

# Abbreviations and Acronyms



Abbreviation or Acronym	Term
<b>A</b>	
AAA	authentication, authorization, and accounting
AAAA	authentication, authorization, accounting, and address assignment
AAL	ATM adaptation layer
ABR	area border router
AC	alternating current; access concentrator
ACCM	Async Control Character Map
ACFC	Address and Control Field Compression
ADSL	asymmetric digital subscriber line
AESA	ATM end system address
AF	assured forwarding
AFI	authority and format identifier
AH	Authentication Header
AIS	alarm indication signal
AIS-L	alarm indication signal – line
AIS-P	alarm indication signal – path
ANSI	American National Standards Institute
API	Application Programming Interface
APS	Automatic Protection Switching
ARP	Address Resolution Protocol
AS	autonomous system; Australia (re standards compliance)
ASBR	autonomous system boundary router

<b>Abbreviation or Acronym</b>	<b>Term</b>
ASCII	American Standard Code for Information Interchange
ASIC	application specific integrated circuit
ASN	autonomous system number
ASP	access service provider
ATM	Asynchronous Transfer Mode
AVP	attribute value pair
<b>B</b>	
BDR	backup designated router
BECN	backward explicit congestion notification
BER	basic encoding rules
BERT	bit error rate test
BGP	Border Gateway Protocol
BIP	bit interleaved parity
BITS	building integrated timing supply
BMA	broadcast multiaccess
BOOTP	BOOTstrap Protocol
B-RAS	Broadband Remote Access Server
BS	base station
BSS	business support system
BW	bandwidth
<b>C</b>	
CA	certificate authority
CAC	call admission control (MPLS); connection admission control (ATM)
CAR	committed access rate
CARS	committed access rate service
CBC	cipher block chaining
CBF	connection-based forwarding
CBQ	class-based queuing
CBR	constant bit rate
CC	continuity check
CCITT	International Telegraph and Telephone Consultative Committee
CDVT	cell delay variation time
CE	customer edge device; Council of Europe
CHAP	Challenge Handshake Authentication Protocol

<b>Abbreviation or Acronym</b>	<b>Term</b>
CIDR	classless interdomain routing
CISPR	International Special Committee on Radio Interference
CLACL	classifier control list
CLEC	competitive local exchange carrier
CLI	command line interface
CLNP	Connectionless Network Protocol
CLNS	Connectionless Network Service
CLP	cell loss priority
CM	cable modem
CMTS	cable modem termination system
CNM	customer network management
CO	central office
cOC	channelized optical carrier
COPS	Common Open Policy Service (protocol)
CORBA	common object request broker architecture
CoS	class of service
CPE	customer premises equipment
CPU	central processing unit
CRC	cyclic redundancy check
CR-LDP	Constraint-based Routed Label Distribution Protocol
CR-LSP	constraint-based routed label-switched path
CSNP	complete sequence numbers PDU (protocol data unit)
CSU	channel service unit
CT1, CT3	channelized T1, T3
CTI	computer telephony integration
CTS	clear to send
CTT	connection traffic table
CUL	agreement between Underwriter Laboratories and Canadian Standards Association for joint product safety approval
CV	coding violation
<b>D</b>	
DA/SA	destination address/source address
DC	direct current
DCC	Data Country Code
DCD	data carrier detect

Abbreviation or Acronym	Term
DCE	data communications equipment
DE	discard eligibility
DES; 3DES	Data Encryption Standard; triple DES
DF	designated forwarder; don't fragment (bit)
DHCP	Dynamic Host Configuration Protocol
DIS	designated intermediate system
DLCI	data-link connection identifier
DLCMI	data-link connection management interface
DNS	Domain Name System
DOCSIS	data-over-cable service interface specifications
DR	designated router
DS	digital signal; DiffServ
DSL	digital subscriber line
DSLAM	digital subscriber line access multiplexer
DSP	domain-specific part
DSR	data set ready
DSS	Digital Signature Standard
DST	Daylight Saving Time
DSU	data service unit
DTE	data terminal equipment
DTR	data terminal ready
DU	downstream unsolicited
DVMRP	Distance Vector Multicast Routing Protocol
DXI	data exchange interface (abbreviation pronounced "dixie")
<b>E</b>	
EBGP	exterior Border Gateway Protocol
ECC	error checking and correction; error-checking code
ECMP	equal-cost multipath
EEPROM	electrically erasable programmable read-only memory
EF	expedited forwarding
EGP	exterior gateway protocol
EMS	element management system
EN	European Norm
EPD	early packet discard
ES	end system

