is notified that the line card crashed (at which point it is probably reloaded). If the line card sends more crash information after the timer goes off and before the system resets the line card, an additional UNXMSG error message might be displayed.

Recommended Action No action is required specifically because this message was displayed. Because the line card was crashing there might be other defects to report. If this message is seen without a line card crashing report this defect with the output of the usual commands including show tech-support on the GRP, on the line card that didn't crash but was mentioned in this error message.

Error Message
%LCINFO-4-TRUNC: Crash record ([int]=[chars]) truncated (expected=[int], actual=[int])

Explanation A line card crashed and was sending crash information to the GRP. The GRP received a CRASH RECORD START message that indicated the data would be "expected" bytes long. Before that many bytes were received, the GRP received another CRASH RECORD START message indicating the start of another record. The current record is marked as truncated, and the next record is received, but the anomaly is noted in this error message. This is a problem, but because what started this process was a line card crashing, this might only be a symptom of another underlying problem.

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

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

Explanation The line card crash information subsystem received an unexpected message for the state it is in. The state and message type are given in the error message. This does not have any adverse effect on the GRP since it ignores and/or recovers from this occurrence. Because the sender of these messages is a line card that is crashing, it is not completely unbelievable that this might

happen. The source of the crash on the line card is more interesting. If this occurs without a line card crashing, it is due to a stray/errant MBus message that should be pursued. This could also be due to a dropped MBus message.

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

Error Message
```
%LCLOG-3-INVDEV: Invalid line card number in MBUS callback (LC=[int])
```

Explanation   The line card crash info subsystem on the GRP 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 GRP— it ignores the bad callback and continues. If the problem is recurring, reboot the router. It is unlikely but possible that the problem is due to bad MBus hardware somewhere in the system—most likely the GRP MBus module.

Error Message
```
%LCLOG-3-INVSTATE: LC logger in bad state (LC=[int], state=[chars],
msg=[chars]), MSGDEF_LIMIT_MEDIUM
```

Explanation   The line card logger subsystem for the line card indicated is not in the state expected for the message it received. This is probably due to a software defect in that subsystem. This could also be due to a dropped MBus message.

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

Error Message
```
%LCLOG-3-MSGGIANT: LC log msg larger than max allowed (LC=[int],
length=[int]), MSGDEF_LIMIT_MEDIUM
```

Explanation   The GRP part of the line card logger server has received a log start message that is larger than the maximum log buffer allows. This is probably due to a software defect.

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

Error Message
```
%LCLOG-3-MSGTOOBIG: LC log msg longer than expected (LC=[int], len=[int],
exp=[int])
```

Explanation   The GRP part of the line card logger server has received more text for a message than the start message indicated. This is probably due to a software defect.

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

Error Message
`%LCLOG-3-OVERFLOW: LC log msg longer than msg buffer (LC=[int], len=[int],`
`max=[int])`

Explanation   The GRP part of the line card logger server has received more text for a message than will fit in the message log buffer. This is probably due to a software defect.

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

Error Message
`%LCPLIM-2-BADIDB: PLIM interface idb incorrect, [hex]`

Explanation   NULL POS line card instance found.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the **execute-on slot** (X) **show controller** commands to gather data to help you determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the **execute-on slot** (X) **show controller** output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
`%LCPLIM-2-BADINTERFACE: Out of range LC interface, [dec] on slot [dec]`

Explanation   The number of interfaces exceeds the max limit for this LC

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the **show version**, **show gsr**, **show diags**, **show interfaces**, **execute-on slot** (X) **show controller**, **execute-on slot** (X) **show subsys** commands to gather data to help you determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show** command display output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
`%LCPLIM-3-UNDEFCMD: Interface [dec]: unsupported [chars] command =0x[hex]`

Explanation   Undefined command received for this interface.

