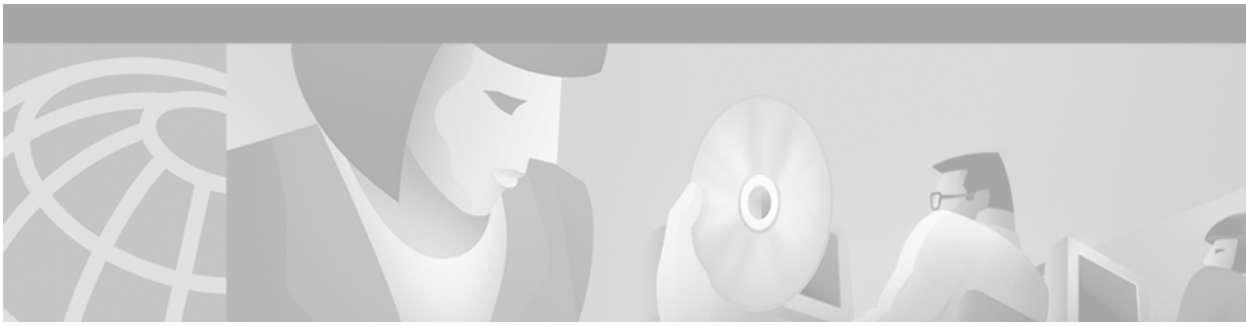

System Error Messages Overview

This publication lists and describes Cisco IOS system error messages. 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 are purely informational, and others may help diagnose problems with communications lines, internal hardware, or the system software.

This manual also includes error messages that appear when the system crashes.

Obtaining Technical Assistance

When the recommended action of an error message advises that you contact Cisco technical support, open a case with the Cisco Technical Assistance Center (TAC). Please see the section “Contacting TAC by Using the Cisco TAC Website” in the preface “About Cisco IOS Software.”

Additional Resources

The Cisco Technical Assistance Center (TAC) has made available to all registered users an online tool, the Cisco IOS Error Message Decoder, for researching and resolving error messages.

All you have to do is copy an error message or a command output from your screen and paste it into the appropriate text fields of the tool. Within moments, the tool responds with an interpretation of your text. The Cisco IOS Error Message Decoder makes it easy for you to distinguish between error messages that are purely informational and those that alert you to potential problems. This tool provides you with an explanation of the error message, a recommended action, and links to suggested online Cisco technical support resources. For help with researching and resolving your Cisco IOS error messages, try out the new Cisco IOS Error Message Decoder tool at http://www.cisco.com/support/Errordecoder/error-decoder.html.

How This Manual Is Organized

This manual contains three chapters:

- The "System Error Messages" chapter provides descriptions of error messages related to the Cisco IOS software, except for the CMCC facility. The messages are organized according to the particular system facility that produces the messages. The facility sections appear in alphabetical order, and within each facility section, messages are listed alphabetically by mnemonic. Each error message is followed by an explanation and a recommended action.
- The "CMCC System Error Messages" chapter provides descriptions of error messages related to the CMCC product family, which includes the Channel Interface Processor (CIP) and the Channel Port Adapter (CPA). The format of CMCC error messages differs from the format of other system error messages. For more information on CMCC message format, see the "CMCC System Error Messages" chapter.
- The "System Failure Error Messages" chapter provides descriptions of error messages that appear when the system image crashes.

The CMCC system error messages appear in a separate index after the index for system error messages.

For alphabetizing purposes, lowercase and uppercase letters are treated the same.

The index of error messages is alphabetized as follows:

1. Facility code
2. Mnemonic
3. Severity level

Note You can also view online system error messages that pertain to Cisco IOS Release 12.2-based releases. See the *Cisco IOS System Error Messages for 12.2*.

How to Read System Error Messages

System error messages begin with a percent sign (%) and are structured as follows:

```
%FACILITY-SUBFACILITY-SEVERITY-MNEMONIC: Message-text
```

`FACILITY` is a code consisting 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 lists the system facility codes.