<b>Abbreviation or Acronym</b>	<b>Term</b>
ESD	electrostatic discharge
ESF	extended superframe
ESI	end system identifier
ESP	Encapsulating Security Payload
ESSM	Extended Service and Subscriber Management
EXP	experimental (refers to bits in MPLS shim header)
<b>F</b>	
FAT	file allocation table
FCC	Federal Communications Commission
FCS	frame check sequence
FDL	facility data link
FE	Fast Ethernet
FE-2	dual-port Fast Ethernet
FEC	forwarding equivalence class (abbreviation pronounced “feck”)
FECN	forward explicit congestion notification
FERF	far end receive failure
FIB	forwarding information base
FIFO	first in first out
FPGA	Field Programmable Gate Array
FQDN	fully qualified domain name
FR	Frame Relay
FRU	field replaceable unit
FSM	finite state machine
FT1	fractional T1
FTE	forwarding table entry
FTP	File Transfer Protocol
FTTC	fiber to the curb
FTTH	fiber to the home
FTTS	fiber to the subscriber
<b>G</b>	
Gbps	gigabits per second
GE	Gigabit Ethernet
GRE	Generic Routing Encapsulation
GRxx	(refers to Bellcore standards)
GUI	graphical user interface

Abbreviation or Acronym	Term
<b>H</b>	
HDLC	High-Level Data Link Control; High-Speed Data Link Control
HDSL	high-data-rate subscriber line
HMAC	Hashed Message Authentication Code
HO-DSP	high-order domain-specific part
HRR	hierarchical round robin
HSSI	high-speed serial interface (abbreviation pronounced “hissy”)
<b>I</b>	
I/O	input/output
IANA	Internet Assigned Numbers Authority
IBGP	interior Border Gateway Protocol
IC CS	Industry Canada Communications Section
ICD	International Code Designator
ICMP	Internet Control Message Protocol
ICRQ	incoming-call request
ID	identification (identifying; identifier)
I-DAS	integrated DHCP access server
IDI	initial domain identifier
IDP	initial domain part
ISDL	ISDN digital subscriber line
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IGMP	Internet Group Management Protocol
IGP	interior gateway protocol
IIF	incoming interface
IKE	Internet Key Exchange
ILEC	incumbent local exchange carrier
ILMI	integrated local management interface
InARP	Inverse Address Resolution Protocol
IP	Internet Protocol
IPCP	Internet Protocol Control Protocol
IPoA	Internet Protocol over Asynchronous Transfer Mode
IPSec	Internet Protocol Security
IRDP	ICMP Router Discovery Protocol

<b>Abbreviation or Acronym</b>	<b>Term</b>
ISAKMP	Internet Security Association and Key Management Protocol
ISDN	Integrated Services Digital Network
IS-IS	Intermediate System–to–Intermediate System
ISM	IPSec Service module
ISO	International Organization for Standardization
ISP	Internet service provider
IS Voice	Intelligent Service Voice application
ITU-T	International Telecommunication Union - Telecommunication
<b>J</b>	
JATE	Japan Approvals Institute for Telecommunications Terminal Equipment
JCBC	Java Database Connectivity
<b>K</b>	
KB	kilobyte(s)
Kbps	kilobits per second
<b>L</b>	
L2F	Layer 2 Forwarding
L2TP	Layer 2 Tunneling Protocol
LAC	L2TP access concentrator
LAN	local area network
LCP	Link Control Protocol
LDAP	Lightweight Directory Access Protocol
LDP	Label Distribution Protocol
LED	light-emitting diode
LER	label edge router
LIB	label information base
LIP	Link Integrity Protocol
LIS	logical IP subnetwork
LLC	logical link control
LM	line module
LMDS	local multipoint distribution system
LMI	local management interface; link management interface
LNS	L2TP network server
LOF	loss of frame
LOP	loss of pointer

