

## GLOSSARY

The following glossary of acronyms expands acronyms and initialisms that are used in *Cisco IOS System Messages*.

### Numerals

**10GE** 10 Gigabit Ethernet

### A

**AAA** authentication, authorization, and accounting

**AAL5** ATM adaptation layer 5

**ABM** asynchronous balanced mode

**ABR** Area Border Router

**AC** alternating current

**ACE** Allegro Crypto Engine

**ACIP** ATM Cable Interface Processor

**ACK** acknowledgment

**ACL** access control list

**ACO** alarm cutoff

**ACTLU** activate logical unit

**ACTPU** activate physical unit

**ADSL** asymmetric digital subscriber line

**AFI** Address Family Identifier

**AH** Authentication Header

**AIC** Alarm Interface Controller

**AIM** Advanced Interface Module

**AIM** advanced integration module

**AIP** ATM Interface Processor

**AIS** Alarm indication

**ALC** ATM line card

**ALPS** Airline Product Set

**AMD** Advanced Micro Devices

**ANR** Automatic Network Routing

<b>ANSI</b>	American National Standards Institute
<b>ANY-PHY</b>	Any physical layer-data link layer
<b>AP</b>	access point
<b>AP</b>	authentication proxy
<b>API</b>	application programming interface
<b>APING</b>	APPC Ping
<b>APN</b>	access point name
<b>APPC</b>	Advanced Program-to-Program Communications
<b>APPN</b>	Advanced Peer-to-Peer Networking
<b>APS</b>	automatic protection switching
<b>AQD</b>	average queue depth
<b>ARAP</b>	AppleTalk Remote Access Protocol
<b>ARB</b>	Adaptive Rate-Based
<b>ARP</b>	Address Resolution Protocol
<b>ARQ</b>	automatic repeat request
<b>AS</b>	autonomous system
<b>ASCU</b>	agent-set control unit
<b>ASIC</b>	application-specific integrated circuit
<b>ASP</b>	ATM switch processor
<b>ATA</b>	Advanced Technology Attachment
<b>ATA</b>	Analog Telephone Adaptor
<b>ATF</b>	area to free
<b>ATM</b>	Asynchronous Transfer Mode
<b>AToM</b>	Any Transport over MPLS
<b>AURP</b>	AppleTalk Update-Based Routing Protocol
<b>AutoRP</b>	Auto-Rendezvous Point
<b>AVL</b>	approved vendor list

## B

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<b>BAP</b>	Bandwidth Allocation Protocol
<b>BB</b>	broadband
<b>BBI</b>	begin bracket indicator
<b>BCS</b>	business critical solution
<b>BERT</b>	bit error rate tester
<b>BFR</b>	Bigger, Faster Router
<b>BFRP</b>	big fast route processor
<b>BGP</b>	Border Gateway Protocol
<b>BGPPA</b>	Border Gateway Protocol Policy Accounting
<b>BIC</b>	backplane interface card
<b>BIDI</b>	bidirectional bus
<b>BIND</b>	Berkeley Internet Name Domain
<b>BIP</b>	bit interleaved parity
<b>BIS</b>	Broadband Interface Shelf
<b>BLLI</b>	Broadband Low Layer Information
<b>BMA</b>	Buffer Management ASIC
<b>BOOM</b>	10BASE-T Ethernet LAN interface card
<b>BOOTP</b>	Bootstrap Protocol
<b>BPDU</b>	bridge protocol data unit
<b>BPI</b>	baseline privacy interface
<b>BPVC</b>	Bridged Permanent Virtual Circuit
<b>BR</b>	<i>Undefined</i>
<b>BRI</b>	Basic Rate Interface
<b>BRF</b>	Bridge Relay Function
<b>BSC</b>	Binary Synchronous Communications
<b>BSS</b>	Business Support System
<b>BSTUN</b>	Block Serial Tunnel
<b>BTU</b>	British thermal unit

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**BUS** broadcast-and-unknown server

## C

**CA** certification authority

**CAIM** Compression Advanced Interface Module

**CAM** content-addressable memory

**CAMR** Cisco Access Metro Router

**CAR** *Undefined*

**CAS** channel-associated signaling

**CASA** Cisco Appliance and Services Architecture

**CBAC** Context-Based Access Control

**CBC** Cell Bus Controller

**CBI** Cell Bus Interface

**CBus** CiscoBus

**CBWFQ** Class Based Weighted Fair Queueing

**CCA** Common Configuration Architecture

**CCAPI** call control API

**CCB** call control block

**CCB** configuration control block

**CCO** Cisco Connection Online

**CCW** channel command word

**CDI** Common Driver Interface

**CDL** Converged Data Link

**CDM** cable data modem

**CDP** Cisco Discovery Protocol

**CDR** clock and data recovery

**CE** certificate enrollment

**CEB** Common EMS Base

**CEBI** conditional end bracket indicator

<b>CEF</b>	Cisco Express Forwarding
<b>CES</b>	circuit emulation service
<b>CET</b>	Cisco Encryption Technology
<b>CF</b>	Checkpoint Facility
<b>CFI</b>	Common Flash Interface
<b>CGMP</b>	Cisco Group Management Protocol
<b>CGX</b>	CryptoGraphics eXtensions
<b>CHAP</b>	Challenge Handshake Authentication Protocol
<b>cHPI</b>	compact Host Port Interface
<b>CI</b>	connection identifier
<b>CICS</b>	Customer Information Control System
<b>CIP</b>	Channel Interface Processor
<b>CIR</b>	committed information rate
<b>CIS</b>	Card Information Services
<b>CIU</b>	Communication Interface Unit
<b>CLAW</b>	Common Link Access for Workstations
<b>CLI</b>	command-line interface
<b>CLNS</b>	Connectionless Network Service
<b>CLS</b>	Cisco link services
<b>CLSI</b>	Cisco link services interface
<b>CMCC</b>	Cisco Mainframe Channel Connection
<b>CMNS</b>	Connection Mode Network Service
<b>CMPC</b>	Cisco Multipath Channel
<b>CMTS</b>	cable modem termination system
<b>CNR</b>	Cisco Network Registrar
<b>CNOS</b>	change number of sessions
<b>CNS</b>	Cisco Networking Services
<b>CNSP</b>	Complete Number Sequence PDU
<b>COAPS</b>	Count of APS switchovers
<b>codec</b>	coder-decoder