`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 2 lists the severity levels.

`MNEMONIC` is a code that uniquely identifies the error 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 3 lists the representations of variable fields and the type of information in them.

The following is a sample system error message:

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

Some error messages also indicate the card and slot reporting the error. These error messages begin with a percent sign (%) and are structured as follows:

```
%CARD-SEVERITY-MSG:SLOT %FACILITY-SEVERITY-MNEMONIC: Message-text
```

`CARD` is a code that describes the type of card reporting the error. VIP and FEIP are possible card types.

`MSG` is a mnemonic that indicates that this is a message. It is always shown as `MSG`.

`SLOT` indicates the slot number of the card reporting the error. It is shown as `SLOT` followed by a number (for example, `SLOT5`).

Note The prepended portion of the error message (`%CARD-SEVERITY-MSG:SLOT`) is not shown in the error message listings in this manual.

Table 1 Facility Codes

Code	Facility
AAAA	TACACS+ authentication, authorization, and accounting security
ACLMERGE	Access control list merge
ADJ	Adjacency subsystem
AIP	ATM Interface Processor
ALARM	Telco chassis alarm related
ALC	ATM line card (ALC)
ALIGN	Memory optimization in Reduced Instruction Set Computer (RISC) processor
ALPS	Airline Protocol Support
AMD79C971_FE	Am79C971 Fast Ethernet device driver
AMDP2_FE	AMDP2 Ethernet and Fast Ethernet
AP	Authentication Proxy (AP)
ARAP	Apple Remote Access Protocol (ARAP)
AS5400	Cisco AS5400 platform
AS5400_ENVM	Cisco AS5400 environmental monitor
ASPP	Asynchronous Security Protocol (ASPP)
AT	AppleTalk (AT)
ATM	Asynchronous Transfer Mode
ATMCES	ATM access concentrator PCI port adapter driver
ATMCORE	ATM core
ATMOC3	ATM OC-3 network module
ATMPA	ATM port adapter
ATMSIG	ATM signaling subsystem

Table 1 Facility Codes (continued)

Code	Facility
ATMSSCOP	ATM Service Specific Connection Oriented Protocol (SSCOP)
ATUC	ATUC
AUTORP	PIMv2 AUTORP
BAP	PPP Bandwidth Allocation Protocol (BAP)
BCM3220	Cable modem MAC controller interface
BGP	Border Gateway Protocol
BIT	Dynamic bitlist
BRI	ISDN Basic Rate Interface
BRIMUX	Cisco AS5200 BRIMUX board
BSC	Binary Synchronous Communications protocol
BSTUN	Block serial tunneling (BSTUN)
C1400_PCI	Protocol control information (PCI) bus for Cisco 1400 platform
C1600	Cisco 1600 platform
C1700	Cisco 1700 platform
C1700_EM	Cisco 1700 VPN module hardware accelerator for IP security
C2600	Cisco 2600 platform
C2600_MAINBOARD_ ASYNC_PQUICC	MPC860 quad integrated communications controller for the Cisco 2600 platform
C29ATM	Catalyst 2900XL ATM module
C2KATM	Catalyst 2820 ATM module
C3600	Cisco 3600 platform
C4GWY_DSPRM	DSP Resource Manager
C542	Voice driver for modular access routers
C54X	VoIP driver
C54x	VoIP DSP driver
C5RSP	Cisco Catalyst 5000 platform
C6KENV	Cisco Catalyst 6000 environmental system
C6KPWR	Cisco Catalyst 6000 power control system
C6MSFC	C6MSFC (Draco)
C6SUP	C6SUP-specific
C7200	Cisco 7200 platform
C7200_TDM	Cisco 7200 midplane TDM bus
CAIM	Compression Advanced Interface Module (CAIM)
CALL_CONTROL	Call control
CALL_MGMT	Call management subsystem
CALLPROG	Call progress notification subsystem
CALLRECORD	Modem Call Record

