

PQUICC_ETHERNET Messages

The following are Ethernet MPC860 quad integrated communications controller messages.

Error Message

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

Explanation Insufficient memory exists to allocate the necessary memory pools.

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

Error Message

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

Explanation A fatal transmission error has occurred on the Ethernet line, causing the line to be restarted.

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

PQUICC_FE Messages

The following are Fast Ethernet MPC860 quad integrated communications controller messages.

Error Message

```
%PQUICC_FE-4-BABBLE: PQUICC/FE([dec]/[dec]), Babble error
```

Explanation The transmitter has been on the channel longer than the time it has taken to transmit the largest frame.

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

Error Message

```
%PQUICC_FE-5-COLL: PQUICC/FE([dec]/[dec]), Excessive collisions, TDR=[dec], TRC=[dec].
```

Explanation Ethernet or Fast Ethernet is detecting multiple collisions. This condition can occur under heavy loads.

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

Error Message

%PQUICC_FE-5-EXCESSCOLL: PQUICC/FE([dec]/[dec]), Excessive collision

Explanation Ethernet or Fast Ethernet is detecting multiple collisions. This condition may occur under heavy loads.

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

Error Message

%PQUICC_FE-1-INITFAIL: PQUICC/FE([dec]/[dec]), Init failed, CSR[dec]=[hex]

Explanation The software has failed to initialize or restart an Ethernet or Fast Ethernet interface.

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

Error Message

%PQUICC_FE-1-INITFAILP: PQUICC/FE([dec]/[dec]), Init failed, CSR[dec]=[hex]

Explanation The FEC could not allocate an I/O buffer pool.

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

Error Message

%PQUICC_FE-5-LATECOLL: PQUICC/FE([dec]/[dec]), Late collision

Explanation Late collisions have occurred on the Ethernet or Fast Ethernet interface.

Recommended Action If the interface is Fast Ethernet, verify that both peers are in the same duplex mode. For regular Ethernet, the system should recover. No action is required.

Error Message

%PQUICC_FE-5-LOSTCARR: PQUICC/FE([dec]/[dec]), Lost carrier. Transceiver problem?

Explanation The cable or transceiver is not connected.

Recommended Action Connect the cable or transceiver.

Error Message

%PQUICC_FE-1-MEMERR: PQUICC/FE([dec]/[dec]), Memory error, CSR[dec]=[hex]

Explanation The interface could not access system resources for a long time. This problem may occur under very heavy loads.

Recommended Action The system should recover. No action is required. If the message recurs, call your technical support representative for assistance.

Error Message

%PQUICC_FE-2-NOISL: Interface [chars] does not support ISL

Explanation The interface cannot be configured as an ISL trunk.

Recommended Action Check the configuration.

Error Message

%PQUICC_FE-3-OVERFLO: PQUICC/FE([dec]/[dec]), Receive overflow

Explanation While receiving a frame, the local buffer of the controller chip transmitted insufficient data because data could not be transferred to DRAM fast enough to keep pace with its input rate. Normally, such a problem is temporary, depending on transient peak loads within the system.

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

Error Message

%PQUICC_FE-3-OWNERR: PQUICC/FE([dec]/[dec]), Buffer ownership error, pak=[hex]

Explanation The software has detected an error in descriptor ownership.

Recommended Action If possible, try using a later version of Cisco IOS software. If this message recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%PQUICC_FE-1-SHOWFAIL: PQUICC/FE([dec]/[dec]), Memory error, CSR[dec]=[hex]

Explanation The FEC could not allocate sufficient memory to display the controller.

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

Error Message

%PQUICC_FE-3-UNDERFLO: PQUICC/FE([dec]/[dec]), Transmit underflow

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

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

PQUICC_SERIAL Messages

The following are serial MPC860 quad integrated communications controller messages.

Error Message

%PQUICC_SERIAL-3-CTSLOST: Unit [dec], Clear to Send Lost

Explanation The CTS input signal on a DTE serial interface became inactive while transmitting a frame. This problem is caused by either a communication line failure or a cable disconnection.

Recommended Action Check the serial interface cable and the communication equipment such as the CSU/DSU.

Error Message

%PQUICC_SERIAL-1-INITFAIL: Unit [dec], initialization timeout failure,
csr[dec]=[hex]

Explanation The serial interface controller of the MPC860 quad integrated communications controller chip could not be initialized or started for operation. This error usually indicates a hardware problem.

Recommended Action Power-cycle the system. If the error recurs, replace the serial interface controller.

Error Message

%PQUICC_SERIAL-5-LINEFLAP: Unit [dec], excessive modem control changes

Explanation The system has received too many modem control signal interrupts. Modem control signals are hardware handshake signals between DTE and DCE. The signals include either a DCD or a DSR, or both a DCD and a DSR.

Recommended Action Check the serial interface cable. This error can occur if the cable is disconnected or has come loose and is picking up noise. If the cable appears to be correctly connected, check the equipment that is connected to the cable.

Error Message

`%PQUICC_SERIAL-5-LOSTCARR: Unit [dec], carrier detect signal lost during message reception`

Explanation The DCD signal was deasserted during message reception. The DCE equipment is responsible for asserting this signal.

Recommended Action Check the serial interface cable. This error can occur if the cable is disconnected.

Error Message

`%PQUICC_SERIAL-3-OVERFLO: Unit [dec], overflow error`

Explanation While receiving a frame, the FIFO method of the controller chip encountered overflow. Normally, such a problem is temporary, depending on receive peak loads within the system.

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates a hardware error that might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

`%PQUICC_SERIAL-3-UNDERFLO: Unit [dec], underflow error`

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

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates a hardware error that might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

PS Messages

The following are power supply messages.

Error Message

`%PS-3-48VPSFAIL: System detected 48V Power System [dec] FAIL condition.`

Explanation The power system has experienced a failure. This messages indicates a failure of the 48V Power Supply. This condition could be caused by an input fail, output fail or fan fail.

Recommended Action Replace the power supply.

Error Message

%PS-3-DCOUTPUTVOLTFAIL: System detected Power System [dec] DC FAIL condition.

Explanation The power system has experienced a DC failure. One of the DC outputs has failed on the power supply.

Recommended Action Identify which DC output has failed. When there is a DC failure, you must replace the power supply.

Error Message

%PS-3-DCOUTPUTVOLTOK: Power System DC condition is now normal

Explanation The power system DC is normal.

Recommended Action This is an informational message only. No action is required.

Error Message

%PS-3-FANFAIL: System detected [chars]Power System FAN FAIL condition.

Explanation The power system has experienced a fan failure condition. One of the fans has failed.

Recommended Action Replace the power supply.

Error Message

%PS-3-FANOK: [chars]Power System FAN condition is now normal.

Explanation The power system fan is now normal. The power supply previously detected a fan failure condition that has now been cleared.

Recommended Action No action is required.

Error Message

%PS-1-INITSYS: [chars]

Explanation An attempt to create an environmental monitor process has failed. The amount of memory available in the router might not be sufficient.

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

Error Message

%PS-3-INPUTVOLTFAIL: System detected Power System [dec] AC FAIL condition.

Explanation The power system has experienced an AC failure. One of the AC inputs on the power supply has failed.

Recommended Action Identify which AC input has failed. Ensure that the AC circuit in your building is operational. Verify that the power cord is plugged into the power supply and ensure that the AC power switch on the power supply is on.

Error Message

%PS-3-INPUTVOLTOK: Power System AC condition is now normal

Explanation The power system AC is normal.

Recommended Action This is an informational message only. No action is required.

Error Message

%PS-3-MULTFAIL: There is more than one failure with the Power System [dec]; please resolve problems immediately

Explanation The power system has experienced multiple failures. This is a critical condition.

Recommended Action Examine the LEDs on the front panel of the power supply to identify and resolve the problems causing the failures.

Error Message

%PS-3-OVERTEMP_OK: System temperature is now normal.

Explanation The system is operating at a normal temperature.

Recommended Action The system is now operating at a normal temperature. The system previously detected a too-high temperature condition that has now cleared. This condition was most likely caused by a high ambient temperature in the area in which the router is located.

Error Message

%PS-3-OVERVOLT: [chars]Power System detected OVERVOLTAGE condition.

Explanation The power system has detected an over-voltage condition.

Recommended Action Ensure that the system does not receive voltage that exceeds the maximum voltage rating.

Error Message

%PS-3-PSOK: Power System is now normal

Explanation The power system is operating normally.

Recommended Action This is an informational message only. No action is required.

Error Message

%PS-3-THERMAL: System detected Power System [dec] THERMAL FAIL condition.

Explanation The system has detected a too-high temperature condition that is probably caused by a high ambient temperature in the area in which the router is located.

Recommended Action Ensure that the temperature is normal in the area where the router is located and resolve any conditions that are causing a temperature increase.

Error Message

%PS-3-THERMOK: Power System THERMAL condition is now normal.