CoS	class of service
CoSQ	Class of Service Queues
COT	continuity testing
CP	control point
CP	coprocessor
CPA	Channel Port Adapter
CPE	customer premises equipment
CPI	common part indicator
CPI-C	common programming interface for communications
CPK	<i>Undefined</i>
CPM	Combination Port Module
CPUIF	<i>Undefined</i>
CRC	cyclic redundancy check
CRF	Concentrator Relay Function
CRL	certificate revocation list
cRTP	compressed Real-Time Protocol
CRV	call reference value
CSA	compression service adapter
CSAR	Cisco Cell Segmentation and Reassembly
CSC	clock switch card
CSG	Content Services Gateway
CSI	called subscriber identification
CSM	call switching mode
CSM	call switching module
CSNA	Cisco SNA
CSNP	Complete Sequence Number PDU
CSU	channel service unit
CTC	Cisco Transport Controller
CTL	Certificate Trust List
CTRC	Cisco Transaction Connection

<b>CTS</b>	Clear To Send
<b>CV</b>	Cisco View
<b>CWAN</b>	Constellation WAN
<b>CWTLC</b>	Constellation Wan Toaster Line Card
<b>CyBus</b>	Cisco Extended Bus

## D

<b>DAE</b>	data aggregator end
<b>DBus</b>	diagnostic bus
<b>DC</b>	direct-connect
<b>DC</b>	direct current
<b>DCD</b>	data carrier detect
<b>DCE</b>	data communications equipment
<b>dCEF</b>	distributed Cisco Express Forwarding
<b>DDOS</b>	distributed denial of service
<b>DDR</b>	dial-on-demand routing
<b>DDSM</b>	Digital Data Services Manager
<b>DECnet</b>	Digital Equipment Corporation network
<b>DEMUX</b>	demultiplexer
<b>DFC</b>	dial feature card
<b>DFP</b>	Dynamic Feedback Protocol
<b>DFRAC</b>	Dual Frammer and RAC
<b>DHCP</b>	Dynamic Host Configuration Protocol
<b>DHCPv6</b>	Dynamic Host Configuration Protocol, version 6
<b>DIB</b>	Directory Information Base
<b>DIP-4</b>	4-bit Diagonal Interleaved Parity
<b>DLC</b>	data-link connection
<b>DLC</b>	data-link control
<b>DLCI</b>	data-link connection identifier

<b>dLFI</b>	Distributed Link Fragmentation and Interleaving
<b>dLFIoATM</b>	Distributed Link Fragmentation and Interleaving over ATM
<b>dLFIoFR</b>	Distributed Link Fragmentation and Interleaving over Frame Relay
<b>DLR</b>	designated local retransmitter
<b>DLSw</b>	data-link switching
<b>DLU</b>	dependent logical unit
<b>DLU</b>	destination logical unit
<b>DLU</b>	dynamic logical unit
<b>DLUR</b>	dependent logical unit requester
<b>DLUS</b>	dependent logical unit server
<b>DM</b>	dense mode
<b>DM</b>	disconnect mode
<b>DMA</b>	direct memory access
<b>DMAC</b>	destination MAC
<b>DML</b>	distributed multilink
<b>DMLP</b>	Distributed Multilink Point-to-Point Protocol
<b>DNIS</b>	dialed number identification service
<b>DNS</b>	Domain Name Server
<b>DNS</b>	Domain Name Service
<b>DNS</b>	Domain Name System
<b>DOCSIS</b>	Data-over-Cable Service Interface Specifications
<b>DOI</b>	domain of interpretation
<b>DoS</b>	denial of service
<b>DPRAM</b>	dual-port RAM
<b>DR</b>	Designated Router
<b>DR</b>	dynamic replenishment
<b>DRAM</b>	dynamic RAM
<b>DRDA</b>	Distributed Relational Database Architecture
<b>DRiP</b>	Duplicate Ring Protocol
<b>DRP</b>	Director Response Protocol



<b>DRQ</b>	Direct memory access Receive Queue
<b>DS</b>	dial shelf
<b>DSA</b>	delayed stop accounting
<b>DSC</b>	dial shelf control
<b>DSC</b>	dial shelf controller
<b>DSCP</b>	differentiated service code pointer
<b>DSI</b>	dial shelf interconnect
<b>DSI</b>	dial shelf interface
<b>DSIP</b>	Dial Shelf Interconnect Protocol
<b>DSL</b>	digital subscriber line
<b>DSLAM</b>	digital subscriber line ATM multiplexer
<b>DSMP</b>	Distributed Stream Media Processor
<b>DSP</b>	digital signal processor
<b>DSP</b>	Domain Specific Part
<b>DSP</b>	digital signal processor
<b>DSPFARM</b>	digital signal processor farm
<b>DSPM</b>	digital signal processor module
<b>DSPRM</b>	Digital Signal Processor Resource Manager
<b>DSPU</b>	downstream physical unit
<b>DSR</b>	data set ready
<b>DSU</b>	data service unit
<b>DSU</b>	digital service unit
<b>DTE</b>	data terminal equipment
<b>DTP</b>	Dynamic Trunking Protocol
<b>DTQ</b>	Direct memory access Receive Queue
<b>DTR</b>	data terminal ready
<b>DVMRP</b>	Distance Vector Multicast Routing Protocol