Table 1 Facility Codes (continued)

Code	Facility
CALLTRKR	Call Tracker subsystem
CARRIER	DFC carrier
CASA	Cisco Appliance and Services Architecture (CASA)
CBUS	ciscoBus controller
CCH323	Call Control for H323
CCPROXY	H323 proxy
CDM	Cable Data Modem subsystem
CDP	Cisco Discovery Protocol (CDP)
CE3	CE3 port adapter (CE3)
CES	Circuit Emulation Service (CES)
CHOPIN	Cisco Chopin
CHOPIN_ MAINBOARD_ ASYNC_PQII	Chopin Main Board Asynchronous driver
CI	Cisco 7500 platform chassis interface
CIPDUMP	CIP core dump
CIRRUS	CD2430 asynchronous controller
CIRRUS_PM	Slow-speed asynchronous/synchronous port module
CLEAR	Clear facility
CLNS	OSI Connectionless Network Service
CLOCKSW	Cisco 6400 network clocking
CLS	Cisco link services (CNS)
CLSDR	Cisco link services (CNS) driver
CM622_CM155	ATM OC12 and QOC3 line card driver
CMAPP	Call Manager application
CMCC	Cisco Mainframe Channel Connection interfaces
CM_DSPRM	Digital Signal Processor Resource Manager (DSPRM)
CM_MONITOR	UBR900 Cable Access Router Personal Monitor
CNS_AGENT_ CFGCHG	Cisco Network Service (CNS) Configuration Change Agent
CNSES	Cisco Network Services Event Service client
COMP	Point-to-point compression
CONTROLLER	Controller
COT	Continuity test (COT)
CPAD	Compression service adapter (CSA)
CPM	Combo Port Module (CPM) device driver
CRYPTO	Encryption

Table 1 Facility Codes (continued)

Code	Facility
CSM	Call switching module
CSM_VOICE	Call switching mode (CSM) voice subsystem
CT3	Channelized T3 (CT3) port adapter
CTRC	Cisco Transaction Connection
CWAN_ATM	Constellation WAN ATM
CWANLC	Constellation WAN line card
CWANLC_ATM	Constellation WAN ATM Route Processor driver
CWAN_RP	Constellation WAN ATM Route Processor driver
CWPA	Route Processor for Constellation Supervisor router module
CWTLC	Constellation Supervisor router module line card
CWTLC_ATM	ATM line card for Constellation Supervisor router module
DBCONN	Database Connection
DBUS	Data bus
DCU	ATM access concentrator PCI port adapter
DEC21140	DEC21140 Fast Ethernet controller
DFC	Dial feature card
DFC_CARRIER	Dial feature card carrier
DHCPD	Dynamic Host Configuration Protocol (DHCP) server
DIALER	Dial-on-demand routing
DIALPEER_DB	Dial peer configuration
DIALSHELF	Dial shelf messages
DIRECTOR	Director server
DLC	Data-link control
DLSWC	Data-link switching (DLSw)
DLSWMasterSlave	Data-link switching (DLSw) core
DLSWP	Data-link switching (DLSw) peer module
DMA	Direct memory access
DMTDSL	Digital/discrete multitone digital subscriber line (DMTDSL)
DNET	DECnet
DNSSERVER	Domain Name System (DNS) server
DPM	AS5200 T1 BRIMUX
DRIP	Duplicate Ring Protocol
DRP	Director Response Protocol
DRVGRP	Interface driver
DSC	Dial shelf controller (DSC)
DSCC4	DSCC4 driver

Table 1 Facility Codes (continued)