Explanation The power system thermal condition is now normal. The power supply previously detected a too-high temperature condition that has now cleared. This condition was most likely caused by a high ambient temperature in the area in which the power supply is located. A power system thermal condition can also be caused by a fan failure in the power supply.

Recommended Action No action is required.

Error Message

%PS-3-VOLTOK: [chars]Power System VOLTAGE is now normal.

Explanation The power system voltage is now normal. The power system previously detected an over-voltage condition that has now been cleared.

Recommended Action No action is required.

PV Messages

The following are private VLAN messages.

Error Message

%PV-6-PV_MSG: [chars] a private vlan mapping, Primary [dec], Secondary [dec]

Explanation A private VLAN has been created or purged.

Recommended Action No action is required.

PW_WATCHER Messages

The following are Portware Watcher messages.

Error Message

`%PW_WATCHER-3-NO_RESPONSE_STARTUP_REQ: Portware Watcher detected a missing modem board startup message for slot [dec]. Resetting the slot`

Explanation The slot did not send a startup message after a given number of retries. The slot may not have sent the startup message if the Portware Watcher feature was not redownloaded with a new image after a router shelf reload and if the port of the NIP_MODEM_MNGR client was not reinitialized correctly and therefore remained closed. This error is not a critical problem, and it should not affect the operation of the router.

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

Error Message

`%PW_WATCHER-6-UNEXPECTED_DOWNLOAD: Portware Watcher detected an unregistered module download in slot [dec] module [dec].`

Explanation The Portware Watcher process was not initialized with the slot and module information to monitor the download. The operation of the module and the operation of the system in general will not be affected.

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

PXF Messages

The following are Parallel Express Forwarding (PXF) messages.

Error Message

`%PXF-2-BADCHKSUM: Bad PXF microcode checksum, expected [dec], got [dec].`

Explanation The checksum evaluated through the microcode does not match the checksum recorded in the header of the specified packet. The software image has probably been corrupted.

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

Error Message

%PXF-2-BADREAD: Read failed for [chars] on PXF [chars].

Explanation A read error on the file has occurred during the microcode image load on the PXF column.

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

Error Message

%PXF-2-DISABLED: PXF [chars] disabled (too many restarts).

Explanation A PXF coprocessor has been restarted too many times during the past 30 seconds, indicating that a recurring error has not been resolved. To reenable the PXF coprocessor, a microcode reload or a router reload should be performed.

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

Error Message

%PXF-2-DOWNLOAD: [chars]: PXF microcode image [chars]: could not be downloaded.

Explanation The PXF microcode could not be downloaded. This condition could be due to an already corrupted image or to a software or hardware problem.

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

Error Message

%PXF-2-DWNLOAD: Could not download the microcode into PXF processor [chars].

Explanation A software or hardware error has prevented microcode from being downloaded to PXF.

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

Error Message

%PXF-6-ECC_SBE: [dec] single-bit errors have been detected, corrected and scrubbed from [chars] column [dec] [chars]

Explanation More than one correctable single-bit ECC errors in PXF memory were detected, captured, corrected, and scrubbed during the last one-hour period. This message is mainly for information purposes because ECC errors are caused by various factors in random fashion. Single-bit ECC errors are automatically detected and corrected by PXF hardware; they have no impact on system performance.

Recommended Action Continue to monitor the router message log for this message. If this message consistently recurs over a period of a few hours, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%PXF-2-EXCEPTION: PXF exception on unit [chars].

Explanation An unexpected, unrecoverable exception has occurred on PXF.

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

Error Message

%PXF-2-FAULT: [chars]

Explanation One or more faults have been detected by the PXF driver.

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

Error Message

%PXF-2-HDRBADTYPE: PXF microcode header contains image for type [dec], need [dec].

Explanation The PXF microcode appears not to match the microcode header type. This condition could be caused by an already corrupted image or a read error on the file during the downloading on the PXF column.

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

Error Message

%PXF-2-HDRCORRUPT: PXF microcode header has been corrupted, expected [hex], got [hex].

Explanation The PXF microcode appears to be corrupted. The microcode corruption could have been caused by an already corrupted image or, less likely, by a software problem.

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

Error Message

%PXF-2-HDRWRONGHW: PXF microcode header contains image for hwrev [dec].[dec], need [dec].[dec].

Explanation The major revisions of PXF hardware and microcode do not match.

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

Error Message

%PXF-2-IMAGE: PXF microcode image [chars]: could not be read.

Explanation The PXF microcode could not be read. This condition could be due to an already corrupted image or, less likely, to a software problem.

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

Error Message

%PXF-2-INCOMPAT: This microcode image is incompatible with this Cisco IOS image.

Explanation The signature in the microcode image does not match the signature in the Cisco IOS software image.

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

Error Message

%PXF-2-INVALID: Corrupted PXF microcode retrieved from the image bundle for [chars]

Explanation The retrieved microcode appears to be corrupted.

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

Error Message

%PXF-2-METADATA: PXF microcode meta-data [chars]: [chars], in file: [chars].

Explanation The PXF microcode appears to be corrupted. This condition could be due to an already corrupted image or, less likely, to a software problem.

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

Error Message

%PXF-2-NONEXIST: Could not open or stat [chars] for PXF [chars].

Explanation The PXF microcode may not be correctly bundled into the image, or a software error may have occurred and prevented the microcode from being located.

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

Error Message

%PXF-2-OPER: PXF not operational: [chars]

Explanation The PXF clients could not be made operational. This condition could be due to a software or hardware problem.

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

Error Message

%PXF-2-RESTARTED: PXF [chars] restarted.

Explanation A PXF coprocessor has been restarted, either manually using a microcode reload or as a result of an exception.

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

Error Message

%PXF-2-ROW: PXF microcode header of image [chars] doesn't match block [chars], row [dec] not row [dec].

Explanation The PXF microcode appears to be corrupted. This condition could be due to an already corrupted image or, less likely, a software problem.

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

Error Message

%PXF-2-START: PXF not started: memory state: [dec], expected [dec].

Explanation The PXF clients could not be started. This condition could be due to a software or hardware problem.

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

Error Message

%PXF-2-TALLOCFAIL: Allocation failed of [dec] bytes on PXF [chars]

Explanation The requested allocation of space in the PXF memory was not possible because of a lack of available memory resources.

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

Error Message

%PXF-2-TDB: Could not find control block for PXF image [chars].

Explanation A software error occurred that prevented the system from locating the control block that represents this PXF.

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

Error Message

%PXF-2-WRONGHARD:: The microcode type does not match, expected [hex] for PXF, got [hex].

Explanation The images may have been corrupted or, less likely, an incorrect microcode set may have been bundled into the image.

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

Error Message

%PXF-2-WRONGIMAGE: The image downloaded to the Router is a mismatch

Explanation The image downloaded to the router is not supported by the hardware. A Cisco IOS software image that matches the hardware must be reloaded.

Recommended Action Load a Cisco IOS software image that matches the router hardware.

PXF_DMA Messages

The following are PXF DMA subsystem messages.

Error Message

%PXF_DMA-3-FBB_LINE_CARD: [chars]

Explanation A PXF DMA FBB Line Card Error has occurred.

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

Error Message

%PXF_DMA-3-FTBB_ERROR: FTBB is set to disable for slot [int]/[int]!

Explanation FTBB is disabled

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

Error Message

%PXF_DMA-3-IRONBUS_NOTRUNNING: Data path to slot [int]/[int] failed to synchronize ([chars])

Explanation PXF DMA data path could not be initialized.

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

Error Message

%PXF_DMA-2-TBB_SYNC_FAILED: TBB sync of the RP failed. No traffic is being sent to the RP!

Explanation TBB sync of RP failed.

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

Error Message

%PXF_DMA-2-TBB_SYNC_LC_FAILED: TBB sync of the line card failed (slot [int]/[int]). No traffic is being through the line card. Need to reset the line card.

Explanation TBB sync of RP failed.

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

QA Messages

The following are queue and accumulator messages.

Error Message

%QA-3-ALLOC: [chars]

Explanation An internal software error has occurred.

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

Error Message

%QA-3-DIAG: [chars]

Explanation This message appears after a QA error and contains diagnostic information regarding that error.

Recommended Action Copy the original QA error message and all the following QA diagnostic messages exactly as they appear. Also copy the output of the **show version** and **show cont cbus** commands. Contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%QA-3-DIAG: NULL

Explanation This message appears after a QA error and contains diagnostic information regarding that error.

Recommended Action Copy the original QA error message and all the following QA diagnostic messages exactly as they appear. Also copy the output of the **show version** and **show cont cbus** commands. Contact your Cisco technical support representative, and provide the representative with the gathered information.

QEM Messages

The following are QEM driver messages.

Error Message

%QEM-3-DISCOVER: Found [chars] switch processors

Explanation The QEM driver either found no switch processors or found more than one. Exactly one is the only supported configuration.

Recommended Action Ensure that there is only one switch processor.

QLLC Messages

The following are QLLC messages.