**E**

<b>E1T1</b>	E1 line or T1 line
<b>EADI</b>	Extended Availability Drop and Insert
<b>EAIM</b>	Encryption AIM
<b>EAP</b>	Extensible Authentication Protocol
<b>EAPoUDP</b>	Extensible Authentication Protocol over User Datagram Protocol
<b>EARL</b>	enhanced address recognition logic
<b>EC</b>	EtherChannel
<b>ECA</b>	ESCON Channel Adapter
<b>ECC</b>	error-correcting code
<b>ECC</b>	Error-Check Code
<b>ECC</b>	error checking and correction
<b>ECM</b>	Extensible Call Model
<b>ECM</b>	External Control Memory
<b>EEM</b>	Embedded Event Manager
<b>EEPROM</b>	electronically erasable programmable read-only memory
<b>EGP</b>	exterior gateway protocol
<b>EHSA</b>	enhanced high system availability
<b>EID</b>	endpoint identifier
<b>EIGRP</b>	Enhanced Interior Gateway Routing Protocol
<b>EIO</b>	Elastic I/O
<b>ELAN</b>	emulated LAN
<b>ENUM</b>	enumeration
<b>ENVN</b>	Constellation WAN Environmental Monitor
<b>EOBC</b>	Ethernet Out-of-Band Channel
<b>EOC</b>	embedded operations channel
<b>EOF</b>	end-of-frame
<b>EOIR</b>	enhanced online insertion and removal
<b>EoMPLS</b>	Ethernet over MPLS
<b>EOU</b>	Extensible Authentication Protocol over User Datagram Protocol
<b>EPM</b>	External Packet Memory

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<b>ESCON</b>	Enterprise System Connection
<b>ESMP</b>	Even Simpler Management Protocol
<b>ESP</b>	Extended Services Processor
<b>ESP</b>	Extended Services Platform
<b>ESW</b>	Ethernet Switch
<b>ESWILP</b>	Ethernet Switch with Inline Power
<b>ESYS</b>	<i>Undefined</i>
<b>ETM</b>	Enhanced Timing Module
<b>EXAR</b>	Chip manufacturer

## F

<b>FAQ</b>	frequently asked question
<b>FB</b>	feature board
<b>FBB</b>	fast back-to-back
<b>FBB</b>	from backplane buffer
<b>FCFS</b>	First Come First Served
<b>FCIT</b>	Fiber Channel Idle Time
<b>FC-PFQ</b>	feature card per-flow queueing
<b>FCPA</b>	Fibre Channel Port Adapter
<b>FCS</b>	frame check sequence
<b>FDDI</b>	Fiber Distributed Data Interface
<b>FDL</b>	Facility Data Link
<b>FDM</b>	frequency-division multiplexing
<b>FE</b>	Fast Ethernet
<b>FEC</b>	Fast EtherChannel
<b>FECPM</b>	Fast Ethernet Combo Port Module
<b>FI</b>	format indicator
<b>FIA</b>	Fabric Interface ASIC
<b>FIB</b>	forwarding information base

<b>FIFO</b>	first-in, first-out
<b>FIR</b>	Finite Impulse Response
<b>FM</b>	fault monitoring
<b>FMSP</b>	Fax Media Services Provider
<b>FPGA</b>	field-programmable gate array
<b>FPI</b>	Forwarding Path Identifier
<b>FQDN</b>	fully qualified domain name
<b>FQPCID</b>	fully qualified procedure correlation identifier
<b>FREEDM</b>	Frame Engine and Data link Manager
<b>FRMR</b>	Frame Reject
<b>FRoM</b>	FrameRelay over MPLS
<b>FRoMPLS</b>	FrameRelay over MPLS
<b>FRR</b>	Fast ReRoute
<b>FRU</b>	field-replaceable unit
<b>FSIP</b>	Fast Serial Interface Processor
<b>FSM</b>	finite state machine
<b>FTBB</b>	from/to backplane buffer
<b>FTP</b>	File Transfer Protocol

## G

<b>GBIC</b>	Gigabit Interface Converter
<b>GC</b>	global configuration
<b>GDS</b>	general data stream
<b>GE</b>	Gigabit Ethernet
<b>GEFC</b>	Gigabit Ethernet/Fibre Channel
<b>GEIP</b>	Gigabit Ethernet Interface Processor
<b>GGSN</b>	gateway GPRS support node
<b>GKTMP</b>	Gatekeeper Transaction Message Protocol
<b>GLBP</b>	Gateway Load Balancing Protocol

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<b>GLC</b>	gigabit line card
<b>GP</b>	Global Pointer
<b>GPRS</b>	general packet radio service
<b>GRP</b>	gigabit route processor
<b>GSN</b>	GPRS support node
<b>GSR</b>	Internet router
<b>GT95K</b>	<i>Undefined</i>
<b>GTF</b>	Generalized Trace Facility
<b>GTP</b>	GPRS tunneling protocol
<b>GULF</b>	GULF-2488 ASIC

## H

<b>HA</b>	High Availability
<b>HA</b>	Home Agent
<b>HAL</b>	Halcyon
<b>HAPX</b>	Hardware Assisted Packet Classification
<b>HDLC</b>	High-Level Data Link Control
<b>HDV</b>	High Density Voice
<b>HDX</b>	half-duplex
<b>HEC</b>	header error control
<b>HERA</b>	<i>Undefined</i>
<b>HGW</b>	home gateway
<b>HMAC</b>	hash message authentication codes
<b>HMS</b>	Home Media Server
<b>HPI</b>	Host Port Interface
<b>HPR</b>	High-Performance Routing
<b>HQF</b>	Hierarchical Queuing Framework
<b>HSA</b>	high system availability
<b>HSRP</b>	Hot Standby Router Protocol

<b>HSSI</b>	High Speed Serial Interface
<b>HT-FPGA</b>	Hyper Transport Field-Programmable Gate Array
<b>HWAF</b>	Hardware Address Filtering
<b>HWIC</b>	High-Speed WAN Interface Card
<b>HWICD</b>	High-Speed WAN Interface Card, double-wide
<b>HWIDB</b>	hardware interface descriptor block