Code	Facility
DSCCLOCK	Dial shelf controller (DSC) clock
DSC_ENV	Cisco AS5800 environment monitor
DSCEXTCLK	Dial shelf controller (DSC) clock
DSCREDCLK	Dial shelf controller (DSC) redundancy clock
DSC_ REDUNDANCY	Cisco AS5800 dial shelf controller (DSC) redundancy
DSI	Cisco AS5800 dial shelf interconnect board
DSIP	Distributed system interconnect protocol
DSIPPF	Nitro Interconnect Protocol
DS_MODEM	FB modem card
DSPDD	Digital Signal Processor Device Driver (DSPDD)
DSPRM	Digital Signal Processor Device Driver (DSPDD)
DSPU	Downstream physical unit
DS_TDM	Dial shelf time-division multiplexing
DSX0	CT1 RBS time slot status
DSX1	Channelized E1 (Europe) and T1(US) telephony standard
DTP	Dynamic Trunking Protocol filtering
DUAL	Enhanced Interior Gateway Routing Protocol
DVMRP	Distance Vector Multicast Routing Protocol
E1T1_MODULE	E1T1 module
EC	Port Aggregation Protocol
EGP	Exterior Gateway Protocol
EHSA	Cisco 6400 Enhanced High System Availability (EHSA)
ENSP	Enhanced Network Services Provider (ENSP)
ENT_API	Entity MIB API
ENVM	Environmental monitor
ENV_MON	Cisco 12000 environmental monitor
EPAD	Encryption port adapter driver (EPAD)
ESWITCH	Ethernet switch port adapter
ETHERNET	Ethernet for the C1000 series
EVENT	Event MIB
EXPRESSION	Expression MIB
FABRIC	Fabric Interface ASIC (FIA)
FALLBACK	VoIP fallback
FAN	Fan
FASTBLK	Fast Block
FB	Cisco AS5800 feature board

Table 1 Facility Codes (continued)

Code	Facility
FB_COREDUMP	Feature board core dump
FBINFO	Cisco AS5800 feature board crash information subsystem
FDDI	Fiber Distributed Data Interface (FDDI)
FECPM	Fast Ethernet (FE) Combination Port Module (CPM) device driver
FIB	IP Cisco Express Forwarding (CEF) radix tree
FILESYS	File system
FLASH	Flash nonvolatile memory
FM	Feature Manager (FM)
FPGA	LS1010 chip-specific
FR	Frame Relay
FREEDM	CT3 trunk card Freedm
FR_ELMI	Frame Relay enhanced Local Management Interface
FR_FRAG	Frame Relay Fragmentation
FR_LMI	Frame Relay Local Management Interface
FS_IPHC	Fast IP Header Compression
FTC_TRUNK	Cisco 3801 platform
FTPSERVER	FTP server processes
FTSP	Fax Telephony Service Provider subsystem
FW	Inspection subsystem
FX1000	FX1000 Gigabit Ethernet controller
GK	GK-H.323 Gatekeeper
GLCFR	Internet router
GPRSFLTMG	Global Packet Radio Service Fault Management
GPRSMIB	Global Packet Radio Service MIB
GRIP	Xerox Network Systems (XNS) Routing Protocol
GRP	Gigabit Route Processor
GRPGE	Gigabit Ethernet Route Processor (RP)
GRP_OC12_CH_DS3	Gigabit Route Processor (GRP) driver
GRPPOS	POS Route Processor
GSR_ENV	Internet router environment monitor
GSRIPC	Internet router IPC service routines
GT64010	GT64010 DMA controller driver
GTP	GPRS Tunnel Protocol
HAWKEYE	Token Ring PCI port adapter
HD	HD64570 serial controller
HDV	High Density Voice (HDV) driver

Table 1 Facility Codes (continued)