Error Message

%QLLC-3-BADOPCODE: Opcode [chars] is invalid

Explanation Either RSRB or local acknowledgment is configured incorrectly.

Recommended Action Identify which of these is configured incorrectly and correct the configuration.

Error Message

%QLLC-3-BADQLLCSTATE: Bad qllc state - [chars]

Explanation An invalid QLLC primitive was detected.

Recommended Action Ensure that the partner QLLC device is configured correctly.

Error Message

%QLLC-3-BADRSRBOPCODE: Bad opcode [hex] from [enet] to [enet]

Explanation Either RSRB is configured incorrectly or the other RSRB device is down.

Recommended Action Ensure that RSRB is configured correctly with the correct version of Cisco IOS software.

Error Message

%QLLC-3-BADSTATE: Bad qllc state - [chars] - [enet]

Explanation An invalid QLLC primitive was detected.

Recommended Action Ensure that the Token Ring ports and any participating LAN devices are configured correctly.

Error Message

%QLLC-3-BADSTATEEVENT: Bad qllc state - [chars] event - [chars] macaddr - [enet]

Explanation The specified QLLC primitive has placed the router in an invalid state.

Recommended Action Ensure that the Token Ring ports and any participating LAN devices are configured correctly.

Error Message

%QLLC-3-BAD_XID: Sna configuration error for [enet]: Lan device is PU2.1, X.25 device is PU2.0 (XID Format 1)

Explanation The IBM Gateway (Cisco 3172) or front-end processor on the LAN is sending XID Format 3, which is used to communicate with PU2.1 devices. The X.25 device is a PU2.0 (Cisco 3174) that is configured to send XID Format 1 messages. This is a very rare situation. A likely cause is that the revision levels on the IBM equipment are incompatible.

Recommended Action Check the revision levels on the external equipment, and upgrade them if necessary.

Error Message

%QLLC-3-DIFFPRTR: [enet] - Different partner - originally [enet] - now [enet]

Explanation The partner for this QLLC virtual MAC address does not match the MAC address that was defined with the **qlc partner** command.

Recommended Action Ensure that the QLLC partner statement in the configuration file is correct.

Error Message

%QLLC-3-GENERRMSG: [chars]

Explanation The text string provided with this error message describes the specific QLLC problem.

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

Error Message

%QLLC-3-IFRAME: [chars]

Explanation An I-frame was discarded because of network congestion.

Recommended Action Ensure that the LAN is not beaconing and that it is not in a congested state. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%QLLC-3-INCALL_CFG: Incoming call: No QLLC Service Access Point Configured for x.25 subaddress [chars]

Explanation A remote X.25 device that is calling the router for QLLC service is using a subaddress that was not configured by the X.25 routing facility. The subaddress was not configured for QLLC service.

Recommended Action Correct the QLLC configuration. Configure only the subaddress on the QLLC service, not the complete X.121 address that the remote X.25 device uses.

Error Message

%QLLC-3-INCALL_NO_PARTNER: Incoming call: No partner Mac Address configured - X.25 subaddress [chars]

Explanation There is an incoming call, but a connection cannot be initiated to a partner because no partner is configured in a **qlc dlsw** command.

Recommended Action To configure a partner for the incoming call, enter the **qlc dlsw partner** command.

Error Message

%QLLC-3-LNXNOTFOUND: lnx_remove_macaddr_hash did not find target lnx

Explanation The **qlc srb** command was not defined for this interface.

Recommended Action Add a valid **qlc srb** statement for this serial interface.

Error Message

%QLLC-3-NOLLC2: Unable to open an llc2 session

Explanation An LLC2 session could not be established with the destination MAC address.

Recommended Action Ensure that the **qlc partner** statement in the configuration file is correct and that the partner is on the desired LAN.

Error Message

%QLLC-3-NOMACADDR: No lnx entry for macaddr [enet]

Explanation No virtual MAC address was defined for this interface.

Recommended Action Define the virtual MAC address using either the **x25 map qlc** command or the **x25 pvc qlc** command.

Error Message

%QLLC-3-NOMEM: Not enough memory available

Explanation There is not enough memory in the system to complete the specified request.

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

Error Message

%QLLC-3-NONULLXID: Couldn't make null xid - [enet] -[enet]

Explanation An attempt to create an IEEE XID has failed.

Recommended Action Ensure that the **qlc partner** statement in the configuration file is correct and that the partner is on the desired LAN.

Error Message

%QLLC-3-NOPAKENQ: Pak enqueue failed

Explanation An expected packet was not sent to the LAN.

Recommended Action Ensure that the LAN partner is configured correctly and that the partner is on the desired LAN.

Error Message

%QLLC-4-NOQLLC: Unable to open qlc session, current state is [chars]

Explanation A QLLC session could not be established.

Recommended Action Verify that the **qlc partner** and the **qlc xid** commands are correct.

Error Message

%QLLC-3-NO_QLLCBUFFER: M bit Reassembly failed - couldn't allocate a packet

Explanation The router has run out of memory and cannot allocate buffers.

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

Error Message

%QLLC-3-NO_QSR: No QLLC Service Access Points defined

Explanation No QLLC services have been configured, although the router will accept incoming calls for QLLC.

Recommended Action Configure the QLLC service that is required.

Error Message

%QLLC-3-NO_RESOURCE: Incoming Call: Insufficient resources available

Explanation The router cannot accept incoming calls because of insufficient system memory.

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

Error Message

%QLLC-3-NOXID2: Couldn't make xid - [enet] -[enet]

Explanation The QLLC XID could not be forwarded to the LAN.

Recommended Action Ensure that the **qlc partner** command and the **qlc xid** commands are configured correctly.

Error Message

%QLLC-3-NULLPTR: [chars] ptr is null

Explanation The specified structure has not been configured.

Recommended Action Confirm the configuration commands for the structure.

Error Message

%QLLC-3-PARTNER_MISMATCH: Outgoing call: Partner Mac Address [enet] doesn't match configured partner [enet]

Explanation A device tried to connect to a QLLC VMAC from Token Ring, but the MAC address of that device does not match the partner that was specified in the **qlc dlsw** command.

Recommended Action Correct the QLLC configuration to match the appropriate partner.

Error Message

%QLLC-3-QLLCMAP_ERR: Incoming call: QLLC map entry not found

Explanation A software error has occurred in the router code.

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

QM Messages

The following are Quality of Service (QoS) Manager messages.

Error Message

%QM-2-ACL_FAILURE: Interface [chars] traffic will not comply with ACLs in [chars] direction(s)

Explanation ACLs will not be applied to traffic for the specified interface because of TCAM resource contention.

Recommended Action The configured ACLs are too great in number to fit into the hardware TCAM. Try to share the same ACLs across multiple interfaces in order to reduce TCAM resource contention.

Error Message

%QM-2-AGGREG_FAILURE: Interface [chars] aggregate QoS will not comply with policymap in [chars] direction(s)

Explanation QoS will not be applied to traffic for this interface because of contention for aggregate policer resources.

Recommended Action There are too many configured aggregate policers to fit in the hardware aggregate RAM. Try to share the same aggregate policers across multiple classes or interfaces in order to reduce policer resource contention. Use the named QoS aggregates as a mechanism for sharing policers.

Error Message

%QM-4-AGGREG_PLC_IGNORED: 'police' command ignored in presence of 'police aggregate [chars]'

Explanation If both “police” and “police aggregate” are specified as policy actions for the same class, “police” will be ignored as long as the aggregate has been defined by the **mls qos aggregate** command.

Recommended Action Do not specify both “police” and “police aggregate” in the same class.

Error Message

%QM-2-BAD_MESSAGE: Error in internal messaging - bad result [dec]

Explanation A software error might have affected the programming of ACLs into the TCAM.

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

Error Message

%QM-2-BAD_TLV: Error in internal messaging - bad tlv [dec]

Explanation A software error might have affected the programming of ACLs into the TCAM.

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

Error Message

%QM-2-DSCP_NE: Different aggregate and microflow DSCP in class [chars][policy [chars]]

Explanation Conform actions in the **police** and **police flow** commands must be the same for the same class in a service policy applied to MLS interfaces.

Recommended Action Change the conform action in the **police** and **police flow** commands to make both conform actions the same, or remove one of two commands.

Error Message

```
%QM-3-ERROR: [chars] [chars]:[dec]
```

Explanation A software error has occurred.

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

Error Message

```
%QM-3-ERROR_STAT: [chars] stat:[dec] in [chars]:[dec]
```

Explanation A software error has occurred.

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

Error Message

```
%QM-4-IDB_MODE_CHANGE_SERV_POLICY: Interface [chars] service-policy is not preserved on transition to/from switchport
```

Explanation The service policy applied to the interface before the transition includes features that cannot be applied to the interface after the transition. Because a service policy is applied automatically, none of the features in its policy map are applied after the transition.

Recommended Action After the transition, install a different service policy that includes only applicable features on the interface.

Error Message

```
%QM-2-MICROFLOW_FAILURE: Interface [chars] microflow QoS will not comply with policymap in [chars] direction(s)
```

Explanation QoS will not be applied to traffic for this interface because of a contention for microflow policer resources.

