



CHAPTER 1

System Message Overview

This publication lists and describes the Cisco IOS system messages for Catalyst 6500 series switches. 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.

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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 1-1](#) lists the system facility codes.

Table 1-1 Facility Codes

Code	Facility
ACE	Allegro Crypto Engine
AFLSEC	Accelerated Flow Logging Security
AP	Authentication Proxy
ATMSPA	ATM Shared Port Adapter
BGP	Border Gateway Protocol

Table 1-1 Facility Codes (continued)

Code	Facility
C6K_MPLS_COMMON	Catalyst 6500 Series Switch and Cisco 7600 Series Router Multiprotocol Label Switching for LAN and WAN
C6K_MPLS_LC	Catalyst 6500 Series Switch and Cisco 7600 Series Router Multiprotocol Label Switching for Switch Processor or Module
C6K_MPLS_RP	Catalyst 6500 Series Switch and Cisco 7600 Series Router Multiprotocol Label Switching for LAN
C6K_PLATFORM	General Platform
C6K_POWER	Power
C6K_PROCMIB	Process MIB SP CPU
C6K_WAN_C2W	WAN C2Wire
C6KENV	Environmental
C6KPWR	Power
C7600_SIP200	SPA Interface Processor 200
C7600_SIP200_MP	SIP 200 Multiprocessing
C7600_SIP200_SPIRX	SIP 200 SPI4.2 Bus Ingress Interface
C7600_SIP200_SPITX	SIP 200 SPI4.2 Bus Egress Interface
C7600_SSC400	Services SPA Carrier Card
C7600_SSC600	Services SPA Carrier Card
CAMP	Cooperative Asymmetric Multiprocessing
CAPI	Card Application Program Interface
CAPI_EC	Card/EtherChannel Limitation
CARDMGR	SIP 400 Card Manager (Data Plane)
CBUS	Cisco Bus Controller
CHARLOTTE	Dual OC-3 PoS Port Adapter
CHKPT	Checkpointing
CONST_DIAG	Online Diagnostics
CONST_V6	IP Version 6
CPU_MONITOR	CPU Monitor
CSG	Content Services Gateway
CWAN_ATM	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN ATM Port
CWAN_CHOC_DSX	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN CHOC DSX LC Common
CWAN_HA	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN High Availability

Table 1-1 Facility Codes (continued)

Code	Facility
CWANLC	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Module
CWANLC_ATM	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Module ATM
CWAN_QINQ	WAN QinQ
CWAN_RP	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Route Processor Driver
CWAN_SP	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Switch Processor Driver
CWPA	Catalyst 6500 Series Switch and Cisco 7600 Series Router Port Adapter Module
CWRPSPA	Shared Port Adapters on the Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Route Processor
CWSLC	WAN SiByte Module
CWTLC	WAN Optical Services Module
CWTLC_ATOM	Any Transport over MPLS on WAN Optical Services Modules
CWTLC_CHOC	Cyclops Channelized OC48/OC12
CWTLC_CHOXC	Optical Services Module (OSM) Channelized OC12/OC3 Module
CWTLC_GEWAN	Gigabit Ethernet WAN Module
CWTLC_RP	Catalyst 6500 Series Switch and Cisco 7600 Series Router WAN Toaster-based Module Route Processor
DATA CORRUPTION	Data corruption
DHCP_SNOOPING	Dynamic Host Configuration Protocol Snooping
DIAG	Online Diagnostics
DOT1X	IEEE 802.1X
EAP	Extensible Authentication Protocol
EARL	Enhanced Address Recognition Logic
EARL_ACL_FPGA	Enhanced Address Recognition Logic ACL Field-Programmable Gate Array
EARL_DRV_API	EARL Driver API
EARL_L2_ASIC	EARL Layer 2 ASIC
EARL_L3_ASIC	EARL Layer 3 ASIC
EARL_NETFLOW	EARL NetFlow
EC	Port Aggregation Protocol, Link Aggregation Control Protocol shim, and EtherChannel

Table 1-1 Facility Codes (continued)

Code	Facility
EM	Event Manager
ENT_API	Entity MIB API
ENVM	environmental monitoring
EOBC	Ethernet out-of-band channel
EOS	Eos ASIC
EOU	Extensible Authentication Protocol over UDP
EPLD_STATUS_OPEN	EPLD Programming Status File Data Processing
FABRIC	Fabric
FIB	Forwarding Information Base
FILESYS	File system
FM	Feature Manager
FMCORE	Core Feature Manager
FM_EARL6	EARL 6 Feature Manager
FM_EARL7	EARL 7 Feature Manager
FPM	Flexible Packet Matching
FTTM	Full Ternary TCAM Manager
HA_EM	Embedded Event Manager
HYPERION	Hyperion ASIC
IDBMAN	Interface Descriptor Block Manager
IP_DEVICE_TRACKING	IP Device Tracking
IPC	InterProcessor Communication
IPFAST	IP Fast Switching
IPNAT	IP Network Address Translation
IPV6	IP Version 6
IP_VRF	IP VPN Routing/Forwarding Instance Common Errors
IXP_MAP	ESF Network Processor Client Mapper
KEYMAN	Key String Encryption
L2	Layer 2
L2_AGING	Layer 2 Aging
L2_APPL	Layer 2 Application
L3MM	Layer 3 Mobility Manager
LINK	Data link
MAC_LIMIT	MAC Limit Feature
MAC_MOVE	MAC Move Notification Feature
MCAST	Layer 2 Multicast Log