I

<b>I2C</b>	Inter-Integrated Circuit
<b>IBGP</b>	internal BGP
<b>IBL</b>	Input Buffer Logic
<b>IBOC</b>	in-band bit-oriented code
<b>ICC</b>	Inter Card Communication
<b>ICC</b>	Interface Controller Card
<b>ICMP</b>	Internet Control Message Protocol
<b>ICPIF</b>	Calculated Planning Impairment Factor
<b>ICS</b>	Integrated Communication System
<b>IDAP</b>	Internet Data Access Presentation
<b>IDB</b>	interface descriptor block
<b>IDPROM</b>	Identification PROM
<b>IDS</b>	Internal Data Services
<b>IDT</b>	Integrated Digital Terminal
<b>IDU</b>	indoor unit
<b>IE</b>	information element
<b>IEEE</b>	Institute of Electrical and Electronics Engineers
<b>IETF</b>	Internet Engineering Task Force
<b>IF</b>	intermediate frequency
<b>IGMP</b>	Internet Group Management Protocol
<b>IGRP</b>	Interior Gateway Routing Protocol

IIC	<i>Undefined</i>
IIF	Input interface
IIH	IS to IS Hello PDU
IIN	<i>Undefined</i>
IKE	Internet Key Exchange
ILMI	Integrated Local Management Interface
ILP	inline power
ILPM	inline power module
IMA	inverse multiplexing over ATM
IMSI	international mobile subscriber identity
IOB	<i>Undefined</i>
IP	Internet Protocol
IPC	interprocess communication
IPDC	Internet Protocol device control
IPDLC	IP data link connection
IPE	Inter-PRE Ethernet
IPG	Inter Packet Gap
IPHC	IP Header Compression
IPM	Cisco Internetwork Performance Monitor
IPPCP	IP Payload Compression Protocol
IPRM	IP Router Manager
IPS	IP Storage
IPSec	IP Security
IPv6	IP version 6
IPX	Internetwork Packet eXchange
ISA	Integrated Services Adapter
ISAKMP	Internet Security Association and Key Management Protocol
ISDN	Integrated Services Digital Network
ISE	Internet Services Engine
IS-IS	Intermediate System-to-Intermediate System

<b>ISL</b>	Inter-Switch Link
<b>ISR</b>	intermediate session routing
<b>ISRHOG</b>	Interrupt Service Routine HOG
<b>ISSU</b>	In-Service Software Upgrade
<b>IST</b>	Internal Spanning Tree
<b>IVR</b>	interactive voice response
<b>IXP</b>	Internet Exchange Point

## L

<b>L2</b>	Layer 2
<b>L2F</b>	Layer 2 Forwarding
<b>LAC</b>	L2TP access concentrator
<b>LACP</b>	Link Aggregate Control Protocol
<b>LAIS</b>	SONET Line level Alarm Indication Signal
<b>LANCE</b>	Local Area Network Controller Ethernet
<b>LANE</b>	LAN Emulation
<b>LAPB</b>	Link Access Procedure, Balanced
<b>LAT</b>	local-area transport
<b>LC</b>	line card
<b>LCATM</b>	Label controlled ATM
<b>LCB</b>	Line Control Block
<b>LCC</b>	Line card Configuration Coordinator
<b>LCD</b>	liquid crystal display
<b>LCDOS</b>	line card operating system software
<b>LCI</b>	local channel identifier
<b>LCN</b>	logical channel number
<b>LDLC</b>	LocalDirector link control
<b>LDN</b>	local directory number
<b>LDP</b>	Label Distribution Protocol



<b>LEC</b>	LANE Client
<b>LECS</b>	LANE Configuration Server
<b>LED</b>	light-emitting diode
<b>LEN</b>	low-entry networking
<b>LES</b>	LANE Server
<b>LFD</b>	Label Forwarding Database
<b>LFSID</b>	local-form session identifier
<b>LIR</b>	link incident report
<b>LIU</b>	line interface unit
<b>LLC</b>	logical link control
<b>LLC2</b>	Logical Link Control, type 2
<b>LLD</b>	low level design
<b>LMI</b>	Local Management Interface
<b>LNM</b>	LAN Network Manager
<b>LNS</b>	L2TP network server
<b>LOF</b>	Loss of Frame
<b>LOS</b>	Loss of Signal
<b>LPD</b>	line printer daemon
<b>LRC</b>	line card redundancy controller
<b>LRJ</b>	location rejection
<b>LRQ</b>	location request
<b>LS</b>	LightStream
<b>LSA</b>	link-state advertisement
<b>LSD</b>	label switching database
<b>LSIPC</b>	LightStream interprocess communication
<b>LSP</b>	label switch path
<b>LSP</b>	link-state packet
<b>LSP</b>	Link-State PDU
<b>LSS</b>	LightStream switching
<b>LU</b>	logical unit

<b>LU6.2</b>	logical unit type 6.2
<b>LVC</b>	label switched controlled virtual circuits
<b>LWAPP</b>	Lightweight Access Point Protocol
<b>LYRA</b>	Constellation+ Advanced Forwarding Engine Layer2

## M

<b>MAC</b>	Media Access Control
<b>MAR</b>	Midrange Access Routers
<b>MARS</b>	Multicast Address Resolution Server
<b>MATM</b>	MAC Address Table Manager
<b>MAU</b>	media attachment unit
<b>MAX</b>	maximum
<b>MBE</b>	multiple-bit error
<b>MBRI</b>	Multi-BRI
<b>MBRI</b>	Multiport Basic Rate Interface
<b>MBus</b>	maintenance bus
<b>MCD</b>	<i>Undefined</i>
<b>MCNS</b>	Multimedia Cable Network System Partners, Ltd.
<b>MCOM</b>	Microcom carrier card
<b>MCDMA</b>	Multi-Channel DMA
<b>MCSC</b>	Multi-Channel Serial Controller
<b>MD5</b>	message digest 5
<b>MDB</b>	Multicast Descriptor Block
<b>MDL</b>	maintenance data link
<b>MDRR</b>	Modified Deficit Round Robin
<b>MDS</b>	multicast distributed switching
<b>MDSS</b>	Multicast Distributed Shortcut Switching
<b>MDT</b>	multicast distribution tree
<b>MEMD</b>	memory device