Code	Facility
HDX	Half-duplex (HDX) finite state machines (FSM)
HEARTBEAT	Heartbeat
HMM_ASYNC	Hex modem network module asynchronous driver
HOOD	LAN controller 100VG-AnyLAN interface
HP100VG	100VG-AnyLAN port adapter driver
HTSP	Analog voice hardware adaptation layer software
HUB	Cisco Ethernet hub
HW_VPN	Encryption Advanced Interface Module (EAIM)
I82543	Intel 82543 Ethernet/Fast Ethernet/Gigabit Ethernet controller
IBM2692	IBM Token Ring chipset
ICC	Inter-Card Communication
IDBINDEX_SYNC	Interface Desriptor Block (IDB) index synchronization
IDMGR	ID manager
IDS	IP datagram subsystem (IDS)
IDTATM25	IDT ATM25 network module
IF	Interface
IFS	Cisco IOS file system
IGRP	Interior Gateway Routing Protocol
ILACC	ILACC driver
IMA	Inverse multiplexing over ATM (IMA)
INTERFACE_API	Binary API for the interface descriptor block
IOCARD	I/O card-specific
IP	Internet Protocol
IPA	Intelligent port adapter
IPACCESS	IP security
IPC	Interprocess communication
IPCGRP	Route Processor (RP) interprocess communication (IPC)
IPCLC	Internet router line card interprocess communication
IPCOIR	Interprocess communication (IPC) online insertion and removal (OIR)
IPC_RPM	Interprocess communication (IPC)
IPC_RSP_CBUS	Interprocess communication ciscoBus (CBUS)
IPFAST	IP fast switching
IPFLOW	IP flow
IPM_C54X	Voice over IP (VoIP) driver
IPMCAST	Cisco 12000 Series Internet router line card IP multicast
IPM_DSPRM	Digital Signal Processor (DSP) Resource Manager

Table 1 Facility Codes (continued)

Code	Facility
IPM_NV_EEPROM	Integrated port module NVRAM driver
IPMOBILE	IP Mobility
IPRT	IP routing
IP_SNMP	Simple Network Management Protocol specific to IP
IPX	Novelle Internetwork Packet Exchange Protocol (IPX)
ISA	Integrated Services Adapter (ISA)
ISDN	Integrated Services Digital Network (ISDN)
IVR	Interactive Voice Response (IVR)
KERBEROS	Voice over IP (VoIP) for Cisco AS5800
KINEPAK	Voice over IP (VoIP) for Cisco AS5800
L2CAC	Layer 2 CAC
L2R	L2RLY
L3_MGR	Layer 3 manager
LANCE	Local Area Network Controller Ethernet
LANE	LAN Emulation
LANMGR	IBM LAN Network Manager
LAPB	X.25 Link Access Procedure, Balanced
LAPP_OFF	Fax offramp calls
LAPP_ON_MSGS	Fax onramp calls
LAT	DEC local-area transport
LC	Line card (LC)
LCB	Line Control Block (LCB) event process
LCCEF	ATM Cisco Express Forwarding (CEF) adjacency
LCCOREDUMP	Line card core dump subsystems
LCFE	Fast Ethernet line card (LC) driver
LCGE	Gigabit Ethernet line card (LC) driver
LCINFO	Line card crash information subsystem
LCLOG	Internet router line card logger subsystem
LCOC12_CH_DS3	Internet router OC-12-channelized-to-D3 line card
LCPLIM	Line card physical layer interface module
LCPOS	Packet over SONET (POS) line card driver
LES_FDDI	LAN Emulation Server/Fiber Distributed Data Interface
LEX	LAN extension
LIBT2F	Text to fax library
LIBTIFF	Tagged Image File Format (TIFF) library
LINECARD	Node Route Processor (NRP) line card

Table 1 Facility Codes (continued)