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

Error Message
`%LCPLIM-2-UNDEFPLIM: Undefined PLIM type [dec] in slot [dec]`

Explanation   Undefined GSR card type found.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the **show version**, **show gsr**, **show diags**, **show interfaces**, **execute-on slot** (X) **show subsys** commands to gather data to help you determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show** command display output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%LCPOS-3-BMAENG: [chars] POS, [chars] [chars][chars]. (src=0x[hex],
det1=0x[hex], det2=0x[hex])
```

Explanation   POS BMA engine hardware errors.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%LCPOS-3-BMAPAR: [chars] POS, [chars]. BMA_DATA[3:0]=0x[hex].
(src=0x[hex], det1=0x[hex], det2=0x[hex])
```

Explanation   A parity error occurred on the POS ASIC BMA engine.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%LCPOS-1-INITFAIL: LCPOS([dec]/[dec]), initialization timeout failure
```

Explanation   The line card POS ASIC and framer initialization failed.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. If you cannot determine the nature of the error from the error message text, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
```
%LCPOS-3-LINKBADEVT: Unexpected event woke up LC POS link process.
```

Explanation   The line card POS link report process received an unexpected event.

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

Error Message
```
%LCPOS-3-LINKNOPRC: LCPOS, lcpos_add_process: Unable to create
lcpos_link_report process
```

Explanation   LC POS link report process can not be created.

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

Error Message
%LCPOS-3-LINKPROC: LCPOS, lcpos_link_report process: Could not get argument

Explanation   The line card POS link report process has stopped working.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Issue the **show subsys** and **show memory summary** commands to gather data to help you determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show** command display output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-POSENG: [chars] POS, [chars]. [chars], port [dec]. (src=0x[hex], det1=0x[hex], det2=0x[hex])

Explanation   POS engine hardware errors.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-RXPOSTO: LCPOS([dec]/[dec]), RX POS engine shutdown failed

Explanation   The software is trying to shutdown the Rx POS engine. The POS engine fails to shutdown, so the software timed out.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, issue the execute-on slot (X) show controller pos registers command to gather data that may provide information to determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the execute-on slot (X) show controller pos registers output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-SRAMPAR: [chars] POS, [chars]. [chars]=0x[hex][chars]. (src=0x[hex], det1=0x[hex], det2=0x[hex])

Explanation   Parity error occurred on POS ASIC SRAM

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LCPOS-3-TXPOSTO: LCPOS([dec]/[dec]), TX POS engine shutdown failed

Explanation   The software is trying to shutdown the Tx POS engine. The POS engine fails to shutdown, so the software timed out.

Recommended Action   Copy the error message exactly as it appears on the console or in the system log. Run diagnostics on the line card in slot (X). If diagnostics pass, issue the **execute-on slot (X) show controller pos registers** command to gather data to help you determine the nature of the error. If you cannot determine the nature of the error from the error message text or from the **show** command display output, call your Cisco technical support representative and provide the representative with the gathered information.

Error Message
%LPD-3-MANYLF: Line[t-line], packet has too many newlines to convert

Explanation An internal buffer did not have enough room to add all the necessary carriage returns to a packet of LPD data destined for a printer configured with a newline-convert command. This message is unlikely to occur with a file containing valid data.

Recommended Action Check the file being printed to see if it contains valid, printable data.

Error Message
%MBUS-3-BADCLK: Slot [dec] does not see fabric clock from [chars]
 Card will not operate on fabric using this clock, MSGDEF_LIMIT_MEDIUM

Explanation The slot must see the fabric clock from at least one of the CSC cards. If just one CSC is present, the card must sync to that clock to operate on the fabric. If 2 CSCs are present the following cases are possible. If the CSC were configured to be redundant, the card will function if it can sync to at least one of the clocks. The card will be configured to use that clock in the non redundant mode. If the CSC cards are not redundant (this is not expected to happen unless the CSC is defective), the whole chassis will be configured for one of the 2 CSCs and all the cards must sync to the this (primary) CSC. A card which failed to sync to the selected primary CSC will not operate over the fabric. Note that if 2 CSCs are present, they will be configured as redundant unless the clocks fail to lock. That error message should have been reported earlier in the process.

Recommended Action Verify the card is seated correctly. Try to reset or power cycle the card. Run diagnostics for the card if possible. If the condition persists, copy the error message exactly as it appears, along with previous error messages, and report it to your technical support representative.

Error Message
%MBUS-2-CLKSTATUS: Slot [dec] [chars]