<b>MFD</b>	Multicast Fast Drop
<b>MFE</b>	Multi-port Fast Ethernet
<b>MFI</b>	MPLS forwarding infrastructure
<b>MFIB</b>	Multicast Forwarding Information Base
<b>MGCP</b>	Media Gateway Control Protocol
<b>MGID</b>	<i>Undefined</i>
<b>MIB</b>	Management Information Base
<b>MIB/SMT</b>	Management Information Base/Station Management
<b>MIC</b>	media interface connector
<b>MICA</b>	Modem ISDN channel aggregation
<b>MID</b>	Multiplex ID
<b>MIDB</b>	multicast interface data block
<b>MII</b>	media-independent interface
<b>MLD</b>	Multicast Listener Discovery
<b>MLP</b>	Multilink Point-to-Point Protocol
<b>MLPPP</b>	Multilink Point-to-Point Protocol
<b>MLS</b>	multilayer switching
<b>MLSM</b>	multi-layer switching for multicast
<b>MLTG</b>	multilink trunk group
<b>MMAP</b>	memory map
<b>MMC</b>	<i>Undefined</i>
<b>MMI</b>	Modem Management Interface
<b>MMLS</b>	multicast multilayer switching
<b>MNCNS</b>	Multimedia Cable Network System Partners, Ltd.
<b>MNP4</b>	Microcom Networking Protocol 4
<b>MP</b>	Multilink Protocol
<b>MPC</b>	MultiPath Channel
<b>MPC</b>	Multiprotocol-over-ATM client
<b>MPLS</b>	Multiprotocol Label Switching
<b>MPOA</b>	Multiprotocol over ATM

<b>MPPE</b>	Microsoft Point to Point Encryption
<b>MPS</b>	Multiprotocol-over-ATM server
<b>MQC</b>	Modular Quality of Service (QoS) command line interface (CLI)
<b>MRIB</b>	Multicast Routing Information Base
<b>MRP</b>	Multiservice Routing Processor
<b>MPT</b>	Ministry of Posts and Telecommunications
<b>mroute</b>	Multicast route
<b>MRW</b>	<i>Undefined</i>
<b>MS</b>	Management Services
<b>MS</b>	mobile subscriber
<b>MSC</b>	Modular Services Card
<b>MSDP</b>	Multicast Source Discovery Protocol
<b>MSFC</b>	Multilayer Switch Feature Card
<b>MSP</b>	Media Service Provider
<b>MSR</b>	Multiservice Switch Router
<b>MSS</b>	maximum segment size
<b>MST</b>	Multiple Spanning-Tree Protocol
<b>MSTOO</b>	multiple spanning tree root
<b>Mtree</b>	matings tree
<b>MTU</b>	maximum transmission unit
<b>MURIB</b>	Multicast Unicast Routing Information Base
<b>MVIP</b>	Versatile Interface Processor
<b>MW</b>	<i>Undefined</i>
<b>MWAM</b>	Multi-Processor WAN Application Module
<b>Mx</b>	Mueslix

## N

<b>NAK</b>	negative acknowledgment
<b>NAM</b>	Network Analysis Module

<b>NAS</b>	network access server
<b>NAT</b>	Network Address Translation
<b>NBAR</b>	network-based application recognition
<b>NBP</b>	Name Binding Protocol
<b>NCE</b>	network connection endpoint
<b>NCP</b>	Network Control Program
<b>NCP</b>	Network Control Protocol
<b>NEAT</b>	E1 and T1 processor
<b>NFAS</b>	Non Facility Associated Signaling
<b>NHDR</b>	Network Layer Header
<b>NHRP</b>	Next Hop Resolution Protocol
<b>NHS</b>	Next Hop Server
<b>NIM</b>	network interface module
<b>NIP</b>	Nitro Interconnect Protocol
<b>NLP</b>	network-layer packet
<b>NLSP</b>	NetWare Link Services Protocol
<b>NM</b>	network module
<b>NM-HD</b>	high density network module
<b>NME</b>	Network Management Ethernet
<b>NMI</b>	nonmaskable interrupt
<b>NMP</b>	Network Management Processor
<b>NMS</b>	network management system
<b>NMVT</b>	network management vector transport
<b>NNI</b>	Network-to-Network Interface
<b>NNS</b>	network node server
<b>NPE</b>	network processing engine
<b>NRM</b>	normal response mode
<b>NRP</b>	Network Routing Processor
<b>NRP</b>	node route processor
<b>NSAP</b>	network service access point

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<b>NSDB</b>	Network Security Database
<b>NSE</b>	network services engine
<b>NSF</b>	Non-stop forwarding
<b>NSP</b>	Network Switch Processor
<b>NSP</b>	node switch processor
<b>NTP</b>	Network Time Protocol
<b>NVRAM</b>	nonvolatile RAM

## O

<b>OAM</b>	Operation, Administration, and Maintenance
<b>OBL</b>	Output Buffer Logic
<b>OC</b>	Optical Carrier
<b>ODU</b>	outdoor unit
<b>OER</b>	Optimized Edge Routing
<b>OFC</b>	open fiber control
<b>OIF</b>	Output interface
<b>OIR</b>	online insertion and removal
<b>ONS</b>	Optical Networking Systems
<b>OOBP</b>	out-of-band port
<b>OOD</b>	Online Offline Diagnostics
<b>OOS</b>	out of service
<b>ORF</b>	outbound route filter
<b>OSCP</b>	Optical Supervisory Channel Protocol
<b>OSM</b>	Optical Services Module
<b>OSP</b>	Open Settlements Protocol
<b>OSPF</b>	Open Shortest Path First
<b>OSS</b>	Operations Support System