Code	Facility
LINEPROTO	Line Protocol
LINK	Data link
LLC	Logical Link Control (LLC), type 2
LLIST	Linked list facility
LNMC	LAN network manager
LPD	Line printer daemon
LSS	LS Switching error message definition
M32X	M32X Basic Rate Interface trunk card
MAILBOX	ChipCom mailbox support
MBRI	Multi-BRI port modules
MBUS	Maintenance bus (MBus)
MBUS_SYS	Maintenance bus (MBus) system
MC3810_DSX1	MC3810 DSX1 subsystem
MCAST	Layer 2 multicast
MDS	Multicast distributed switching
MEMSCAN	Memory scan
MGCP	Media Gateway Control Protocol
MGCP_APP	Media Gateway Control Protocol application-specific
MICA	Modem ISDN Channel Aggregation (MICA)
MIF68840	PCI MC68840 FDDI port adapter
MIMIC	MCOM integrated modem network modules
MISTRAL	Mistral ASIC
MK5	MK5025 serial controller
MMODEM	Integrated modem network module
MODEM	Router shelf modem management
MODEMCALL RECORD	Modem Call Record
MODEM_HIST	Router shelf modem history and tracing
MODEM_NV	Modem NVRAM
MPA68360	VIP Multi-channel Port Adapter
MPLS_ATM_TRANS	ATM Transport over MPLS
MPLS_TE	Label Switch Path (LSP) tunnel
MPLS_TE_PCALC	MPLS TE path calculation facility
MPOA	Multiprotocol over ATM (MPOA)
MROUTE	Multicast route
MSDP	Multicast Source Discovery Protocol
MSPI	Mail Service Provider

Table 1 Facility Codes (continued)

Code	Facility
MUESLIX	Mx serial application-specific integrated circuit (ASIC)
MXT_FREEDM	8PRI/4T board
NBAR	Network-based application recognition (NBAR)
NET_SERV	Networking Services
NETWORK_CLOCK_ SYNCHRONIZATION	Network clock synchronization
NHRP	Next Hop Resolution Protocol
NI2	NI2
NIM	Network interface module
NP	NextPort (NP)
NP_BS	NextPort (NP) Bootstrap and Crash Monitor
NP_EST	NextPort (NP)
NP_MD	NextPort modem driver
NP_MM	NextPort module manager
NP_SPE_DS	NextPort Dial Shelf Service Processing Element (SPE) Manager
NP_SSM	NextPort Session and Service Manager
NRP	Network Routing Processor (NRP)
NSE	Network services engine
NSP	Network Switch Processor (NSP)
NSP_APS	Cisco 6400 node switch processor (NSP)
NSPINT	Network switch processor (NSP) interrupt infrastructure
NSP_OIR	Cisco 6400 online insertion and removal (OIR)
OIR	Online insertion and removal (OIR)
OOBP	Out-of-band port (OOBP)
OSPF	Open Shortest Path First (OSPF)
PA	Port adapter
PAD	X.25 packet assembler/disassembler
PAMMBOX	Platform-independent PAM mailbox serial interface
PARSER	Parser
PERUSER	PPP per-user configuration
PF	Protocol filtering
PGM	Pragmatic General Multicast (PGM)
PGMHOST	Pragmatic General Multicast (PGM) host module
PIM	Protocol Independent Multicast
PLATFORM	Platform-specific
PM	Port Manager
PM_MODEM_HIST	Modem history and tracing

Table 1 Facility Codes (continued)

Code	Facility
PM_MODEM_MAINT	Modem maintenance
PNNI	Private Network-Network Interface
PORT	Port Management
POSDW	Packet over SONET double-wide PCI port adapter driver
POSLC	Packet over SONET line card
POT1E1	Versatile Interface Processor (VIP) multichannel port adapter
POTS	Plain old telephone service (POTS)
PPP	Point-to-Point Protocol (PPP)
PQII	MPC860 quad integrated communications controller
PQUICC	MPC860 quad integrated communications controller
PQUICC_ASYNC	Asynchronous MPC860 quad integrated communications controller
PQUICC_ASYNC_ NOMEM	Integrated Port Module Asynchronous Driver
PQUICC_ETHER	Ethernet MPC860 quad integrated communications controller
PQUICC_ ETHERNET	Ethernet MPC860 quad integrated communications controller
PQUICC_FE	Fast Ethernet MPC860 quad integrated communications controller
PQUICC_SERIAL	Serial MPC860 quad integrated communications controller
PS	Power supply
PV	Private VLAN
PW_WATCHER	Portware Watcher
PXF	Parallel eXpress Forwarding
QA	Queue and accumulator
QEM	QEM driver
QLLC	Qualified Logical Link Control
QM	Quality of service
QUICC	MC68360 quad integrated communications controller
QUICC_ASYNC	Asynchronous MC68360 quad integrated communications controller
QUICC_ETHER	Ethernet MC68360 quad integrated communications controller
QUICC_SERIAL	Serial MC68360 quad integrated communications controller
RAC	Ring Access Controller
RADIO	Radio driver
RADIO_DRIVER	Radio driver
RADIUS	RADIUS
RADIX	Radix
RAIKO	RAIKO-based feature board
RCMD	Remote command

