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 mean problems with your system. Some messages are informational, and others can help diagnose problems with communications lines, internal hardware, or the system software.

Note 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.

- How to Read System Messages, page 1-1
- Error Message Traceback Reports, page 1-6

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 appear 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 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.

Table 1-1   Facility Codes

Facility Code	Description	Location
ACLMGR	ACL manager	"ACLMGR Messages" section on page 2-3
AUTHMGR	Authentication manager	"AUTHMGR Messages" section on page 2-7

Table 1-1   Facility Codes (continued)

Facility Code	Description	Location
BACKUP_INTERFACE	Flex Links	"BACKUP_INTERFACE Messages" section on page 2-8
BSPATCH	Boot loader patch	"BSPATCH Messages" section on page 2-8
CMP	Cluster Membership Protocol	"CMP Messages" section on page 2-9
DHCP_SNOOPING	DHCP snooping	"DHCP_SNOOPING Messages" section on page 2-10
DOT1X	IEEE 802.1x	"DOT1X Messages" section on page 2-13
DOT1X_SWITCH	IEEE 802.1x for switches	"DOT1X_SWITCH Messages" section on page 2-15
DTP	Dynamic Trunking Protocol	"DTP Messages" section on page 2-18
DWL	Down-when-looped	"DWL Messages" section on page 2-20
EC	EtherChannel	"EC Messages" section on page 2-20
EPM	Enforcement Policy Module	"EPM Messages" section on page 2-25
ETHCNTR	Ethernet Controller	"ETHCNTR Messages" section on page 2-26
FRNTEND_CTRLR	Front-end controller	"FRNTEND_CTRLR Messages" section on page 2-26
GBIC_SECURITY	Gigabit Interface Converter (GBIC) module and small form-factor pluggable (SFP) module security	"GBIC_SECURITY Messages" section on page 2-27
GBIC_SECURITY_CRYPT	GBIC and SFP module security	"GBIC_SECURITY_CRYPT Messages" section on page 2-29
GBIC_SECURITY_UNIQUE	GBIC and SFP module security	"GBIC_SECURITY_UNIQUE Messages" section on page 2-30
HARDWARE	Hardware	"HARDWARE Messages" section on page 2-31
HLFM	Local forwarding manager	"HLFM Messages" section on page 2-32
HULC_LICENSE	Licensing	"HULC _LICENSE Messages" section on page 2-33
IFMGR	Interface manager	"IFMGR Messages" section on page 2-34
IGMP_QUERIER	Internet Group Management Protocol (IGMP) querier	"IGMP_QUERIER Messages" section on page 2-34

Table 1-1   Facility Codes (continued)

Facility Code	Description	Location
ILET	Cisco IOS License Enforcement Test	"ILET Messages" section on page 2-35
IP_DEVICE_TRACKING_HA	IP device tracking for high availability	"IP_DEVICE_TRACKING_HA Messages" section on page 2-36
MAC_LIMIT	MAC address table entries	"MAC_LIMIT Messages" section on page 2-36
MAC_MOVE	Host activity	"MAC_MOVE Messages" section on page 2-37
PHY	PHY	"PHY Messages" section on page 2-37
PIMSN	Protocol Independent Multicast (PIM) snooping	"PIMSN Messages" section on page 2-39
PLATFORM	Low-level platform-specific	"PLATFORM Messages" section on page 2-39
PLATFORM_FBM	Platform fallback bridging manager	"PLATFORM_FBM Messages" section on page 2-40
PLATFORM_HPLM	Platform pseudo label manager	"PLATFORM_HPLM Messages" section on page 2-41
PLATFORM_PBR	Platform policy-based routing	"PLATFORM_PBR Messages" section on page 2-41
PLATFORM_PM	Platform port manager	"PLATFORM_PM Messages" section on page 2-43
PLATFORM_SPAN	Platform Switched Port Analyzer	"PLATFORM_SPAN Messages" section on page 2-44
PLATFORM_UCAST	Platform unicast routing	"PLATFORM_UCAST Messages" section on page 2-44
PLATFORM_VLAN	Platform VLAN	"PLATFORM_VLAN Messages" section on page 2-46
PLATFORM_WCCP	Platform WCCP	"PLATFORM_WCCP Messages" section on page 2-47
PM	Port manager	"PM Messages" section on page 2-48
PORT_SECURITY	Port security	"PORT_SECURITY Messages" section on page 2-55
QOSMGR	QoS manager	"QOSMGR Messages" section on page 2-57
RMON	Remote Network Monitoring (RMON)	"RMON Messages" section on page 2-62
SCHED	Schedule	"SCHED Messages" section on page 2-62
SPAN	Switched Port Analyzer	"SPAN Messages" section on page 2-62

Table 1-1   *Facility Codes (continued)*

Facility Code	Description	Location
SPANTREE	Spanning Tree	"SPANTREE Messages" section on page 2-63
SPANTREE_FAST	Spanning-tree fast convergence	"SPANTREE_FAST Messages" section on page 2-71
SPANTREE_VLAN_SW	Spanning-tree VLAN switch	"SPANTREE_VLAN_SW Messages" section on page 2-71
STORM_CONTROL	Storm control	"STORM_CONTROL Messages" section on page 2-71
SUPERVISOR	Supervisor ASIC	"SUPERVISOR Messages" section on page 2-72
SUPQ	Supervisor queue	"SUPQ Messages" section on page 2-72
SW_DAI	Dynamic ARP inspection	"SW_DAI Messages" section on page 2-74
SW_MACAUTH	MAC address authentication	"SW_MACAUTH Messages" section on page 2-76
SW_MATM	MAC address table manager	"SW_MATM Messages" section on page 2-77
SW_VLAN	VLAN manager	"SW_VLAN Messages" section on page 2-77
SWITCH_QOS_TB	QoS trusted boundary	"SWITCH_QOS_TB Messages" section on page 2-84
TCAMMGR	Ternary content addressable memory manager	"TCAMMGR Messages" section on page 2-84
UDLD	UniDirectional Link Detection	"UDLD Messages" section on page 2-86
VQPCLIENT	VLAN Query Protocol client	"VQPCLIENT Messages" section on page 2-86
WCCP	Web Cache Communication Protocol (WCCP)	"WCCP Messages" section on page 2-87

- 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 1-2 lists the message severity levels.

Table 1-2   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 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 1-3 lists the variable fields in messages.

Table 1-3   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. Include this information 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 resolutions based on the output of many CLI commands, such as the **show tech-support** privileged EXEC command.

https://www.cisco.com/pcgi-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.

http://tools.cisco.com/Support/BugToolKit/

Contacting TAC

If you cannot determine the nature of the error, see the "Obtaining Documentation and Submitting a Service Request" section on page viii for further information.