Recommended Action There are too many configured microflow policers to fit in the hardware threshold RAM. Try to specify the same microflow policing parameters (rate and burst) across multiple classes and interfaces in order to reduce the policer resource contention.

Error Message

```
%QM-2-NO_AGGREG_PLC: Hardware aggregate policer resources exceeded
```

Explanation The hardware does not have the capacity to handle all the aggregate policers that are required by the configuration.

Recommended Action Reduce the total number of aggregate policers that are required by all service policies installed in the device. For example, use shared aggregate policers, as defined by the **mls qos aggregate-policer** command, instead of the **per-interface policers default** command.

Error Message

%QM-2-NO_AGGREG_PLC_IF: Out of hardware aggregate policers (policy [chars], class [chars], interface [chars])

Explanation The hardware does not have the capacity to handle the aggregate policers that are required by the service policy class for the specified interface.

Recommended Action Reduce the total number of aggregate policers that are required by all service policies installed in the device. For example, use shared aggregate policers, as defined by **mls qos aggregate-policer** command, instead of the **per-interface policers default** command.

Error Message

%QM-2-NO_FLOW_PLC: Hardware microflow policer resources exceeded

Explanation The hardware does not have the capacity to handle the microflow policers that are required by the policy map.

Recommended Action Adjust the microflow policing rate and burst parameters so that the total number of different rate and burst combinations in the device is reduced.

Error Message

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

Explanation A software error might have affected the programming of ACLs into the TCAM.

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

Error Message

%QM-2-TCAM_BAD_LOU: Bad TCAM LOU operation in ACL

Explanation A software error has caused the programming of ACLs into the TCAM to fail.

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

Error Message

%QM-4-TCAM_CAPMAP: Interface [chars] hardware TCAM LOU usage capability exceeded

Explanation The hardware TCAM does not have the capacity to handle the number of logical operations that are used with the configured ACLs on the specific interface.

Recommended Action The hardware TCAM can handle a maximum of 9 logical operations per interface and up to 64 logical operations in total. Reduce the number of logical operations used in the ACLs.

Error Message

%QM-4-TCAM_ENTRY: Hardware TCAM entry capacity exceeded

Explanation The hardware TCAM does not have the capacity to handle all of the configured ACLs.

Recommended Action There are too many configured ACLs to fit into the hardware TCAM. Try to share the same ACLs across multiple interfaces in order to reduce the TCAM resource contention.

Error Message

%QM-2-TCAM_ERROR: TCAM programming error [dec]

Explanation A software error has caused the programming of ACLs into the TCAM to fail.

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

Error Message

%QM-4-TCAM_LABEL: Hardware TCAM label capacity exceeded

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

Recommended Action The hardware TCAM can handle a maximum of 500 interfaces configured with ACLs. Deconfigure ACLs from some of the interfaces.

Error Message

%QM-4-TCAM_LOU: Hardware TCAM LOU capacity exceeded

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

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

Error Message

```
%QM-2-TCAM_MEMORY: NMP processor memory low
```

Explanation The programming of ACLs into the TCAM has failed because of inadequate memory.

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

QoS Messages

The following are quality of service (QoS) messages.

Error Message

```
%QOS-3-CFGERR: interface [chars]: configuration failed
```

Explanation Not enough memory is available to configure the feature. It is not possible to configure the issued command (feature) unless the required memory is released by some other means.

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

Error Message

```
%QOS-4-INVALIDBW: interface [chars]: Not enough bandwidth to configure service-policy
```

Explanation The allocated interface bandwidth is less than the total bandwidth that is required for QoS policy on this interface.

Recommended Action Reconfigure the service policy for the new allocated bandwidth on the interface, or increase the interface bandwidth to the required value.

Error Message

```
%QOS-3-MAIN_SUB_POLICY: FR fragmentation is not supported with interface or sub-interface based policies \n
```

Explanation On Cisco 7500 series routers, Frame Relay fragmentation is not supported when service policies are configured on the interface or subinterfaces.

Recommended Action Remove the service policy configuration under the interface or subinterfaces and reissue either the **frame-relay class** command from interface configuration mode, or the **frame-relay fragment** command from config-map-class mode.

QUICC Messages

The following are MC68360 quad integrated communications controller messages.

Error Message

```
%QUICC-1-BADHDXFSM: Quicc([dec]/[dec]), Unexpected HDX state [dec], event [dec]
```

Explanation An invalid transmission or reception event has been detected for half duplex.

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

Error Message

```
%QUICC-1-CTSLOST: QUICC([dec]/[dec]), Clear to Send Lost
```

Explanation The CTS input signal on a DTE serial interface became inactive while transmitting a frame. This problem is a result of a communication line failure or cable disconnection.

Recommended Action Check the serial interface cable or communication equipment, such as the CSU/DSU.

Error Message

```
%QUICC-1-INITFAIL: QUICC([dec]/[dec]), SCC[hex] init failed
```

Explanation The software has failed to initialize or restart a 1T serial card.

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

Error Message

```
%QUICC-1-LINEFLAP: Quicc([dec]/[dec]), Excessive modem control changes
```

Explanation The system has received too many modem control signal interrupts. Modem control signals are hardware handshake signals between DTE and DCE. The signals include either a DCD or a DSR, or both DCD and DSR.

Recommended Action Check the serial interface cable. This error can occur if the cable is disconnected or has come loose and is picking up noise. If the cable appears to be correctly connected, check the equipment connected to the cable.

Error Message

%QUICC3-1-LOSTCARR: Unit [dec], lost carrier. Transceiver problem?

Explanation The Ethernet 10BASE-T cable is unplugged.

Recommended Action Reconnect the Ethernet 10BASE-T cable.

Error Message

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

Explanation The MC68360 quad integrated communications controller CPU was unable to access the memory it needs to carry out its functions. Some possible causes are as follows:

- The network is large, requiring a lot of memory for routing tables.
- The router configuration has many features enabled, each of which requires a certain amount of memory.
- A software error (memory leak) exists.

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

Error Message

%QUICC-3-OWNERR: Unit [dec], buffer ownership error, pak = [hex]

Explanation An internal software error has occurred.

Recommended Action Contact your Cisco technical support representative to obtain a Cisco IOS software upgrade.

Error Message

%QUICC-1-TOOBIG: Quicc([dec]/[dec]), packet too big

Explanation A packet greater than the assigned MTU of this serial interface has been queued for transmission.

Recommended Action The system should recover. No action is required. If the message recurs, it may indicate an error related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%QUICC-1-TOOSMALL: Quicc([dec]/[dec]), packet was less than 2 bytes

Explanation A small packet (less than 2 bytes) has been queued for transmission. The interface cannot handle such small packets for transmission.

Recommended Action The system should recover. No action is required. If the message recurs, it may indicate a hardware error related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%QUICC-3-UCODE_REV_UNKN: Unknown microcode revision number: [dec]

Explanation The MC68360 quad integrated communications controller CPU was running an unexpected version of microcode. This situation could occur if a new version of the MC68360 quad integrated communications controller chip were released or if a very old version were used in the manufacturing process of that chip. This situation could also occur if a new version of microcode were released to fix any bugs.

Recommended Action A decrease in performance might occur if there are any asynchronous interfaces running PPP. Contact your Cisco technical support representative if this is an issue.

Error Message

%QUICC-1-UNDERFLO: QUICC([dec]/[dec]), Transmit underflow

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

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

Error Message

%QUICC-1-UNEXPECTED_INTERRUPT: Quicc([dec]), Unexpected modem-signal interrupt

Explanation The software did not expect a modem control signal change on this type of WIC interface.

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

Error Message

%QUICC-3-UNKNOWN_SCCS: Quicc, Incorrect SCC number

Explanation An internal software error has occurred.

Recommended Action Contact your Cisco technical support representative to obtain a software upgrade.

Error Message

%QUICC-1-UNKNOWN_WIC: Quicc([dec]), wic card has an unknown id of [hex]

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

Recommended Action Check the part number on the WIC to verify that it is supported in the Cisco IOS release operational on the router, or contact your Cisco technical support representative.

Error Message

%QUICC-1-UNSUPPORTED_CONFIG: Slot [dec] has an unsupported combination of ISDN WAN interface cards

Explanation The type of BRI card in slot 1 is incompatible with the type of BRI card in slot 0.

Recommended Action Remove the BRI card in one of the slots.

Error Message

%QUICC-1-WRONG_SLOT: Quicc([dec]), BRI card in wrong slot(1)

Explanation The BRI card is not supported in WIC slot 0.

Recommended Action Power down, move the BRI card to the other WIC slot on the port module, and reboot.

QUICC_ASYNC Messages

The following are asynchronous MC68360 quad integrated communications controller messages.

Error Message

%QUICC_ASYNC-3-CTSLOST: Unit [dec], Clear to Send Lost

Explanation The CTS input signal on a DTE serial interface became inactive while sending a frame. This problem is caused by either a communication line failure or a cable disconnection.