**OU** organizational unit

## **P**

**PA** port adapter

**PAD** packet assembler/disassembler

**PAGP** Port Aggregation Protocol

**PAM** port adapter module card

**PAM** pulse amplitude modulation

**PAN** 4-Port and (8+1) Port ESWILP HWIC

**PAP** Password Authentication Protocol

**PARAM1** *Undefined*

**PARAM2** *Undefined*

**PASCB** port adapter system control block

**PASV** passive mode FTP

**PBP** packet-by-packet

**PC** program counter

**PCA** Parallel Channel Adapter

**PCF** Packet Control Function

**PCF** Profile Configuration File

**PCI** protocol control information

**PCID** procedure correlation identifier

**PCM** pulse code modulation

**PCMCIA** Personal Computer Memory Card International Association

**PCR** peak cell rate

**PDP** policy decision point

**PDSN** Packet Data Serving Node

**PDU** protocol data unit

**PEMF** Power Entry Module and Filter

**PF** protocol filtering

<b>PGM</b>	Pragmatic General Multicast
<b>PHAD</b>	Physical Layer Interface Module (PLIM) header add-drop ASIC
<b>PHY</b>	physical layer interface
<b>PIC</b>	Peripheral Interface Controller
<b>PIC</b>	point in call
<b>PIE</b>	protocol information element
<b>PIF</b>	Packet Input FIFO
<b>PIM</b>	Protocol Independent Multicast
<b>PIM-SM</b>	<i>Undefined</i>
<b>PIMv2</b>	Protocol Independent Multicast version 2
<b>PIU</b>	PCM Interface Unit
<b>PKCS</b>	Public Key Cryptographic Standards
<b>PKI</b>	public key infrastructure
<b>PLD</b>	programmable logic device
<b>PLIM</b>	Physical Layer Interface Module
<b>PLU</b>	primary logical unit
<b>PLX</b>	PCI to local bus bridge vendor
<b>PM</b>	port management
<b>PMA</b>	Packet Memory Access
<b>PMC</b>	PCI Mezzanine Card
<b>PMON</b>	Performance Monitor
<b>PNNI</b>	Private Network-Network Interface
<b>PNSP</b>	Partial Number Sequence PDUs
<b>POE</b>	Power Over Ethernet
<b>PoS</b>	Packet over SONET
<b>PoS</b>	Packet over SONET/SDH
<b>POST</b>	power-on self test
<b>POT1E1</b>	Packet Over T1 E1
<b>POTS</b>	plain old telephone service
<b>PPC</b>	primary point code



<b>PPP</b>	Point-to-Point Protocol
<b>PQUICC</b>	Quad Integrated Communications Controller
<b>PRE</b>	Performance Routing Engine
<b>PRI</b>	Primary Rate Interface
<b>PROM</b>	programmable read-only memory
<b>PRP</b>	Performance Route Processor
<b>PSA</b>	Packet Switching ASIC
<b>PSC</b>	processor and switch card
<b>PSM</b>	Protection Switch Module
<b>PSNP</b>	Partial Sequence Number PDU
<b>PTB</b>	Peer Transaction Bus
<b>PTM</b>	Packet Transfer Mode
<b>PU</b>	physical unit
<b>PU 2.0</b>	Physical Unit type 2.0
<b>PU 2.1</b>	Physical Unit type 2.1
<b>PVC</b>	permanent virtual circuit
<b>PVC</b>	permanent virtual connection
<b>PVDM</b>	Packet Voice DSP Module
<b>PVID</b>	Port VLAN ID
<b>PVP</b>	permanent virtual path
<b>PVST+</b>	Per-VLAN Spanning Tree
<b>PXF</b>	Parallel eXpress Forwarding
<b>PXM</b>	Processor Switching Module

## Q

<b>QA</b>	queue and accumulator
<b>QEM</b>	QEM driver
<b>QLLC</b>	Qualified Logical Link Control
<b>QM</b>	QoS manager

	<b>QMAC</b>	Quad Token Ring Media Access Controller ASIC
	<b>QoS</b>	quality of service
	<b>QSTAT</b>	<i>Undefined</i>
<b>R</b>		
	<b>RA</b>	registration authority
	<b>RAC</b>	Resource Availability Confirm
	<b>RAC</b>	Ring Access Controller
	<b>RADIUS</b>	Remote Authentication Dial-In User Service
	<b>RARP</b>	Reverse Address Resolution Protocol
	<b>RAS</b>	Registration, Admission, and Status
	<b>RAS</b>	remote access server
	<b>RBCP</b>	Router Blade Configuration Protocol
	<b>RBD</b>	receive buffer descriptor
	<b>RBS</b>	Robbed-Bit Signaling
	<b>RCP</b>	remote copy protocol
	<b>RDB</b>	relational database
	<b>RE</b>	<i>Undefined</i>
	<b>RED</b>	<i>Undefined</i>
	<b>REQACTPU</b>	request to activate a physical unit
	<b>REQDACTPU</b>	request to deactivate a physical unit
	<b>REQ(D)ACTPU (RSP)</b>	Route Switch Processor request to activate or deactivate a physical unit
	<b>REXEC</b>	remote execution
	<b>RF</b>	radio frequency
	<b>RF</b>	Redundancy frequency
	<b>RIB</b>	Routing Information Base
	<b>RIM</b>	<i>Undefined</i>
	<b>RIP</b>	Routing Information Protocol
	<b>RISC</b>	reduced instruction set computing
	<b>RJE</b>	remote job entry
	<b>RLDRAM</b>	<i>Undefined</i>

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<b>RLM</b>	Redundant Link Manager
<b>RMON</b>	Remote Network Monitoring
<b>RNR</b>	receive not ready
<b>ROM</b>	read-only memory
<b>RP</b>	Route Processor
<b>RPA</b>	Resource Pool Allocation
<b>RPC</b>	Remote Procedure Call
<b>RPF</b>	Reverse Path Forwarding
<b>RPM</b>	Route Processor Module
<b>RPM</b>	Resource Pool Management
<b>RPMXF</b>	Route Processor Module, express forwarding
<b>RPR</b>	Route Processor Redundancy
<b>RPR+</b>	Route Processor Redundancy plus
<b>RPS</b>	Ring Parameter Server
<b>RR</b>	receive ready
<b>RRP</b>	Redundant Route Processor
<b>RS</b>	router shelf
<b>RS-232</b>	EIA/TIA-232
<b>RSA</b>	Rivest, Shamir, and Adelman (a public-key cryptographic system)
<b>RSC</b>	route switch controller
<b>RSCP</b>	RSC front panel push button
<b>RSCV</b>	Route Selection Control Vector
<b>rsh</b>	remote shell
<b>RSM</b>	Route Switch Module
<b>RSP</b>	Route Switch Processor
<b>RSPAN</b>	Remote Switched Port Analyzer
<b>RSRB</b>	remote source-route bridging
<b>RSRC</b>	Resource
<b>RSVP</b>	Resource Reservation Protocol
<b>RTAL</b>	Receive Telecombus Aligner/Interface