Explanation The slot clock changed its redundancy state. If the card lost its redundancy state, it can still operate with the other clock. This problem may be localized to the line card or may be a global event due to a malfunctioning CSC card. In the latter case, multiple line cards (all) will show this condition.

Recommended Action Verify that the other clock is seen correctly using the s**how controller clock** command.

Error Message
%MBUS-2-CLKSYNC: [chars] could not lock to [chars].
Clocks could not be configured as redundant

Explanation Failed to lock fabric clocks. This implies that the clock/scheduler redundancy cannot be achieved (in this configuration). If this failure occurs during the boot process, the system primary clock will be chosen by a majority rule (i.e., the primary clock will be the clock synched to by the majority of the cards). If this failure occurs during an OIR event, the initial primary clock will be maintained. Cards which do not sync to the selected primary clock will not operate over the fabric. Use the s**how controller clock** command to check the clock configuration for the individual cards.

Recommended Action This is a hardware failure. Replace or reinsert the CSC cards and try again. If the condition persists, copy the error message exactly as it appears along with previous error messages and report it to your technical support representative.

Error Message
```
%MBUS-3-CSCCLK: Fab CLOCK FPGA in Slot [dec] did not see all Fabric Clocks.
FAB_CLK_FPGA_fabClkSts Register = [hex]
 If bit 0 of the register is set implies clk_0 is bad
 if bit 1 of the register is set implies clk_1 is bad
 Fabric Clocks could not be configured as redundant.
```

Explanation   There are two CSC cards in the system but they cannot synchronize to each other; therefore, they are configured as non-redundant.

Recommended Action   Copy the error message exactly as it appears along with any previous error messages and report it to your technical support representative.

Error Message
```
%MBUS-3-CSC_ONLY: Slot [dec] can only have CSC cards
```

Explanation   Slots 16 and 17 can contain only CSC cards.

Recommended Action   Remove non-CSC cards from specified slot. If you are sure it is a CSC card verify that the EEPROM is programmed correctly. Use the show diags details command to read the EEPROM contents and report it to your technical support representative.

Error Message
```
%MBUS-6-CSC_OVER_BKPL: [chars] overriding backplane nvram chassis type
[chars]);
```

Explanation   The CSC card represents a different chassis type than programmed into the chassis backplane NVRAM.

Recommended Action   Contact your technical support representative.

Error Message
```
%MBUS-6-DISCOVERED_CARDS: [dec] [chars] present in 0x[hex] (bitmask)
```

Explanation   This is the list of discovered cards.

Recommended Action   No action is required.

Error Message
```
%MBUS-2-DNLDFAIL: [chars] download to slot [dec]
```

Explanation   The specified image could not be downloaded to the card. The card will be automatically reset and the download retried.

Recommended Action   Reset, power cycle or re-insert the card. If the condition persists, copy the error message exactly as it appears along with any previous error messages and report it to your technical support representative.

Error Message
```
%MBUS-0-DOWNREV: [chars] [dec] [chars]
```

Explanation   The specified module is an old version.

Recommended Action   Obtain the new version from your technical support representative.

Error Message
```
%MBUS-3-EEPROM: Failed read EEPROM location [hex] in slot [dec] [chars],
MSGDEF_LIMIT_MEDIUM
```

Explanation   The software failed to read the EEPROM contents in the specified slot.

Recommended Action   Check other following error messages.

Error Message
```
%MBUS-6-FABCONFIG: Switch Cards 0x[hex] (bitmask)
Primary Clock is [chars]
 Fabric Clock is [chars]
 Bandwidth Mode: [chars]
```

Explanation   The switch fabric is configured as mentioned.

Recommended Action   No action is required.

Error Message
```
%MBUS-0-FABINIT: Failed to initialize switch fabric infrastructure
```

Explanation   Check the previous set of error messages. At least one CSC card must be detected and configured.

Recommended Action   Insert a CSC card. If a CSC card is present verify it is seated correctly and power cycle or reboot the GSR. If the condition persists, copy the error message exactly as it appears along with any previous error messages and report it to your technical support representative.

Error Message
```
%MBUS-6-FIA_CONFIG: Switch Cards 0x[hex] (bit mask Primary Clock [chars]);
```

Explanation   The FIA was configured as specified.

Recommended Action   No action is required.

Error Message
```
%MBUS-6-FIA_STATE: [chars]
```

Explanation   The FIA has been halted.

Recommended Action   No action is required.

Error Message
```
%MBUS-3-GETMSGFAIL:
Failed getting process message from MBUS device [int] -- [chars],
MSGDEF_LIMIT_MEDIUM
```

Explanation   The software sent an MBus message and received a response (or at least the message did not timeout), but when the software requested the message from the scheduler, the software received an error message. This is a software bug.

Recommended Action   Submit a DDTs bug report with as much information as possible including the console output at the time of the error.

Error Message
%MBUS-0-GRP_NO_FRAMESYNC:);

Explanation   The GRP must see frame syncs every 1.04 ms.

Recommended Action   Power cycle the GSR. If the condition persists, contact your technical support representative.

Error Message
%MBUS-6-GRP_STATUS: [chars] [dec] [chars]);