Recommended Action Check the serial interface cable and the communication equipment such as the CSU/DSU.

QUICC_ETHER Messages

The following are Ethernet MC68360 quad integrated communications controller messages.

Error Message

%QUICC_ETHER-5-COLL: Unit [dec], excessive collisions. Retry limit [dec] exceeded

Explanation An Ethernet cable is broken or is not terminated.

Recommended Action Check the cables for proper connections and termination.

Error Message

%QUICC_ETHER-5-HBEAT: Unit [dec], heartbeat check failure

Explanation The Ethernet cable might be too long, or there could be too many repeaters, causing the delay from one end to the other to be too long. The Ethernet cable might be overloaded with too many users.

Recommended Action Ensure that your Ethernet cable is the correct length and that you do not have too many repeaters in use. If these conditions are not the problem, try removing hosts from the Ethernet segment to reduce the load.

Error Message

%QUICC_ETHER-1-INITFAIL: Unit [dec], initialization timeout failure,
csr[dec]=[hex]

Explanation A software or hardware error has occurred.

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

Error Message

%QUICC_ETHER-5-LATECOLL: Unit [dec], late collision error

Explanation The Ethernet cable might be too long, or there could be too many repeaters causing the delay from one end to the other to be too long. The Ethernet cable might be overloaded with too many users.

Recommended Action Ensure that your Ethernet cable is the correct length and that you do not have too many repeaters in use. If these conditions are not the problem, try removing hosts from the Ethernet segment to reduce the load.

Error Message

%QUICC_ETHER-1-LOSTCARR: Unit [dec], lost carrier. Transceiver problem?

Explanation The Ethernet 10BASE-T cable is unplugged.

Recommended Action Reconnect the 10BASE-T Ethernet cable.

Error Message

%QUICC_ETHER-3-UNDERFLO: Unit [dec], underflow error

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

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates a hardware error that might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

QUICC_SERIAL Messages

The following are serial MC68360 quad integrated communications controller messages.

Error Message

%QUICC_SERIAL-3-CTSLOST: Unit [dec], Clear to Send Lost

Explanation The CTS input signal on a DTE serial interface became inactive while transmitting a frame. This problem is a result of a communication line failure or cable disconnection.

Recommended Action Check the serial interface cable or communications equipment such as the CSU/DSU.

Error Message

%QUICC_SERIAL-1-INITFAIL: Unit [dec], initialization timeout failure,
csr[dec]=[hex]

Explanation The serial interface controller of the QUICC chip could not be initialized or started for operation. This error probably indicates a hardware problem.

Recommended Action Power-cycle the system. If the error recurs, replace the unit.

Error Message

%QUICC_SERIAL-5-LINEFLAP: Unit [dec], excessive modem control changes

Explanation The system has received too many modem control signal interrupts. Modem control signals are hardware handshake signals between DTE and DCE. The signals include either a DCD or a DSR, or both a DCD and a DSR.

Recommended Action Check the serial interface cable. The error can occur if the cable is disconnected or has come loose and is picking up noise. If the cable appears to be correctly connected, check the equipment connected to the cable.

Error Message

%QUICC_SERIAL-5-LOSTCARR: Unit [dec], carrier detect signal lost during message reception

Explanation The RS-232C DCD signal was deasserted during message reception. The DCE equipment is responsible for asserting this signal. This error can occur if the cable is disconnected.

Recommended Action Ensure that the serial interface cable is connected.

Error Message

%QUICC_SERIAL-3-UNDERFLO: Unit [dec], underflow error

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

Recommended Action The system should recover. No action is required. If the problem recurs, it indicates a hardware error that might be related to data traffic patterns. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

RAC Messages

The following are ring access controller messages.

Error Message

%RAC-3-RACIPL: DHCP is already running on interface [chars]

Explanation The interface already has a DHCP-originated address that was assigned via some other system mechanism.

Recommended Action Verify the system configuration.

Error Message

%RAC-3-RACNOIPL: Can not find lease information for interface [chars]

Explanation DHCP lease information for the interface is missing.

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

Error Message

%RAC-3-RACNOQ: Can't create RAC work queue

Explanation An internal software error has occurred, probably because of insufficient memory resources.

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

RADIO Messages

The following are radio driver messages.

Error Message

%RADIO-4-BAD_IF_PIC: Radio[dec]/0, bad IF PIC version ([dec]) on IDU

Explanation The hardware configuration may be incorrect. An unit that is not running the correct image is likely being used. The system has detected a version mismatch between what the Cisco IOS software had expected and what the PIC device is reporting.

Recommended Action Contact your Cisco technical support representative to confirm that a production Cisco IOS image is running. If not, replace the unit.

Error Message

%RADIO-4-BAD_RF_PIC: Radio[dec]/0, bad RF PIC version ([dec]) on ODU [dec]

Explanation The hardware configuration may be incorrect. An unit that is not running the correct image is likely being used. The system has detected a version mismatch between what the Cisco IOS software had expected and what the PIC device is reporting.

Recommended Action Contact your Cisco technical support representative to confirm that a production Cisco IOS image is running. If not, replace the unit.

Error Message

```
%RADIO-4-CHECKSUM_ERR: Radio[dec]/0, radio phy eeprom "[chars]" checksum  
(stored:[hex], calculated:[hex])
```

Explanation The checksum is failing, possibly because the data in the EEPROM is corrupt. This error may be caused by a hardware malfunction, but it could also be caused by an attempt to use an engineering unit rather than a production unit.

Recommended Action Contact your Cisco technical support representative to replace the unit.

Error Message

```
%RADIO-5-CLEAR_METRICS: Radio[dec]/0, link metrics cleared
```

Explanation The user has requested that the link metrics be cleared.

Recommended Action No action is required.

Error Message

```
%RADIO-5-CONFIG_HW: Radio[dec]/0, hardware does not support requested  
configuration: [chars]
```

Explanation The hardware does not support the requested configuration.

Recommended Action Change the configuration to match the hardware.

Error Message

```
%RADIO-5-CONFIG_MISMAT: Radio[dec]/0, invalid or inconsistent configuration  
requested [chars]
```

Explanation The ARQ settings are not supported by the current radio channel parameters.

Recommended Action Use the **radio arq reset** command to change ARQ settings to allowed values, given the current radio channel parameters.

Error Message

```
%RADIO-4-DSPHPITIMEOUT: Radio[dec]/0, HPI timeout while attempting to access DSP  
"[chars]"
```

Explanation A DSP on the radio line card did not grant access to its memory. A DSP firmware internal error has probably occurred.

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

Error Message

```
%RADIO-4-DSPINDERR: Radio[dec]/0, Error processing indication from DSP "[chars]"
([chars]:[dec])
```

Explanation A DSP on the radio line card has generated an indication message that could not be processed. Messages are not processed when the router is operating under a severe traffic load.

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

Error Message

```
%RADIO-4-DSPSPURRESP: Radio[dec]/0, spurious DSP response from "[chars]": [hex]
[hex] [hex] [hex] [hex] [hex] [hex] [hex]
```

Explanation A DSP on the radio line card has generated a response message unexpectedly. Messages are not processed when the router is operating under a severe traffic load.

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

Error Message

```
%RADIO-4-DSPULOFLOW: Radio[dec]/0, uplink message queue overflow reported by DSP
"[chars]"
```

Explanation At least one DSP-to-router message was lost because the uplink queue of that DSP was full. DSP-to-router messages can be lost when many thresholds, histograms, or timelines are being triggered or are expiring at the same time.

Recommended Action Change the thresholds or reduce histogram or time line usage to ease the load on the system.

Error Message

```
%RADIO-4-FPGADONEPINLOW: Radio[dec]/0, DONE pin on FPGA "[chars]" did not assert
after downloading
```

Explanation The DONE pin of an FPGA device on the radio line card did not assert after the device was downloaded. This error message likely indicates an existing or developing hardware failure.

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

Error Message

%RADIO-4-FPGAINITPINHIGH: Radio[dec]/0, INIT pin on FPGA "[chars]" asserted during downloading

Explanation The INIT pin of an FPGA device on the radio line card asserted midway through the downloading of the device. The most likely cause of this error is a corrupted FPGA image.

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

Error Message

%RADIO-4-FPGAINITPINLOW: Radio[dec]/0, INIT pin on FPGA "[chars]" not asserted when PROG pin asserted

Explanation The INIT pin of a FPGA device on the radio line card did not assert when the PROG pin was asserted. The most likely cause of this error is either a faulty FPGA device or software problem caused by resetting a faulty FPGA device.

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

Error Message

%RADIO-4-IF_COMM: Radio[dec]/0, IDU IF internal serial communication error - [chars]

Explanation An internal serial communication error has occurred. The most likely cause of this error is a loose IF baby board.

Recommended Action Replace the loose IF baby board.

Error Message

%RADIO-4-IF_OSC: Radio[dec]/0, Internal [chars] Oscillator out of Lock [chars]

Explanation A hardware error has occurred. The most likely cause of this error is vibration or hardware failure.