Table 1-1 Facility Codes (continued)

Code	Facility
MCAST_MQC	Multicast Modular Quality of Service CLI
MDT	Multicast Distribution Tree
MFIB_CONST_RP	Multicast Forwarding Information Base Route Processor
MISTRAL	Mistral ASIC
MLS_ACL_COMMON	Multilayer Switching ACL
MLSCEF	Multilayer Switching Cisco Express Forwarding
MLSM	Multicast Distributed Shortcut Switching/Multilayer Switching for Multicast
MLS_RATE	Multilayer Switching Rate Limit
MLS_STAT	Multilayer Switching Statistics
MMLS	Multicast Multilayer Switching
MMLS_RATE	Multicast Multilayer Switching Rate Limit
MRIB_PROXY	Multicast Routing Information Base Proxy
MROUTE	Multicast Routing
MSFC2	Multilayer Switch Feature Card 2
NBAR	Network-based Application Recognition
NETFLOW_AGGREGATION	NetFlow Aggregation
NETWORK_RF_API	Network Redundancy Feature API
OIR	Online Insertion and Removal
ONLINE	Download Processor
OSM_MULTILINK	Optical Services Module Distributed Multilink
OSPF	Open Shortest Path First
PBI_OPEN	Programmable Binary File Data Processing
PF_ASIC	Protocol filtering ASIC
PFINIT	Platform Initialization
PFREDUN	Platform Redundancy
PIMSN	Protocol Independent Multicast Snooping
PISA	Programmable Intelligent Services Accelerator
PISAL2M	PISA Layer 2 Module
PM	Port Manager
PM_SCP	Port Manager Switch-Module Configuration Protocol
POSLC	Packet over SONET Module
QM	Quality of Service Management

Table 1-1 Facility Codes (continued)

Code	Facility
R4K_MP	Central Processing Unit
REGISTRY	Registry
RF	Redundancy Feature
RPC	Remote Procedure Call
RPF	Reverse Path Forwarding
RP_MLP	Route Processor Multilink Point-to-Point Protocol
RUNCFGSYNC	Auto-Running Configuration Synchronization
SBFIFO	MAC FIFO Controller
SCP	Switch Module Configuration Protocol
SFF8472	Optical Transceiver Diagnostic Monitoring
SIBYTE_ION	Sibyte Ion
SIP400	SPA Interface Processor 400
SIP600	SPA Interface Processor 600
SIP600_PARSING_ENGINE	SPA Interface Processor 600 Parsing Engine
SIP600_QOS	SPA Interface Processor 600 Quality of Service
SIPSPA	SPA on GSR line cards
SMSC_RP	Route Processor for Short Message Service Centers
SNMP	Simple Network Management Protocol
SPA_CHOC_DSX	Common Channelized Shared Port Adapter
SPA_T3E3	T3E3
SPAN	Switched Port Analyzer
SPANTREE	Spanning Tree
SPLITVLANM	Split VLAN Manager
SSA	Super Santa Ana ASIC
SSP	State Synchronization Protocol Manager
STAPL	Standard Test and Programming Language
SVCLC	Service line card
SW_VLAN	VLAN Manager
SYS	Operating system
SYS_CONTROLLER	System Controller
SYSMGR	System Manager
TCP	Transmission Control Protocol
TFIB	Tag Forwarding Information Base

Table 1-1 Facility Codes (continued)

Code	Facility
TRANGE	Time-range
TRANSCEIVER	Transceiver
UNICAST_FLOOD	Unicast Flooding
URLF	URL Filtering
VPN_HW	VPN Hardware Accelerator for IPSec
VPNSM	Virtual Private Network Services Module
VPNSMIOS	VPNSM Crypto Connection
VSEC	VACL Logging
WCCP	Web Cache Communication Protocol
WiSM	Wireless Service Module

- 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 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 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 1-3](#) lists the variable fields in messages.

Table 1-3 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.

Some messages also 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.

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/cgi-bin/Support/Errordecoder/index.cgi?locale=en>

Searching for System Messages in Online Documentation

To 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.

Terminology

In this publication, the terms “module” and “line card” both refer to a switch module.

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