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<b>RTC</b>	real-time console
<b>RTM</b>	Real Time Monitor
<b>RTP</b>	Rapid Transport Protocol
<b>RTP</b>	Real-Time Transport Protocol
<b>RTR</b>	response time reporter
<b>RTS</b>	Request To Send
<b>RTT</b>	round-trip time
<b>RTTMON</b>	Round Trip Time Monitor
<b>RU</b>	request/response unit
<b>RUDP</b>	Reliable User Data Protocol
<b>Rx</b>	Receive
<b>RXP</b>	Resonate Exchange Protocol

## S

<b>SA</b>	security association
<b>SA</b>	Source-Active
<b>SA</b>	Service Assurance
<b>SADB</b>	security association database
<b>SAF24</b>	SAR adapter FPGA OC24
<b>SAFI</b>	Subsequent Address Family Identifier
<b>SAP</b>	service access point
<b>SAR</b>	segmentation and reassembly
<b>SBE</b>	single-bit error
<b>SC</b>	<i>Undefined</i>
<b>SCB</b>	storage control blocks
<b>SCB</b>	system control board
<b>SCC</b>	Signaling Connection Control
<b>SCCP</b>	Signaling Connection Control Part
<b>SCM</b>	Service Connection Manager

<b>SCP</b>	Service Control Point
<b>SCP</b>	Switch-Module Configuration Protocol
<b>SCP</b>	System Control Protocol
<b>SCR</b>	sustained cell rate
<b>SDCC</b>	Serial Data Communication Channel
<b>SDEE</b>	Security Device Event Exchange
<b>SDF</b>	Signature Definition File
<b>SDLC</b>	Synchronous Data Link Control
<b>SDLLC</b>	Synchronous Data Logical Link Control
<b>SDM</b>	Security Device Manager
<b>SDP</b>	Session Description Protocol
<b>SDP</b>	Shelf Discovery Protocol
<b>SDRAM</b>	synchronous DRAM
<b>SDT</b>	Start Data Transfer
<b>SEF</b>	severely errored frames
<b>SERDES</b>	Serializer-Deserializer
<b>SFC</b>	switch fabric card
<b>SFP</b>	Small Form Factor Pluggable
<b>SGBP</b>	Stack Group Bidding Protocol
<b>SGCP</b>	Simple Gateway Control Protocol
<b>SGSN</b>	Serving GPRS Support Node
<b>SID</b>	Service ID
<b>SIM</b>	<i>Undefined</i>
<b>SIMM</b>	single in-line memory module
<b>SIP</b>	Session Initiation Protocol
<b>SLARP</b>	Serial Line Address Resolution Protocol
<b>SLB</b>	Server Load Balancing
<b>SLC</b>	signaling link code
<b>SLCI</b>	Signaling Link Code Interface
<b>SLIC</b>	Subscriber Line Interface Circuit

<b>SLIP</b>	Serial Line Internet Protocol
<b>SLU</b>	secondary logical unit
<b>SM</b>	sparse mode
<b>SM</b>	state machine
<b>SMBus</b>	System Management bus
<b>SMDS</b>	Switched Multimegabit Data Service
<b>SME</b>	Signature Micro Engine
<b>SMRP</b>	Simple Multicast Routing Protocol
<b>SMTF</b>	Simple Mail Transfer Protocol
<b>SNA</b>	Systems Network Architecture
<b>SNASw</b>	SNA Switching Services
<b>SNMP</b>	Simple Network Management Protocol
<b>SNR</b>	signal-to-noise ratio
<b>SNRM</b>	Set Normal Response
<b>SO-DIMM</b>	Small Outline Dual In-line Memory Modules
<b>SOF</b>	start-of-frame
<b>SOP</b>	Second-Generation Packet-over-SONET
<b>SP</b>	Switch Processor
<b>SPA</b>	Shared Port Adapter
<b>SPAN</b>	Switched Port Analyzer
<b>SPD</b>	Security Policy Database
<b>SPE</b>	service processing element
<b>SPI</b>	security parameter index
<b>SPI4</b>	<i>Unavailable.</i>
<b>SPID</b>	service profile identifier
<b>SPM</b>	source path message
<b>SPMM</b>	SIMM DSP module
<b>SRA</b>	Seamless Rate Adaptation
<b>SRA</b>	source routing accelerator
<b>SRAM</b>	static RAM

<b>SRC</b>	Switch Redundancy Controller
<b>SRCP</b>	Simple Resource Coordination Protocol
<b>SRDB</b>	source route relational database
<b>SRIC</b>	Sculptor Input Controller
<b>SRIF</b>	Sculptor Interface
<b>SROC</b>	Sculptor Output Controller
<b>SRP</b>	Server Redundancy Protocol
<b>SRP</b>	Spatial Reuse Protocol
<b>SRR</b>	Single Ring Recovery Protocol
<b>SSA</b>	Serial Storage Architecture
<b>SSCOP</b>	Service-Specific Connection-Oriented Protocol
<b>SSCP</b>	system services control points
<b>SSE</b>	silicon switching engine
<b>SSG</b>	Service Selection Gateway
<b>SSH</b>	Secure Shell
<b>SSL</b>	Secure Socket Layer
<b>SSM</b>	Single State Mode
<b>SSM</b>	Source Specific Multicast
<b>SSO</b>	Stateful SwitchOver
<b>SSP</b>	Silicon Switch Processor
<b>SSP</b>	state synchronization protocol
<b>SSRAM</b>	synchronous static RAM
<b>SSRP</b>	Simple Server Redundancy Protocol
<b>SSS</b>	Subscriber Service Switching
<b>SSTP</b>	Shared Spanning-Tree Protocol
<b>STP</b>	Spanning-Tree Protocol
<b>STUN</b>	serial tunnel
<b>SU</b>	service unit
<b>SU</b>	signaling unit
<b>SVC</b>	switched virtual circuit