Recommended Action Replace the internal card.

Error Message

%RADIO-5-IMAGE_BAD_CRC: [chars][dec]/[dec], detected a bad CRC while downloading image "[chars]" to chip "[chars]"

Explanation An internal software error has occurred. The most likely cause of this error is a protocol error during downloading.

Recommended Action If the download is a TFTP download, try it again. If the error recurs, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%RADIO-6-IMAGE_NOT_FOUND: [chars][dec]/[dec], could not find image "[chars]" for chip "[chars]"

Explanation An internal software error has occurred. The most likely cause of this error is an incorrectly typed URL for the image.

Recommended Action Enter the correct URL.

Error Message

%RADIO-5-IMAGE_TIMEOUT: [chars][dec]/[dec], timeout trying to open image "[chars]" for chip "[chars]"

Explanation An internal software error has occurred. The most likely cause of this error is a protocol error that occurred while the image was being opened.

Recommended Action If the download is a TFTP download, try it again. If the error recurs, call your Cisco technical support representative.

Error Message

%RADIO-5-LOCAL_IN_SYNC: Radio[dec]/0, Link synchronization acquired.

Explanation The physical layer has successfully acquired a link.

Recommended Action No action is required.

Error Message

%RADIO-5-LOCAL_NO_CW: Radio[dec]/0, Still trying to establish link (validate codeword).

Explanation An internal software error has occurred. The most likely cause of this error is that the remote system is not sending on the correct frequency.

Recommended Action Enter the **no shut** command for the remote system.

Error Message

%RADIO-5-LOCAL_NO_FREQ: Radio[dec]/0, Still trying to establish link (frequency sync).

Explanation An internal software error has occurred. The most likely cause of this error is that the remote system is not sending on the correct frequency.

Recommended Action Enter the **no shut** command for the remote system.

Error Message

%RADIO-5-LOCAL_NO_SYNC: Radio[dec]/0, Still trying to establish link (timing sync).

Explanation An internal software error has occurred. The most likely cause of this error is that the remote system is not sending on the correct timing frequency.

Recommended Action Enter the **no shut** command for the remote system.

Error Message

%RADIO-5-LOCAL_NO_TRANSMIT: Radio[dec]/0, ODU saftey interlock is preventing transmission. Check ODU and cables. [chars]

Explanation An internal software error has occurred. The most likely cause of this error is an unattached cable or an overheated ODU.

Recommended Action Check the ODU and cables.

Error Message

%RADIO-5-LOCAL_NO_VITERBI: Radio[dec]/0, Still trying to establish link (viterbi sync).

Explanation An internal software error has occurred. The most likely cause of this error is that the remote system is not sending on the correct frequency.

Recommended Action Enter the **no shut** command for the remote system.

Error Message

%RADIO-5-METRICS_THRESH: Radio[dec]/0, [chars] per [chars] threshold met ([dec]>=[dec])

Explanation An internal software error has occurred. The most likely cause of this error is a misaligned antenna.

Recommended Action Realign the antenna.

Error Message

```
%RADIO-4-NEWER_IF_EEPROM: Radio[dec]/0, Unsupported IF PIC major eeprom version ([int]) on IDU
```

Explanation IOS should be upgraded to support the new eeprom

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

Error Message

```
%RADIO-4-NEWER_RF_EEPROM: Radio[dec]/0, Unsupported RF PIC major eeprom version ([int]) on ODU [dec]
```

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

Recommended Action Call tech support - upgrade IOS

Error Message

```
%RADIO-4-NO_HWCAP_FIELD: Radio[dec]/0, could not find HW Capabilities field in IDPROM
```

Explanation An internal software error has occurred. The most likely cause of this error is an improperly programmed IDPROM.

Recommended Action Reprogram the IDPROM on the line card.

Error Message

```
%RADIO-4-NO_IMAGE: [chars][dec]/[dec], Chip "[chars]": failed to find image given current configuration
```

Explanation An internal software error has occurred. The most likely cause of this error is that the configuration uses external files.

Recommended Action Change the configuration to use internal files.

Error Message

```
%RADIO-4-PHY_REQ: Radio[dec]/0, link synchronization [chars].
```

Explanation An internal software error has occurred. The most likely cause of this error is a loose ODU cable.

Recommended Action Check the ODU cables.

Error Message

```
%RADIO-5-PHY_RETRY: Radio[dec]/0, event [chars] in state [chars]
```

Explanation An internal software error has occurred. The most likely cause of this error is an incorrect configuration.

Recommended Action Review the configuration and hardware capabilities.

Error Message

```
%RADIO-4-PHY_SYNC_FAIL: Radio[dec]/0, link synchronization [chars].
```

Explanation An error has occurred. The most likely cause of this error is a loose ODU cable.

Recommended Action Check the ODU cables.

Error Message

```
%RADIO-5-PHY_SYNC_LOST: Radio[dec]/0, Lost link. Check remote transmitter.
```

Explanation An internal software error has occurred. The most likely cause of this error is a remote system that is not sending.

Recommended Action Enter the **no shut** command for the remote system.

Error Message

```
%RADIO-4-PHY_SYNC_OK: Radio[dec]/0, link synchronization acquired.
```

Explanation An internal software error has occurred. The most likely cause of this error is that the **no shut** command was entered.

Recommended Action No action is required.

Error Message

```
%RADIO-4-PHY_SYNC_REOK: Radio[dec]/0, link synchronization re-acquired.
```

Explanation An internal software error has occurred. The most likely cause of this error is that the **no shut** command was entered on the remote end.

Recommended Action No action is required.

Error Message

```
%RADIO-5-REMOTE_LOST_SYNC: Radio[dec]/0, Remote end reports: [chars]
```

Explanation A hardware error has occurred. The most likely cause of this error is an unattached cable or an overheated ODU.

Recommended Action Check the ODU cables.

Error Message

%RADIO-5-REMOTE_NO_SYNC: Radio[dec]/0, Remote end reports: Unable to acquire link synchronization.

Explanation A hardware error has occurred. The most likely cause of this error is an unattached cable or an overheated ODU.

Recommended Action Check the ODU cables.

Error Message

%RADIO-4-RF_AGC: Radio[dec]/0, ODU [dec] max transmitter power exceeded [chars]

Explanation A hardware failure has occurred.

Recommended Action Replace the RF ODU.

Error Message

%RADIO-4-RF_ANTENNA: Radio[dec]/0, ODU [dec] is [chars]

Explanation A hardware error has occurred. The most likely cause of this error is a disconnected cable.

Recommended Action Check or replace the cable from the UBR to the ODU.

Error Message

%RADIO-4-RF_COMM: Radio[dec]/0, ODU [dec] serial communication error - [chars]

Explanation A hardware error has occurred. The most likely cause of this error is a disconnected cable.

Recommended Action Check or replace the cable from the UBR to the ODU.

Error Message

%RADIO-4-RF_OSC: Radio[dec]/0, ODU [dec] [chars] Oscillator out of Lock [chars]

Explanation A hardware error has occurred. The most likely cause of this error is vibration or hardware failure.

Recommended Action Replace the electronics on the ODU.

Error Message

%RADIO-2-RF_OVERTEMP: Radio[dec]/0, ODU [dec]: over temperature [chars]

Explanation A hardware error has occurred. The most likely cause of this error is hardware failure or solar heating.

Recommended Action Keep the RF ODU cool.

Error Message

%RADIO-4-RF_TEMP: Radio[dec]/0, ODU [dec]: temperature is [dec] degrees C, threshold is [dec] degrees C

Explanation A hardware error has occurred. The most likely cause of this error is hardware failure or solar heating.

Recommended Action Keep the RF ODU cool.

Error Message

%RADIO-4-RF_VOLT: Radio[dec]/0, ODU [dec]: supply voltage out of range [chars]

Explanation A hardware error has occurred.

Recommended Action Replace the RF ODU.

Error Message

%RADIO-3-SELF_TEST_FAILED: Radio[dec]/0, failed self-test

Explanation A hardware error has occurred.

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

Error Message

%RADIO-6-SELF_TEST_SUCCESS: Radio[dec]/0, self-test successful

Explanation The system has passed a self-diagnostic test.

Recommended Action No action is required. Passing the self-diagnostic test is the desired result.

Error Message

%RADIO-5-THRESHOLD: Radio[dec]/0, [chars] [chars] threshold crossed ODU [dec]

Explanation An internal software error has occurred. The most likely cause of this error is a user-defined threshold.

Recommended Action No action is required.

RADIO_DRIVER Messages

The following are radio driver messages.

Error Message

```
%RADIO_DRIVER-1-DISCOVER: Only found [dec] interfaces on bay [dec], shutting down bay
```

Explanation A system or hardware failure has occurred.

Recommended Action Replace the line card.

Error Message

```
%RADIO_DRIVER-3-DMADESCSEQERR: DMAC detected a descriptor sequence error (DMAC Status Register is [hex]).
```

Explanation An internal software error has occurred.

