



CHAPTER 1

System Message Overview

This guide describes the switch system messages. During operation, the system software sends these messages to the console (and, optionally, to a logging server on another system). Not all system messages indicate problems with your system. Some messages are purely informational, whereas others can help diagnose problems with communications lines, internal hardware, or the system software. This guide also includes error messages that appear when the system fails.

For information about Cisco IOS system messages that are not specific to this switch, see the *Cisco IOS Software System Messages for Cisco IOS Release 12.2* on www.cisco.com.

This chapter contains these sections:

- [How to Read System Messages, page 1-1](#)
- [Error Message Traceback Reports, page 1-2](#)

How to Read System Messages

System log messages can contain up to 80 characters and a percent sign (%), which follows the optional sequence number or time stamp information, if configured. Messages are displayed in this format:

seq no:timestamp: %facility-severity-MNEMONIC:description

By default, a switch sends the output from system messages to a logging process.

Each system message begins with a percent sign (%) and is structured as follows:

%FACILITY-SEVERITY-MNEMONIC: Message-text

- **FACILITY** is a code consisting of two or more uppercase letters that show the facility to which the message refers. A facility can be a hardware device, a protocol, or a module of the system software. [Table 1-1](#) lists the switch facility codes. These messages are described in [Chapter 2, “Message and Recovery Procedures,”](#) in alphabetical order by facility code, with the most severe (lowest number) errors described first.
- **SEVERITY** is a single-digit code from 0 to 7 that reflects the severity of the condition. The lower the number, the more serious the situation. [Table 1-1](#) lists the message severity levels.

Table 1-1 Message Severity Levels

Severity Level	Description
0 – emergency	System is unusable.
1 – alert	Immediate action required.

Table 1-1 Message Severity Levels (continued)

Severity Level	Description
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 is a code that uniquely identifies the message.
- Message-text is a text string describing the condition. This portion of the message sometimes contains detailed information about the event, including terminal port numbers, network addresses, or addresses that correspond to locations in the system memory address space. Because the information in these variable fields changes from message to message, it is represented here by short strings enclosed in square brackets ([]). A decimal number, for example, is represented as [dec]. [Table 1-2](#) lists the variable fields in messages.

Table 1-2 Representation of Variable Fields in Messages

Representation	Type of Information
[dec]	Decimal integer
[char]	Single character
[chars]	Character string
[enet]	Ethernet address (for example, 0000.FEED.00C0)
[hex]	Hexadecimal integer
[inet]	Internet address

This example shows a partial switch system message:

```
00:00:46: %LINK-3-UPDOWN: Interface Port-channel1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
00:00:47: %LINK-3-UPDOWN: Interface GigabitEthernet0/2, changed state to up
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan1, changed state to down
00:00:48: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed
state to down 2 *Mar  1 18:46:11: %SYS-5-CONFIG_I: Configured from console by vty2
(10.34.195.36)
18:47:02: %SYS-5-CONFIG_I: Configured from console by vty2 (10.34.195.36)
*Mar  1 18:48:50.483 UTC: %SYS-5-CONFIG_I: Configured from console by vty2 (10.34.195.36)
```

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.

This message example includes traceback information:

```
-Process= "Exec", level= 0, pid= 17  
-Traceback= 1A82 1AB4 6378 A072 1054 1860
```

Some system messages ask you to copy the error messages and take further action. These online tools also provide more information about system error messages.

Output Interpreter

The Output Interpreter provides additional information and suggested fixes based on the output of many CLI commands, such as the **show tech-support** privileged EXEC command. You can access the Output Interpreter at this URL:

<https://www.cisco.com/cgi-bin/Support/OutputInterpreter/home.pl>

Bug Toolkit

The Bug Toolkit provides information on open and closed caveats, and allows you to search for all known bugs in a specific Cisco IOS Release. You can access the Bug Toolkit at this URL:

<http://www.cisco.com/cgi-bin/Support/Bugtool/home.pl>

Contacting TAC

If you cannot determine the nature of the error, see the “[Obtaining Documentation and Submitting a Service Request](#)” section on page ix for further information.