Explanation   GRP master/slave status information.

Recommended Action   No action is required.

Error Message
%MBUS-3-IOSCRASH: Slot [dec]

Explanation   The ROM monitor reports that the Cisco IOS on the line card has crashed.

Recommended Action   The line card is automatically reset by the GRP. If the problem persists, try re-inserting the line card. If the problem persists, run diagnostics on the line card.

Error Message
%MBUS-2-LAUNCHERR: [chars] for Slot [dec] status [hex]

Explanation   The module specified could not be successfully launched.

Recommended Action   Reset line card. If the condition persists, copy the error message exactly as it appears along with any previous error messages and report it to your technical support representative.

Error Message
%MBUS-3-MISMATCHED_FABCONF: Master GRP Fabric Config: Switch Cards [hex]
Master Clock [hex]
 Line Card [dec] Fabric Config: Switch Cards [hex] Master Clock [hex]
, MSGDEF_LIMIT_MEDIUM

Explanation   The fabric configurations for the cards are assigned by the master GRP. The configurations may be temporarily different during reconfiguration of fabric (insertion/removal/ malfunction of switch fabric cards) for example, the GRP has changed its configuration but has not yet notified the line card. A line card may modify its FIA config without changing its bandwidth mode. In addition, it is permissible for the line card to have a different primary clock if two CSCs are configured as redundant.

Recommended Action   No action is required.

Error Message
%MBUS-6-MODEL_INVALID: Chassis Model invalid [dec] (CSC
types(0x[hex][hex]) invalid for overide)
);

Explanation   The model type programmed into the backplane NVRAM was invalid. The CSCs in the chassis also contained invalid types.

Recommended Action   Contact your technical support representative.

Error Message
```
%MBUS-3-MSGTOOBIG:
MBUS message length too big (dev=[int], type=[int], len=[int]),
MSGDEF_LIMIT_MEDIUM
```

Explanation   The software called send_mbus_msg with a length greater than 254. This is a software defect.

Recommended Action   Submit a DDTs bug report with as much information as possible including the console output at the time of the error.

Error Message
```
%MBUS-0-NOCARDS: No Cards detected in slots 1 - [dec]
```

Explanation   At least the GRP must be discovered via the MBus.

Recommended Action   Power cycle the GSR and retry.

Error Message
```
%MBUS-0-NOCSC: [chars]
```

Explanation   At least one CSC card must be present in the system.

Recommended Action   Check or insert a CSC card in slot 16 or 17 and reboot the system.

Error Message
```
%MBUS-0-NOFABCARD: There must at least be a CSC card in slot 16 or 17.
```

Explanation   No fabric card was detected in the system.

Recommended Action   Check or insert a CSC card in slot 16 or 17 and reboot the system.

Error Message
```
%MBUS-3-NOFABCLK: Slot [dec] does not see any fabric clock
 Card will not operate on fabric, MSGDEF_LIMIT_MEDIUM
```

Explanation   The slot must see the fabric clock from at least one of the CSC cards.

Recommended Action   Reset, power cycle, or reinsert the card. If the error persists, copy the error message exactly as it appears along with any previous error messages and report it to your technical support representative.

Error Message
```
%MBUS-0-NOIMAGE: [chars]
```

Explanation   The image was missing in the bundle linked with this Cisco IOS software image. The image is required for downloading. This usually represents a build problem.

Recommended Action   Contact your technical support representative.

Error Message
%MBUS-3-NOPROCESS: Failed creating User LED Process);

Explanation   The call to process_create failed when creating the process used to handle the timers for the user commands that write to the LEDs. The only effect of this failure is that the user commands to write LED messages will not work, but there are much more serious problems if the Cisco IOS software is having trouble creating processes during initialization.

Recommended Action   Reboot router. If condition persists and is isolated to just this process, ignore the problem and continue.

Error Message
%MBUS-6-OIR: [chars] [chars] [dec]

Explanation   An insertion or removal event was detected as specified in the message.

Recommended Action   No action is required.

Error Message
%MBUS-3-READREG: Failed to read register [hex] in slot [dec] [chars], MSGDEF_LIMIT_MEDIUM

Explanation   The software failed to read the register in the specified slot.

Recommended Action   Check other following error messages.

Error Message
%MBUS-5-REBOOT: [chars] [dec] [chars]

Explanation   The line card is being reset because it was not downloaded or configured by this GRP. This means we will not support going from a headless state to a connected GRP initially. Long term, the GRP must be able to sync up with the line card state and act accordingly. That will avoid the reset of the entire chassis on every boot of the GRP. This condition will also happen when GRP is booted with a newer (potentially incompatible) version of Cisco IOS software. The line card will be reset and a compatible image downloaded.

Recommended Action   Avoid rebooting the GRP when the line cards are configured and running - unless it is OK to reset the line card.

Error Message
%MBUS-3-REGISTER: Status change from unknown register [hex] in slot [dec] Value = [hex]

Explanation   A register that was not being monitored has indicated a status change. This is probably a software error.

Recommended Action   If the condition persists, contact your technical support representative.

Error Message