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<b>SVI</b>	switched virtual interface
<b>SVIP</b>	Versatile Interface Processor 2
<b>SW56</b>	switched 56K
<b>SWIDB</b>	software for Interface Descriptor Block
<b>SYSMGT</b>	system management

## T

<b>TAC</b>	Cisco Technical Assistance Center
<b>TACACS</b>	Terminal Access Controller Access Control System
<b>TAZ-B</b>	<i>Undefined</i>
<b>TBB</b>	to backplane buffer
<b>TBI</b>	Ten Bit Interface
<b>TBM</b>	Transmit Buffer Manager
<b>TCA</b>	telecommunications access method
<b>TCATM</b>	Tag Control ATM
<b>TCAM</b>	Ternary Content Addressable Memory
<b>TCB</b>	Transmission Control Block
<b>TCL</b>	Toolkit Command Language
<b>TCP</b>	Transmission Control Protocol
<b>TDM</b>	time-division multiplexing
<b>TDP</b>	Tag Distribution Protocol
<b>TDR</b>	time domain reflectometer
<b>TE</b>	terminal equipment
<b>TE</b>	tunnel equipment
<b>TE3</b>	<i>Undefined</i>
<b>TED</b>	Tunnel Endpoint Discovery
<b>TEI</b>	terminal endpoint identifier
<b>TFIB</b>	Tag Forwarding Information Base
<b>TFTP</b>	Trivial File Transfer Protocol



<b>TG</b>	transmission group
<b>TIB</b>	Tag Information Base
<b>TIM</b>	Tree Information Base
<b>TIC</b>	Toaster Input Controller
<b>TID</b>	Terminal Identifier
<b>TIFF</b>	tagged image file format
<b>TLB</b>	translation look-aside buffer
<b>TLV</b>	type, length, value
<b>TMQ</b>	terminal port queueing
<b>ToS</b>	Type of Service
<b>TP</b>	Transport Protocol
<b>TR</b>	Token Ring
<b>TRANGE</b>	time-range
<b>TSC</b>	Tag Switch Controller
<b>TSCAM</b>	Traffic Shaping Carrier Access Module
<b>TSI</b>	transmitting subscriber information
<b>TSP</b>	tag-switched path
<b>TT</b>	<i>Undefined</i>
<b>TT2RP</b>	Toaster-to-RP
<b>TTAL</b>	Transmit Telecombus Aligner/Interface
<b>TTL</b>	time to live
<b>TVC</b>	tag switched controlled virtual circuit
<b>TVC</b>	tag virtual circuits
<b>Tx</b>	transmit

## U

<b>UA</b>	unnumbered acknowledgement
<b>UART</b>	Universal Asynchronous Receiver/Transmitter
<b>UCB</b>	University of California, Berkeley

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<b>Ucode</b>	Microcode
<b>UDF</b>	<i>Undefined</i>
<b>UDLD</b>	UniDirectional Link Detection
<b>UDP</b>	User Datagram Protocol
<b>UPF</b>	<i>Undefined</i>
<b>UPS</b>	uninterruptible power supply
<b>URM</b>	Universal Router Module
<b>uRPF</b>	Unicast Reverse Path Forwarding

## V

<b>VACL</b>	VLAN access control list
<b>VAD</b>	voice activity detection
<b>VBR</b>	variable bit rate
<b>VBR-nRT</b>	variable bit rate—non-real time
<b>VC</b>	virtual circuit
<b>VCC</b>	virtual channel connection
<b>VCD</b>	virtual circuit descriptor
<b>VCCI</b>	Virtual Channel Common Index
<b>VCHAN</b>	virtual channel
<b>VCI</b>	virtual channel identifier [ <i>ATM only</i> ]
<b>VCN</b>	virtual circuit number
<b>VDSL</b>	very high bitrate digital subscriber line
<b>VFC</b>	voice feature card
<b>VFC</b>	VoIP feature card
<b>VFR</b>	Virtual Fragment Reassembly
<b>VG</b>	voice gateway
<b>VIC</b>	voice interface card
<b>VIP</b>	Versatile Interface Processor
<b>VLAN</b>	virtual LAN

<b>VMAC</b>	Virtual MAC
<b>VMPS</b>	VLAN Membership Policy Server
<b>VMR</b>	value, mask, result
<b>VNM</b>	Voice Network Manager
<b>VoIP</b>	Voice over IP
<b>VP</b>	virtual path
<b>VPC</b>	virtual path connection
<b>VPD</b>	voice packet driver
<b>VPDN</b>	Virtual Private Dialup Network
<b>VPI</b>	virtual path identifier
<b>VPN</b>	Virtual Private Network
<b>VPNv4</b>	Virtual Private Network version 4
<b>VQP</b>	VLAN Query Protocol
<b>VQPC</b>	VQP client
<b>VRF</b>	VPN Routing and Forwarding
<b>VRRP</b>	Virtual Router Redundancy Protocol
<b>VSI</b>	Virtual Switch Interface
<b>VSM</b>	Voice Service Manager
<b>VT</b>	virtual terminal
<b>VTAM</b>	virtual telecommunications access method
<b>VTMS</b>	Versatile Traffic Management and Shaping
<b>VTP</b>	VLAN Trunk Protocol
<b>VTSP</b>	voice telephony service provider
<b>VTT</b>	voltage termination
<b>VWIC</b>	Voice/WAN interface card

## W

<b>WCCP</b>	Web Cache Communication Protocol
<b>WCS</b>	writable control store

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<b>WDS</b>	Wireless Domain Services
<b>WIC</b>	WAN interface card
<b>WLM</b>	Workload Manager
<b>WRED</b>	Weighted Random Early Detection
<b>WWW</b>	World Wide Web

## **X**

<b>XCA</b>	external communication adapter
<b>XCVR</b>	transceiver
<b>XDR</b>	eXternal Data Representation
<b>XID</b>	exchange identification
<b>XML</b>	eXtensible Markup Language
<b>XNS</b>	Xerox Network Systems
<b>XOT</b>	X.25-over-TCP
<b>XTagATM</b>	extended tag ATM

## **Z**

<b>ZBT</b>	zero bus turnaround
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