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

Error Message

```
%RADIO_DRIVER-3-LOCALBUSERR: A line card local bus error, error status [hex], error address [hex]
```

Explanation A device on the radio line card local bus either did not respond to a selection, timed out once selected, or issued an error message while selected. This action probably indicates an existing or developing hardware failure.

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

Error Message

```
%RADIO_DRIVER-3-NOTRADIO: Device reported [hex]
```

Explanation A hardware error has occurred.

Recommended Action Replace the defective hardware.

Error Message

`%RADIO_DRIVER-3-PCIPERROR: DMAC reported PCI parity error (DMAC Status Reg: [hex])`

Explanation A parity error has occurred on the PCI bus while the radio DMA controller was performing a read/write operation. This parity error probably indicates an existing or developing hardware failure.

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

Error Message

`%RADIO_DRIVER-3-PCITARGETABORT: Device received a PCI Target Abort (DMAC Status Register is [hex])`

Explanation When the device was attempting a PCI master read/write operation, the target issued an abort to the DMA controller. This error usually indicates that an incorrect target was selected, and in this case it means that shared packet memory was not the target. This is likely a software error causing the radio DMAC to access an invalid target.

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

RADIUS Messages

The following are RADIUS messages.

Error Message

`%RADIUS-3-ALLDEADSERVER: Group [chars]: No active radius servers found. Id [dec].`

Explanation All RADIUS servers in the server group were found to be unresponsive after the RADIUS server request, with the ID that is used by the RADIUS server protocol, was retransmitted and timed out. This message appears only if the **radius-server deadtime** command has been entered to cause unavailable servers to be immediately skipped.

Recommended Action Check the network connectivity to the RADIUS servers and ensure that the servers are running. If the server is running and there is network connectivity with the server, the request may get dropped at the input or output queue of the network interface by UDP, or the request may get dropped at the Radius server end because of a queue overflow or a Radius Server that is approaching its processing limit. When a server in the server group specified in the error message is responding, the `%RADIUS-6-SERVERALIVE` message will follow.

Error Message

%RADIUS-4-BADATTRLIST: Unable to process attribute list.

Explanation The attribute list is syntactically incorrect.

Recommended Action Specify the attribute list as a comma-delimited string of integers from 1 to 255.

Error Message

%RADIUS-3-CORRUPTCONTEXT: Bad Magic pattern in [chars]:[hex], magic:[hex]!

Explanation The magic pattern imprinted on the internal hash table data structures in the RADIUS subsystem is missing. This condition indicates memory corruption.

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

Error Message

%RADIUS-3-DATAERROR: Warning: [chars]

Explanation The data given to the RADIUS subsystem is considered invalid and may result in loss of attributes.

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

Error Message

%RADIUS-3-FORKFAIL: Failed to fork process for [chars].

Explanation The system has probably run out of memory.

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

Error Message

%RADIUS-3-FORMATLONG: Format string too long. Maximum allowed length is [dec].

Explanation The user has attempted to configure a format string with a prefix that is too long.

Recommended Action Enter a format string with a shorter prefix.

Error Message

%RADIUS-6-GETPOOLS: Retrieving IP-Pools via user [chars]

Explanation Initial IP pool definitions are being retrieved from RADIUS using the profile of the specified user.

Recommended Action No action is required.

Error Message

%RADIUS-6-GETROUTES: Retrieving static routes in user [chars]

Explanation Initial static routes are being retrieved from RADIUS using the profile of the specified user.

Recommended Action No action is required.

Error Message

%RADIUS-3-IDENTFAIL: Save of unique accounting ident aborted. Configuration has been modified.

Explanation Because the configuration has been modified, the user cannot save the unique accounting IDENT to NVRAM.

Recommended Action Save the configuration and try again. If the error persists, copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%RADIUS-6-IDENTSAVE: Saving config with new acct ident in nvram.

Explanation An accounting IDENT is being saved in NVRAM.

Recommended Action No action is required.

Error Message

%RADIUS-3-INVALIDFORMAT: Invalid Nas Port Format: [chars] [char]

Explanation The user is attempting to configure an incorrect format string.

Recommended Action Enter a 32-character string using supported characters only.

Error Message

%RADIUS-3-NOATTRLIST: No attribute-list passed through parser.

Explanation An internal error has occurred.

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

Error Message

%RADIUS-4-NOATTRLISTDEF: Warning: Attribute list [chars] is not defined.

Explanation The specified attribute list is not defined.

Recommended Action Define the specified attribute list.

Error Message

%RADIUS-3-NOHOSTNAME: Failed to retrieve my hostname.

Explanation An attempt to find the host name of the router has failed. A host name must be defined because it determines the RADIUS profile to be retrieved.

Recommended Action Define a host name in the configuration of the router.

Error Message

%RADIUS-4-NOSERV: Warning: Server [IP_address]:[dec],[dec] is not defined.

Explanation The specified server is not on the master list. If it remains undefined, unexpected results may occur.

Recommended Action Define the server on the appropriate master list as soon as possible.

Error Message

%RADIUS-3-NOSERVERS: No Radius hosts configured.

Explanation RADIUS is attempting to send a request to a host, but no hosts are configured.

Recommended Action To configure a host, use the **radius-server** command.

Error Message

%RADIUS-3-OVERRUN: Insufficient buffer space [dec] for string value.

Explanation An internal software error has occurred.

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

Error Message

%RADIUS-3-PICKERR: Internal pick-server error: [chars]

Explanation RADIUS has encountered an internal consistency error.

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

Error Message

%RADIUS-6-RESETDEADSERVER: Group [chars]: Marked alive as Radius s \nserver [IP_address]:[dec],[dec] configured.

Explanation The RADIUS server is configured in the server group that was previously marked as dead.

Recommended Action No action is required.

Error Message

%RADIUS-3-SECRETDEFINEFAILED: Key definition ignored.

Explanation The user is attempting to store either a corrupted shared secret or a memory allocation has failed during the secret definition. Any existing shared secret will be preserved.

Recommended Action Configure an appropriate secret.

Error Message

%RADIUS-6-SERVERALIVE: Group [chars]: Radius server [IP_address]:[dec],[dec] is responding again (previously dead).

Explanation A RADIUS group server in which all the servers were previously found dead has started responding again. This message follows the %RADIUS-3-ALLDEADSERVER command and shows that a server has become available after previously being unavailable.

Recommended Action No action is required.

Error Message

%RADIUS-4-SERVREF: Warning: Server [IP_address]:[dec],[dec] is still referenced by server group.

Explanation The server that is being removed is still referenced by a server group.

Recommended Action Remove the server reference from the server group as soon as possible.

Error Message

%RADIUS-3-SERVERTYPEMISMATCH: Servers [IP_address] and [IP_address] in server group '[chars]' are of different types.

Explanation All the servers in a server group should be of the same type (either standard or nonstandard).

Recommended Action Check the running configuration and ensure that the RADIUS servers in the server group are all either standard or no-standard type.

Error Message

%RADIUS-3-SOURCEPORTALLOCERROR: Warning: Unable to allocate port [dec]

Explanation The system was unable to allocate the port specified in the error message. The system will not have the full range of source ports.

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

Error Message

%RADIUS-3-ZEROATTRLEN: Radius attr [dec] len 0

Explanation An internal error has occurred.

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

RADIX Messages

The following are radix messages.

Error Message

%RADIX-3-ADDMASK: Error adding mask entry, [chars]

Explanation A software or hardware error has occurred.

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

Error Message

%RADIX-3-BADTREE: Invalid pointer to head of tree, [hex]

Explanation A software programming error has occurred.

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

Error Message

%RADIX-3-DELETE: Error deleting trie entry, [chars]

Explanation A software programming error has occurred.

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

Error Message

%RADIX-2-INIT: No memory for radix initialization: [chars]

Explanation The system ran out of memory during initialization. This error should occur only if an image is too large for the existing dynamic memory.

Recommended Action Use a smaller subset image or upgrade the hardware.

Error Message

%RADIX-3-NOMEMORY: No memory available [chars]

Explanation The system is out of memory.

Recommended Action To correct the problem, reduce the number of routes accepted by this router, upgrade the hardware, or use a smaller subset image on the run-from-RAM platforms.

Error Message

%RADIX-4-ORPHAN: Orphaned mask [hex], refcount=[dec] at [hex], next=[hex]

Explanation A software error has occurred.

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

RAIKO Messages

The following are RAIKO-based feature board messages.

Error Message

```
%RAIKO-3-BAD_MGMT_INT_HNDLR_CB_REG: Slot [dec]: Mgmt int. handler's registration routine was passed NULL callback address(es) -- enabler=[hex], handler=[hex]; registering party's callback details ignored
```

Explanation A management-level interrupt handler has been registered incorrectly with device-independent code. A software fix is required.

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

Error Message

```
%RAIKO-3-BRIDGE_PCI_ERROR: Slot [dec]:DFC [dec] ERROR [chars]
```

Explanation A PCI error has occurred during an attempt to access a DFC. The DFC has been shut down.