```
%MBUS-0-REGISTRY: Failed to create registry [chars]
[chars]
```

Explanation The specified registry could not be created. This is a catastrophic error for this feature and requires developer intervention for a solution.

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

Error Message

```
%MBUS-0-SELFDISCOVER: Unknown GRP slot number. Power cycle the GSR and
retry
```

Explanation At least the local GRP must be discovered via the MBus.

Recommended Action Power cycle the GSR and retry.

Error Message

```
%MBUS-3-SFC_ONLY: Slot [dec] can only have SFC cards
```

Explanation Slots 18 to 20 can contain only SFC cards.

Recommended Action Remove non-SFC cards from specified slot. If you are sure it is a SFC card verify that the EEPROM is programmed correctly. Use the show diags details command to read the EEPROM contents, and report it to your technical support representative.

Error Message

```
%MBUS-3-SFLOCK: CSC in Slot [dec] failed to phase lock CSC_FPGA_MCLK = [hex]
 bit 5 of the register is set
 Fabric Clocks could not be configured as redundant
```

Explanation The above CSC card was to be designated as the secondary clock. It failed to phase lock with the primary clock. They are therefore not configured in the redundant mode.

Recommended Action Copy the error message exactly as it appears along with previous error messages and report it to your technical support representative.

Error Message