Table 1 Facility Codes (continued)

Code	Facility
Regen	Cisco optical regenerator
Regen_MAINBOARD_ ASYNC_PQUICC	Asynchronous MPC860 quad integrated communications controller for the Cisco optical regenerator
REGISTRY	Registry
RESOURCE_MON	Resource monitor subsystem
RESYNCH	Route Processor Module (RPM) resynchronization process
RIP	IP Routing Information Protocol (RIP)
RLM	Redundant Link Manager (RLM)
RM	Resource Manager
ROUTEMAP_IPC	Route map interprocess communication (IPC)
RPA	Resource Pool Allocation (RPA)
RPC	Remote Procedure Call
RPM	Route Processor Module (RPM)
RP_MLP	Distributed Point-to-Point Protocol (PPP) Multilink
RPM_VIRTUAL_ PORT	RPM virtual port
RPS	Redundant power system
RSP	Route Switch Processor
RSRB	Remote source-route bridging
RS_TDM	Router shelf time-division multiplexing
RTT	Round trip time monitor
RUDP	Reliable User Datagram Protocol
S4T68360	Four-port synchronous serial adapter based on the 68360 processor
SARMGR	Segmentation and reassembly (SARMGR)
SCCP	Signaling connection control part
SCHED	Scheduler
SCP	Downstream physical unit (DSPU)
SDLC	Synchronous Data Link Control
SDLLC	Synchronous Data Logical Link Control (SDLLC) Logical Link Control Type 2 (LLC2) translation
SEC	IP security
SERVICE_MODULE	Service module
SGBP	Stack Group Bidding Protocol
SGCP	Simple Gateway Control Protocol (SGCP)
SGCP_APP	Simple Gateway Control Protocol (SGCP) application-related
SHELF	Router shelf
SIGSM	Signaling Service Manager

Table 1 Facility Codes (continued)

Code	Facility
SLB	Server load balancing
SLB_DFP	Server Load Balancing Dynamic Feedback Protocol agent
SLIP	Serial Line Internet Protocol
SLOTDUMP	Slot dump
SM	State machine (SM)
SMB	SMB
SMF	Software MAC Filter
SMRP	Simple Multicast Routing Protocol
SNAPSHOT	Snapshot dial-on-demand routing
SNASW	Systems Network Architecture (SNA) Switching Services
SNMP	Simple Network Management Protocol (SNMP)
SNMP_MGR	Simple Network Management Protocol (SNMP) proxy
SOI	Simple Network Management Protocol (SNMP) over interprocess communication (IPC)
SONET	Synchronous Optical Network
SONETMIB	Synchronous Optical Network Management Information Base
SONICT	SONIC Ethernet interface-related
SPAN	Spanning Tree Protocol
SPANTREE	Spanning Tree
SPANTREE_FAST	Spanning Tree Fast Convergence
SPARC	3800 SPARC coprocessor subsystem
SPE	Service Processing Element (SPE)
SRCP_APP	Simple Resource Coordination Protocol (SRCP) application
SRP	Spatial Reuse Protocol (SRP)
SSE	Silicon switching engine
SSH	Secure Shell (SSH) Protocol
SSRP	SONET/SDH based SRP Double Wide PCI port adapter driver
STANDBY	Hot Standby Router Protocol (HSRP)
STUN	Serial tunneling
SUBSYS	Software subsystems
SW56	Switch 56K
SWITCH	Switch interface
SW_VLAN	Virtual LAN (VLAN) manager
SYS	Operating system
SYSCTLR	System controller subsystem
SYSLOG_SERVER	Syslog-server file system routines
SYSMGT_RPC	System management