<b>Abbreviation or Acronym</b>	<b>Term</b>
LOS	loss of signal
LS	link state
LSA	link state advertisement
LSDB	link state database
LSP	label-switched path; link state packet; link state protocol
LSR	label-switching router
<b>M</b>	
MAC	Media Access Control; message authentication code
MAN	metropolitan area network
MAU	medium attachment unit
MB	megabyte(s)
MBGP	multicast Border Gateway Protocol
MBONE	multicast backbone
Mbps	megabits per second
MBS	maximum burst size
MD5	Message Digest 5
MDL	maintenance data link
MDU	message decoder unit
MDx	Message Digest x (hash algorithm)
MED	multiexit discriminator
MFA	management functional area
MFR	Multilink Frame Relay
MIB	Management Information Base
MLP; MLPPP	Multilink Point-to-Point Protocol
MMDS	multichannel multipoint distribution system
motd	message of the day
MOTM	message of the minute
MP	Multilink Point-to-Point Protocol
MP-BGP	Border Gateway Protocol multiprotocol extensions (sometimes referred to as multiprotocol Border Gateway Protocol)
MPLS	Multiprotocol Label Switching
MPPE	Microsoft Point-to-Point Protocol Encryption
MRRU	multilink maximum received reconstructed unit
MRU	maximum receive unit
MSO	multiservice operator

<b>Abbreviation or Acronym</b>	<b>Term</b>
MSP	Multiplex Section Protection
MTU	maximum transmission unit; multitenant unit
MUX	multiplexer
<b>N</b>	
NAK	negative acknowledgment
NAS	network access server
NBMA	nonbroadcast multiaccess
NCP	Network Control Protocol
NEBS	network equipment building systems
NET	network entity title
NLRI	network layer reachability information
NLSP	NetWare Link Services Protocol
NMC	Network Management Center
NMS	network management system
NNI	Network-to-Network Interface
NRZ	nonreturn to zero
NRZI	nonreturn to zero inverted
NSAP	network service access point
NSSA	not-so-stubby area (refers to OSPF routing)
NTP	Network Time Protocol
NVRAM	nonvolatile random-access memory
NVS	nonvolatile storage
<b>O</b>	
OAM	operations, administration, and management
OC	optical carrier
ODBC	Open Database Connectivity
OID	object identifier
OIF	outgoing interface
ORF	outbound route filter; outbound route filtering
OSI	Open Systems Interconnection
OSINLCP	OSI Internet Link Control Protocol; OSI Network Layer Control Protocol
OSPF	Open Shortest Path First
OSS	operations support system

Abbreviation or Acronym	Term
<b>P</b>	
P	provider core router
PADI	PPPoE Active Discovery Initiation
PADM	PPPoE Active Discovery Message
PADO	PPPoE Active Discovery Offer
PADR	PPPoE Active Discovery Response
PADS	PPPoE Active Discovery Session
PADT	PPPoE Active Discovery Termination
PAP	Password Authentication Protocol
PBX	private branch exchange
PCMCIA	Personal Computer Memory Card International Association
PCR	peak cell rate
PDM	packet division multiplexed
PDU	protocol data unit
PE	provider edge router
PFC	Protocol Field Compression
PFS	perfect forward security
PHB	per-hops behavior
PIM	Protocol Independent Multicast; power input module
PIM DM	Protocol Independent Multicast Dense Mode
PIM S-DM	Protocol Independent Multicast Sparse-Dense Mode
PIM SM	Protocol Independent Multicast Sparse Mode
PKI	public key infrastructure
PKIX	public key infrastructure for the Internet using X.509v3 certificates
PLCP	physical layer convergence procedure
PM	policy manager
PNNI	private network-to-network interface
POP	point of presence
POS	packet over SONET
POST	power-on self-test
PPP	Point-to-Point Protocol
PPPoE	Point-to-Point Protocol over Ethernet
pps	packets per second
PROM	programmable read-only memory
PSNP	partial sequence numbers PDU (protocol data unit)

<b>Abbreviation or Acronym</b>	<b>Term</b>
PVC	permanent virtual circuit (or connection)
<b>Q</b>	
QoS	quality of service
QSAAL	Q.2931 protocol over signalling ATM adaptation layer
<b>R</b>	
RADIUS	Remote Authentication Dial-In User Service
RADSL	rate-adaptive digital subscriber line
RAS	remote access server
RD	route distinguisher
RDBS	relational database system
RDI	remote defect indication
RED	random early detect
REI	remote error indication
RESV	reservation
RFC	request for comments
RIB	routing information base
RIP	Routing Information Protocol
RISC	reduced instruction set computing
RMI	Remote Method Invocation (Java)
RP	rendezvous point (router)
RPF	reverse path forwarding
RSA	Rivest-Shamir-Adleman (encryption algorithm)
RSVP	Resource Reservation Protocol
RSVP-TE	Resource Reservation Protocol with traffic-engineering extensions
RT	routing table
RTR	Response Time Reporter
RX	receive
<b>S</b>	
SA	security association
SAR	segmentation and reassembly
SC	system controller
S-CBQ	subscriber class-based queuing
SCCRQ	Start-Control-Connection-Request
SCR	sustained cell rate