```
%MBUS-6-SWITCHED_FABCLK: Slot [dec] switched to [chars]
```

Explanation The selected clock has changed on the card. If the slot was configured with redundant clock, then this is the new clock for this card. It should continue functioning in nonredundant mode. If the redundancy mode is maintained, the clock should not switch (unless there is external user specification or command forcing it to do so).

Recommended Action No action is required.

Error Message
```
%MBUS-3-TIMEOUT:
Timed out waiting for MBUS response from device [int] -- [chars],
MSGDEF_LIMIT_MEDIUM
```

Explanation   The software sent an MBus message and timed out waiting for a response. This could be due to many possible problems—hardware or software. As usual software is more suspect. There are several different pieces of hardware that could cause this problem (MBus module on the GRP or the slot it was sending the message to, GRP, etc.

Recommended Action   For an occasional problem, just ignore the message. For a persistent problem or one involving lots of timeouts, send e-mail to the appropriate cs-? mailing list. If the problem is always associated with a single slot or MBus device, replace the MBus module and/or the whole FRU (line card, or power supply or whatever). If the problem is associated with many different slots or MBus devices, replace the GRP MBus module and/or the whole GRP. If replacing hardware does not solve the problem, submit a DDTs bug report with as much information as possible including the console output at the time of the error.

Error Message
```
%MBUS-6-UNUSED_SFC: In slot [dec]
```

Explanation   The mode set does not need the specified SFC. They are ignored for the configuration. Removing them will make no difference to system performance.

Recommended Action   Verify that this is indeed the case, in other words, the bandwidth mode of the fabric is the expected bandwidth. No action is usually required.

Error Message
```
%MBUS-3-WAKEUP:
Could not set wake up reason (pid=[int]) -- [chars], MSGDEF_LIMIT_MEDIUM
```

Explanation   When sending an MBus message and waiting for a response, the process wake up reason is changed while waiting for the response. There was an error getting the current wake up reason for the process. This is due to some error in the scheduler or some other software bug in the MBus code.

Recommended Action   For any occurrence of this problem, open a DDTs bug report and include the exact message and the trace back that accompanies it. If the problem is persistent or happens frequently, reloading the router might make the problem go away.

Error Message
```
%MBUS_SYS-3-ENQUEUE: Failed to queue message from slot [dec] stream [dec],
MSGDEF_LIMIT_MEDIUM
```

Explanation   Failed to enqueue a message from the interrupt for process level software. The message will be dropped. This points to a potential problem in the MBus process level message handling. This can occur if there are problems with the MBus process specifically or there maybe general Cisco IOS software process related issues. This might also happen if the MBus process is not scheduled for extended periods of time and there is heavy MBus traffic.

Recommended Action   If this is a persistent problem, either the MBus process is dead or there are other Cisco IOS software related problems. Reboot the GRP if possible.

Error Message

`%MBUS_SYS-3-MAXSIZE: Message from slot [dec] stream [dec] of length [dec] > max message size [dec]`

Explanation Message from a slot exceeded maximum message size and hence will be dropped. This should not happen during normal operations.

Recommended Action Verify health of the MBus using **show mbus counters** and the **show mbus can-error** commands. If any particular card shows errors and this condition persists, reload the card if possible. The error counts in the **show mbus** commands can be cleared using **clear mbus-statistics** command.

Error Message

`%MBUS_SYS-3-MSGTOOBIG: MBUS message length too big (dev=[int], type=[int], len=[int]), MSGDEF_LIMIT_MEDIUM`

Explanation The software tried to send a message with a length greater than 254.

Recommended Action Submit a DDTs bug report with as much information as possible including the console output at the time of the error.

Error Message

`%MBUS_SYS-3-NOBUFFER: Message from slot [dec] in stream [dec] dropped, MSGDEF_LIMIT_MEDIUM`

Explanation Message from the slot was dropped because there were no MBus buffers available. Either the messages are coming too fast or the process level message handling is not draining messages quickly enough.

Recommended Action This condition should correct itself. Check if the GRP is being inundated by messages from the chassis. If the condition persists, reboot the GRP.

Error Message

`%MBUS_SYS-3-NOCHANNEL: Failed to allocate MBUS channel for over 10 secs, MSGDEF_LIMIT_MEDIUM`

Explanation No MBus channel could be allocated for sending messages. There is either very heavy MBus traffic or there is a hardware problem. If there is temporary heavy traffic, the condition will clear itself. In case of hardware errors, either the MBus agent has died or the hardware interface to the mailbox is not draining messages. Resetting the processor (including agent) may clear the problem. If the problem persists, the card probably has hardware problems and needs diagnosis.

Recommended Action Power cycle the card. If problem persists the card probably has a hardware problem.

Error Message

`%MBUS_SYS-3-REASSEMBLY: Error slot [dec], stream [dec] [chars], MSGDEF_LIMIT_MEDIUM`

Explanation A reassembly error was detected for the given slot/stream combination. Either the slot/stream combination was incorrect (so it gave an invalid reassembly buffer index) or the first/last (or last few) packet(s) was/were lost. The message will be dropped, which may cause errors for the application running over the MBus.