Recommended Action Replace the DFC.

Error Message

```
%RAIKO-3-DFC_ID_ZERO: Slot [dec]: id of DFC[int] is invalid (zero); cookie probably unprogrammed
```

Explanation When the cookie on the specified DFC was read for the ID of the DFC, an invalid value of 0 was returned. The invalid value indicates that the cookie on the DFC has not been programmed properly.

Recommended Action Reprogram the cookie on the DFC.

Error Message

```
%RAIKO-3-MGMT_INT_HNDLR_INST_FAILED: Slot [dec]: installation of desired Mgmt interrupt handler failed -- no routine is currently installed at IOS Level [dec]
```

Explanation An attempt to install the required management interrupt handler at the specified Cisco IOS level has failed.

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

Error Message

```
%RAIKO-3-MGMT_INT_UNCLAIMED: Slot [dec]: a Mgmt interrupt occurred but was not processed by a device-specific handler; following sources masked out: [chars]
```

Explanation A source of management-level interrupts does not have a handler registered for it. A software fix is needed to install the proper handler.

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

Error Message

```
%RAIKO-3-NO_MGMT_INT_HNDLR_CB_ENTRY: Slot [dec]: no free Mgmt int. handler callback entries (all [dec] in use); registering party's callback details dropped
```

Explanation More management interrupt handlers have registered than can be managed. A software fix is required.

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

Error Message

```
%RAIKO-3-UNEXPECTED_MGMT_INT_HNDLR: Slot [dec]: installation of Mgmt int. handler apparently failed -- routine currently installed at IOS Level [dec] is [hex]
```

Explanation An attempt to install the required management interrupt handler at the specified Cisco IOS level has failed because another handler was found there.

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

RBCP Messages

The following are Router Blade Control Protocol (RBCP) messages.

Error Message

```
%RBCP-4-DACK_TIMEOUT_MSG: RBCP delivery ack timeout for opcode=[hex]
```

Explanation The system did not receive RBCP delivery acknowledgments from the service module, even after two retries.

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

Error Message

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

Explanation The supply of packet buffers is exhausted.

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

Error Message

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

Explanation The RBCP protocol subsystem could not allocate enough memory for the function specified in the error message.

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

Error Message

%RBCP-2-NOTREG: Process [dec]([chars]) not registered for RBCP

Explanation The RBCP application has not registered for a SAP and therefore cannot send an RBCP message.

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

Error Message

%RBCP-2-TOO_MANY_SAP: Not enough SAP numbers to register process [dec]([chars]) for RBCP

Explanation The RBCP application cannot register for a SAP because all possible numbers have been assigned.

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

RCMD Messages

The following are remote command messages.

Error Message

%RCMD-4-RCMDDNSFAIL: DNS hostname/ip address mismatch. [chars] unknown to DNS

Explanation The IP address for an incoming rcmd request is not registered with the DNS.

Recommended Action Add the IP address to the DNS.

Error Message

%RCMD-4-RCPATTEMPTED: Remote copy from [chars] at [chars] denied

Explanation An attempt was made to connect to a router through RCP, but the router was not configured as an RCP server.

Recommended Action Configure an RCP server.

Error Message

%RCMD-4-RSHATTEMPTED: Remote shell from [chars] at [chars] denied

Explanation An attempt was made to connect to a router through the rsh protocol, but the router was not configured as an rsh server.

Recommended Action Configure an rsh server.

Error Message

%RCMD-4-RSHPORTATTEMPT: Attempted to connect to RSHELL from [IP_address]

Explanation An attempt was made to connect to a router through the rshell port (514), but the router was not configured as an rsh or RCP server.

Recommended Action Configure an rsh or RCP server.

Error Message

%RCMD-4-RSHPORTATTEMPT: Attempted to connect to RSHELL from [chars]

Explanation An attempt was made to connect to a router through the remote shell syslog port, but the router was not configured as an rsh or RCP server.

Recommended Action Configure the server to use rsh or RCP.

Regen Messages

The following are Cisco optical regenerator messages.

Error Message

```
%Regen-3-BADADDR: regen_little_endian_addr: Attempted conversion of invalid address ([hex])
```

Explanation A software error has occurred during an attempt to determine PCI device addressing. This condition is most likely to occur because of a software error.

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

Error Message

```
%Regen-3-BADADDR2: regen_big_endian_addr: Attempted conversion of invalid address ([hex])
```

Explanation A software error has occurred during an attempt to determine PCI device addressing. This condition is most likely to occur because of a software error.

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

Error Message

```
%Regen-3-BADBAYDEV: get_pci_dev_num: Invalid bay ([dec]) or device number offset ([dec])
```

Explanation A software error has occurred during an attempt to determine PCI device addressing. This condition is most likely to occur because of a software error.

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

Error Message

```
%Regen-3-BADDEVNO: pas_get_device_subunit: Invalid PCI device number: [dec]
```

Explanation A software error has occurred during an attempt to determine PCI device addressing. This condition is most likely to occur because of a software error.

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

Error Message

%Regen-3-BADNV: Detected invalid NVRAM size: [dec] bytes

Explanation The system has detected that the size of the NVRAM is not supported. The NVRAM might be bad.

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

Error Message

%Regen-3-BADPA: Invalid Port Adaptor type ([dec]) reported for mainboard

Explanation The virtual port adapter type derived from the main board is not one of the supported types. The main board is a new main board type, and the software release that is running does not support the new main board type.

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

Error Message

%Regen-3-BADPCIRD: PCI Configuration Read Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation A PCI bus configuration read cycle has failed.

Recommended Action The main board needs to be replaced. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

%Regen-3-BADPCIWR: PCI Configuration Write Cycle Failed for bus [dec], Device [dec], function [dec], register [dec]

Explanation A PCI bus configuration write cycle has failed.

Recommended Action The main board needs to be replaced. Copy the error message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Error Message

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

Explanation All the available MAC addresses for the system have been allocated.

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

Error Message

```
%Regen-3-NVERASEFAIL: Failed to erase config due to internal error
```

Explanation The password protection feature has failed to erase the configuration because of an internal error.

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

Error Message

```
%Regen-1-OVERTEMP: System detected OVERTEMPERATURE condition.\nPutting the system in Power save mode and going to rommon.\nPlease resolve cooling problem and restart system!\n
```

Explanation The environmental monitor has detected a high-temperature condition.

Recommended Action Ensure that the room temperature is not too high and that air flow to the card is not blocked. If this condition persists, the environmental monitor might shut down the system. If the message recurs, copy the message exactly as it appears on the console or in the system log, contact your Cisco technical support representative, and provide the representative with the gathered information.

Regen_MAINBOARD_ASYNC_PQUICC Messages

The following Cisco optical regenerator messages relate to the Asynchronous MPC860 quad integrated communications controller.

Error Message

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

Explanation The router does not have enough memory to perform the function.

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

REGISTRY Messages

The following are registry messages.

Error Message

```
%REGISTRY-3-HOG_INTR: Registry service: [chars] took [int] ms; configured  
threshold: [int] ms \n-Traceback= [chars]\n
```

Explanation A registry service invoked by an interrupt routine took longer than the configured allowed maximum to complete.

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

Error Message

```
%REGISTRY-3-HOG_PROC: Registry service: [chars] took [int] ms; configured  
threshold: [int] ms \n-Traceback= [chars]\n
```

Explanation A process-invoked registry service took longer than the configured allowed maximum.

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

Error Message

```
%REGISTRY-3-HOG_PROC_FUNC: Function callback: [hex] took [int] ms; configured  
threshold: [int] ms; invoked from registry: [chars] \n-Traceback= [chars]\n
```

Explanation A process-invoked function callback took longer than the configured allowed maximum.

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

Error Message

```
%REGISTRY-3-STUB_CHK_OVERWRITE: Attempt made to overwrite a set stub function in  
[chars].
```

Explanation A single function can be set as a callback when a stub with check registry is invoked. This error message indicates that an attempt to set a new callback has failed because a callback function has already been set.

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

Error Message

%REGISTRY-4-TABLE_SIZE: The table for [chars] is now full.

Explanation All the entries in the table have been filled.

Recommended Action Reconfigure the table size to a different value.

RESOURCE_MON Messages

The following are resource monitor subsystem messages.

Error Message

%RESOURCE_MON-1-INITSYS: [chars]

Explanation This error indicates an initialization failure. The specific message text is supplied by the Resource Monitor software. When this error occurs, the Resource Monitor subsystem is not operational.

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

Error Message

%RESOURCE_MON-1-RSCMON_BAD_DATA: [chars]

Explanation This error indicates that internal data was corrupted because of a software error. The specific message text is supplied by the Resource Monitor software.

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

Error Message

%RESOURCE_MON-1-RSCMON_CLIENT_Q. : [chars]

Explanation This error indicates a memory exhaustion condition. The specific message text is supplied by the Resource Monitor software.

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