APPENDIX B

System Message Overview

This publication lists and describes the Cisco IOS system error messages specific to Cisco IOS Release 15.2(4)GC. The system software sends these error messages to the console (and, optionally, to a logging server on another system) during operation. Not all system error messages indicate problems with your system. Some messages are purely informational, while others may help diagnose problems with communications lines, internal hardware, or the system software.

This publication also includes error messages that appear when the system fails.

This chapter contains the following sections:

System Message Structure

System error messages are structured as follows:

FACILITY-SEVERITY-MNEMONIC: Message-text

- FACILITY code

  The facility code consists of two or more uppercase letters that indicate the facility to which the message refers. A facility can be a hardware device, a protocol, or a module of the system software. Table B-1 lists the system facility codes.

Table B-1 Facility Codes

Code	Facility
IPMUX	IP Mutiplexing

- SEVERITY level

  The severity level is a single-digit code from 0 to 7 that reflects the severity of the condition. The lower the number, the more serious the situation. Table B-2 lists the message severity levels.

Table B-2 Message Severity Levels

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

- MNEMONIC code

  The MNEMONIC code uniquely identifies the error message.

- Message-text

  Message-text is a text string that describes the condition. The text string sometimes contains detailed information about the event, including terminal port numbers, network addresses, or addresses that correspond to locations in the system memory address space. Because variable fields change from message to message, they are represented here by short strings enclosed in square brackets ([ ]). A decimal number, for example, is represented as [dec]. Table B-3 lists the variable fields in messages.

Table B-3 Representation of Variable Fields in Messages

Representation	Type of Information
[chars] or [char]	Character string
[dec]	Decimal
[hex]	Hexadecimal integer
[int]	Integer
[num]	Number

System Message Example

The following is an example of a system error message:

LINK-2-BADVCALL: Interface [chars], undefined entry point

- LINK is the facility code.
- 2 is the severity level.
- BADVCALL is the mnemonic code.
- “Interface [chars], undefined entry point” is the message text.

Using the Error Message Decoder to Search for System Messages

The Error Message Decoder (EMD) is a tool that will help you to research and resolve error messages for Cisco software. EMD helps you to understand the meaning of the error messages that display on the console of Cisco routers, switches, and firewalls.

To use the EMD, copy the message that appears on the console or in the system log, paste it into the window, and press the Submit button. You will automatically receive an Explanation, Recommended Action, and, if available, any related documentation for that message.

The EMD is located here:

http://www.cisco.com/pcgi-bin/Support/Errordecoder/index.cgi

Searching for System Messages in Online Documentation

search for messages in online documentation, use the search function of your browser by copying and pasting the message that appears on the console or in the system log.

Some messages that appear on the console or in the system log indicate where the system condition occurred. These messages are structured as follows:

FACILITY-SOURCE-SEVERITY-MNEMONIC: Message-text

SOURCE indicates the location of the condition. Examples of SOURCE are SP, which indicates that the condition occurred in the switch processor, or DFC5, which indicates that the condition occurred in the Distributed Forwarding Card on the module in slot 5.

If you search for the explanation and recommended action of a message that contains a SOURCE, remove the SOURCE from the text first, and then search for the message in the documentation.

For example, instead of searching the documentation for the message C6KPWR-SP-4-DISABLED, remove the SOURCE identifier and search for the message C6KPWR-4-DISABLED.

Error Message Traceback Reports

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

The following sample message includes traceback information:

-Process = "Exec", level = 0, pid = 17

-Traceback = 1A82 1AB4 6378 A072 1054 1860

Error Messages

This section lists the switch system messages by facility. Within each facility, the messages are listed by severity levels 0 to 7. The highest severity level is 0, and the lowest severity level is 7. Each message is followed by an explanation and a recommended action.

Note The messages listed in this chapter do not include the date/time stamp designation; the date/time stamp designation is displayed only if the software is configured for system log messaging.

IPMUX

This section contains theIP Mutliplexing (IPMUX) messages.

IPMUX-3

Error Message `IPMUX-3-V4_CACHE_FULL: IPMux V4 Cache full - replacing active entry`

Explanation This message indicates that the IPv4 multiplexing cache is full and each subsquent entry to the cache deletes a current IPv4 multiplexing cache entry.

Recommended Action Increase the IPv4 multiplexing cache using the **ip mux cache** command.

Error Message `IPMUX-3-V6_CACHE_FULL: IPMux V6 Cache full - replacing active entry`

Explanation This message indicates that the IPv6 multiplexing cache is full and each subsquent entry to the cache deletes a current IPv6 multiplexing cache entry.

Recommended Action Increase the IPv6 multiplexing cache using the **ipv6 mux cache** command.