Recommended Action This condition should correct itself. No action is required.

Error Message
```
%MBUS_SYS-0-REGISTRY: Failed to create registry [chars]
[chars]
```

Explanation   The specified registry could not be created. This is a catastrophic error for this feature. This needs a developer's intervention for a solution.

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

Error Message
```
%MBUS_SYS-3-SEQUENCE: Sequencing error (slot [dec], stream [dec]): expected
[dec], received [dec], MSGDEF_LIMIT_MEDIUM
```

Explanation   An incorrect sequence number was detected in a multi packet message. This could happen if the source packetized the message incorrectly (unlikely) or one or more packets got dropped.

Recommended Action   Check if there is excessive MBus activity, copious printing from a line card etc. The **show mbus counters** command can provide a lost message count.

Error Message
```
%MBUS_SYS-3-TIMEOUT: Timeout on mbus request. Dest = [int], type = [int],
addr = 0x[hex], MSGDEF_LIMIT_MEDIUM
```

Explanation   The software failed to receive a response from a MBus request. This could be either a request for a EEPROM field or a register read.

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

Error Message
```
%MBUS_SYS-3-TXERR: Failed to transmit MBUS message for over 10 secs,
MSGDEF_LIMIT_MEDIUM
```

Explanation   Message could not be transmitted since all the transmit buffers are full for ever 10 seconds. This may be a temporary problem if there is heavy MBus traffic. Otherwise it is probably a hardware problem. Either the MBus agent is not responding or the hardware interface is not generating interrupts.

Recommended Action   If this is a persistent problem power cycle the card. If the problem still continues, it is likely to be a hardware problem and needs diagnosis.

Error Message
```
%MBUS_SYS-3-UNEXPECTED: Unexpected response key = [int], current key =
[int], MSGDEF_LIMIT_MEDIUM
```

Explanation   Received an unexpected response to a read register or read EEPROM.

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

Error Message

`%PAD-3-GETLINE: Tty[t-line], bad return code [dec] from x3_getline()`

Explanation   An internal software error occurred.

Recommended Action   If any of these messages recur, copy the error message exactly as it appears and report it to your technical support representative.

Error Message

`%PAD-2-PUTSETUP: Tty[t-line], buffer already setup`

Explanation   An internal software error occurred.

Recommended Action   If any of these messages recur, copy the error message exactly as it appears and report it to your technical support representative.

Error Message

`%PARSER-4-INVLDLINE: Invalid line in NV generation:[t-line]`

Explanation   The parser failed an internal software check.

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

Error Message

`%RADIUS-3-ALLDEADSERVER: No active radius servers found.`

Explanation   All radius servers were found to be unresponsive.

Recommended Action   Check the network connectivity to the radius servers, and check that the servers are running.

Error Message

`%RADIUS-6-SERVERALIVE: Radius server [int] is responding again (previously dead).`

Explanation   A radius server, which previously was dead, has started responding again.

Recommended Action   No action required.

Error Message

`%SYS-2-BADPID: Bad pid [dec] for tty[t-line]`

Explanation   An internal software error occurred.

Recommended Action   If any of these messages recur, call your technical support representative for assistance.

Error Message

`%SYS-2-CHUNKBADREFCOUNT: Bad refcount number in chunk header, chunk [hex]`
`data [hex] refcount [hex], 10 * ONESEC`

Explanation   A software error occurred.

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

Error Message

`%SYS-3-OVFPRINT: Overflow in [chars], chars [dec], buffer size [dec],`
`10*ONESEC`

Explanation   A software error occurred.

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

Error Message

`%TCP-2-BADREFCNT: Tty[t-line]: Bad refcnt for packet 0x[hex] during`
`retransmit, [chars]:[dec] to [chars]:[dec], state [dec]`

Explanation   An internal software error occurred.

Recommended Action   If this message recurs, copy it down exactly as it appears, and contact your technical support representative for assistance.

Error Message

`%TCP-2-BUFFER: Tty[t-line], buffering bug`

Explanation   An internal software error occurred.

Recommended Action   If either message recurs, call your technical support representative for assistance.

Error Message

`%TCP-2-PUTBYTE: Tty[t-line], tcp_putbyte() with blocking disabled`

Explanation   An internal software error occurred.

Recommended Action   If either message recurs, call your technical support representative for assistance.

Error Message

`%TCP-6-TOOBIG: Tty[t-line], too many bytes of options ([dec])`

Explanation   An internal software error occurred.

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

Error Message

`%UCODE-3-SRCTYPE: Invalid Ucode source type ([dec])`

Explanation   The microcode source type as specified is not supported on the given platform.

Recommended Action   Verify that the proper revisions of code are selected.

Error Message

`%VIP-3-AFOVERFLOW: Ethernet address filter table full`

Explanation   VIP Ethernet-like interface uses an internal MAC address table to filter incoming packets. Once the table is full, additional address entries are rejected. Any incoming packet with destination address not in the table will be ignored.

Recommended Action   The address table is consumed by various protocols, like PIM or HSRP. If too many HSRP is configured for one interface, the entry could be exhausted. The suggested solution would be to distribute some of those HSRP entries to other Ethernet interface.