Abbreviation or Acronym	Term
SCSI	small computer system interface (abbreviation pronounced “scuzzy”)
SDH	Synchronous Digital Hierarchy
SDRAM	synchronous dynamic random access memory
SDSL	symmetric digital subscriber line
SDU	service data unit
SDX	Service Deployment System (formerly SSC)
SEF	severely errored framing
SES	severely errored second
SETS	synchronous equipment timing source
SFP	small form-factor pluggable transceiver
SG	source group
SHA	Secure Hash Algorithm
SIP	SMDS Interface Protocol
SLA	service level agreement
SLARP	Serial Link Address Resolution Protocol
SMC	Service Management Center
SMDS	Switched Multimegabit Data Service
SMF	single-mode fiber
SMI	structure of management information
SMM	switch management module
SNAP	Subnetwork Access Protocol; subnetwork attachment point
SNI	SMDS network interface
SNMP	Simple Network Management Protocol
SNPA	subnet point of attachment
SNTP	Simple Network Time Protocol
SONET	synchronous optical network
SPF	shortest path first
SPI	security parameter index
SPQ	strict-priority queues
SPVC	soft permanent virtual circuit
SQL	Structured Query Language
SRP	switch route processor
SRT	source-rooted tree
SSC	Service Selection Center (no longer used; see SDX)

<b>Abbreviation or Acronym</b>	<b>Term</b>
SSH	Secure Shell Server
SSN	short sequence number
STM	Synchronous Transport module
SVC	switched virtual circuit
S-VLAN	stacked virtual local area network
<b>T</b>	
TAC	Technical Assistance Center (Unisphere)
TACACS	Terminal Access Controller Access Control System
TC	transmission convergence
TCP	Transmission Control Protocol
TE	traffic engineering
TIP	terminal interface processor
TLV	type-length-value
ToS	type of service
TPID	Tag Protocol Identifier
TSM	Tunnel Service line module
TTL	time-to-live
TU	tributary unit
TUG	tributary unit group
TX	transmit
<b>U</b>	
U	unit of measurement for rack-mounted equipment (a U is 1.75 in., or 4.44 cm)
UBR	unspecified bit rate
UDP	User Datagram Protocol
UI	user interface
UL	Underwriter Laboratories
UMC	Unisphere Management Center
UNI	User-Network Interface (ATM usage); User-to-Network Interface
UPC	user parameter control
URL	Uniform Resource Locator
USM	user-based security model
UTC	Coordinated Universal Time
<b>V</b>	
VAC	volts alternating current

<b>Abbreviation or Acronym</b>	<b>Term</b>
VBR	variable bit rate
VBR-NRT	variable bit rate, non-real time
VBR-RT	variable bit rate, real time
VC	virtual circuit (or connection)
VCC	virtual channel connection
VCCI	Voluntary Control Council for Interference
VCD	virtual circuit descriptor
VCI	virtual channel identifier
VDC	volts direct current
VDSL	very-high-bit-rate digital subscriber line
VLAN	virtual local area network
VoIP	voice over Internet Protocol
VP	virtual path
VPC	virtual path connection
VPI	virtual path identifier
VPN	virtual private network
VR	virtual router
VRF	VPN routing and forwarding instance
VRID	virtual router identifier
VRRP	Virtual Router Redundancy Protocol
VSA	vendor-specific attribute (RADIUS)
VT	virtual tributary
VTS	VPN Tunnel Server
vty	virtual terminal
<b>W</b>	
WAN	wide area network
WFQ	weighted fair queuing
WINS	Windows Internet Name Service (Microsoft)
WLAN	wireless local area network
WLL	wireless local loop
WRED	weighted random early detect
WRR	weighted round robin
<b>X</b>	
xDSL	combined term used to refer to ADSL, HDSL, SDSL, and VDSL