Table 1 Facility Codes (continued)

Code	Facility
T1E1SUNI	PAM port driver
TAC	Terminal Access Controller Access Control System
TAGCON	Tag distribution and control
TAGCOS	Tag switching class of service
TBRIDGE	Transparent bridging
TCATM	ATM TAG control
TCP	Transmission Control Protocol
TDM	Time-division multiplexing (TDM)
TDM_CLOCK_ SYNCHRONIZATION	Time-division multiplexing (TDM) frame clock
TDP	Tag Distribution Protocol
TESTPA	TestPA port adapter
TFIB	Tag Forwarding Information Base
TI1570	PCI/TI1570-based ATM port adapter
TIB	Tag Information Base
TIGER	Error-correcting code (ECC) and parity-related
TLV	EEPROM
TMQ	Inbound terminal port queuing
TN	Telnet
TN3270	TN3270 protocol
TR	Token Ring
TRUNK	E1/T1 trunk card
TRUNK_CLOCK	AS5400 clocking
TRUNK_DFC	Trunk dial feature card
TSP	Tag-switched path (TSP)
TTY	Tty-related for all platforms
TTYDRIVER	Router shelf asynchronous driver
TUN	Tunnel
TXCONN	Cisco Transaction Connection (CTRC)
UBR7200	Cable modem termination system
UCODE	Microcode
UDLD	UniDirectional Link Detection (UDLD) protocol
UNIX	UNIX
UTIL	Utility
VFC	Voice over IP (VoIP)
VINES	Banyan VINES
VIP	Versatile Interface Processor

Table 1 Facility Codes (continued)

Code	Facility
VIPMLP	Multilink PPP
VOICE_FSM	MC3810 voice FSM subsystem
VOICE_RC	MC3810 voice resource subsystem
VOIPAAA	VoIP AAA
VPA	Voice port adapter
VPD	ATM CES (Voice Processor Deck) driver
VPDN	Virtual Private Dialup Networking
VSI_M	Virtual Switch Interface (VSI) master
VTSP	Voice Telephony security parameter index (SPI)
WCCP	Web Cache Communication Protocol (WCCP)
X25	X.25
XCCTSP_VOICE	External Call Control Telephony Service Provider
XCPA	Mainframe Channel Port Adapter
XTAGATM	Extended Tag ATM (XTagATM)

Table 2 Error Message Severity Levels

Level	Description
0 – emergency	System unusable
1 – alert	Immediate action needed
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	Appears during debugging only

Error message severity levels correspond to the keywords assigned by the **logging** global configuration commands that define where and at what level these messages appear. The default is to log messages to the console at the debugging level (7). For more information, see the system configuration chapter and descriptions of the **logging** command in the appropriate Cisco IOS configuration guide and command reference publications.

Table 3 Representation of Variable Fields in Error Messages

Representation	Type of Information
[atalk_address]	AppleTalk address
[atalk_net]	AppleTalk network, either 600 or 600-601
[char]	Single character

Table 3 Representation of Variable Fields in Error Messages (continued)

Representation	Type of Information
[chars]	Character string
[dec]	Decimal number
[enet]	Ethernet address (for example, 0000.FEED.00C0)
[hex]	Hexadecimal number
[inet]	Internet address (for example, 10.0.2.16)
[int]	Integer
[node]	Address or node name
[sci_notation]	Scientific notation
[t-line]	Terminal line number in octal (or decimal if the decimal-TTY service is enabled)
[v-name]	VINES name; or number (hex or decimal)

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
```