



**7450 ETHERNET SERVICE SWITCH
7750 SERVICE ROUTER
7950 EXTENSIBLE ROUTING SYSTEM**

**ACRONYM REFERENCE GUIDE
RELEASE 14.0.R4**

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1 7750 SR, 7450 ESS, and 7950 XRS Acronyms

Table 1 **Numbers**

Acronym	Definition
1DM	One-way Delay Measurement
6PE	IPv6 Provider Edge router. An MPLS IPv4 core network that supports IPv6 domains which communicate over an IES service.
6VPE	IPv6 Provider Edge router with IP-VPN Services. An MPLS IPv4 core network that supports the communication using IPv6 VPRN services.
2G	Second-generation wireless telephone technology
3DES	Triple DES (data encryption standard)
3G	Third-generation mobile telephone technology
4G	Fourth-generation mobile telephone technology
5G	Fifth-generation mobile telephone technology
5620 SAM	5620 Service Aware Manager
7705 SAR	7705 Service Aggregation Router
7210 SAS	7210 Service Access Switch
7450 ESS	7450 Ethernet Service Switch
7705 SAR	7705 Service Aggregation Router
7750 SR	7750 Service Router
7950 XRS	7950 eXtensible Routing System

Table 2 **A**

Acronym	Definition
AA	Application Assurance
AA-ISA	Application Aware Integrated Service Adapter
AAA	AA-Answer
AAL	ATM Adaptation Layer

Table 2 A (Continued)

Acronym	Definition
AAL5	ATM Adaptation Layer 5
AAR	AA-Request
AARP	AA Redundancy Protocol
ABM	Asynchronous Balanced Mode
ABR	Area Border Router Available Bit Rate
AC	Alternating Current Attachment Circuit
ACA	Accounting-Answer
ACCM	Async-Control-Character-Map
ACFC	Address and Control Field Compression
ACH	Associated Channel
ACK	Acknowledgment
ACL	Access Control List, also called filter policy
ACR	Accounting-Request Adaptive Clock Recovery
ADC	Application Detection and Control
ADI	Ad Insertion
ADI-LZ	Ad Insertion Local and Zoned
ADM	Add/Drop Multiplexer
ADP	Active Diameter Proxy Automatic Discovery Protocol
AFI	Address Family Identifier Authority and Format Identifier
AFTR	Address Family Transition Router
AGI	Address Group Identifier
AIGP	Accumulated IGP
All	Attachment Individual Identifier
AIS	Alarm Indication Signal

Table 2 A (Continued)

Acronym	Definition
ALE	Access-Loop-Encapsulation
ALG	Application-Level Gateway
ALMP	Auto-Learn-Mac-Protect
AMI	Alternate Mark Inversion
AMO	Any Mode of Operation
ANSI	American National Standards Institute
ANCP	Access Node Control Protocol
API	Application Programming Interface
Apip	ATM VLL
APN	Access Point Name
APS	Automatic Protection Switching
AQP	Application QoS Policies
ARP	Address Resolution Protocol
A/S	Active/Standby
AS	Autonomous System
ASAP	Any Service Any Port
ASBR	AS Boundary Routers
ASID	Acct-Session-Id
ASM	Any-Source Multicast
ASN	Autonomous System Number
ASO	Application Service Option
ATM	Asynchronous Transfer Mode
AVP	Attribute Value Pair

Table 3 B

Acronym	Definition
B-bit	Beginning bit (first packet of a fragment)

Table 3 B (Continued)

Acronym	Definition
BBF	Broadband Forum
BC	Bandwidth Constraint
BCB	Backbone Core Bridge
BCG	Burst Control Group
BCP	Bridging Control Protocol
B-DA	Backbone Destination MAC Address
BEB	Backbone Edge Bridge
BECN	Backward Explicit Congestion Notification
Bellcore	Bell Communications Research
BER	Basic Encoding Rules
BER	Bit Error Rate
BERT	Bit Error Rate Test
BFD	Bi-directional Forwarding Detection
BGP	Border Gateway Protocol
BITS	Building Integrated Timing Source Building Integrated Timing Supply
B-MAC	Backbone source and destination MAC address fields defined in the 802.1ah provider MAC encapsulation header
BMCA	Best Master Clock Algorithm
BMU	Broadcast, Multicast, and Unknown traffic
BNG	Broadband Network Gateway
BOF	Boot Option File
BOOTP	Bootstrap Protocol
BPDU	Bridge Protocol Data Unit
BPG or BPGRP	Bundle Protection Group
BR	Border Router
BRAS	Broadband Remote Access Server
BRG	Bridged Residential Gateway

Table 3 B (Continued)

Acronym	Definition
BSA	Broadband Service Aggregator
BSAN	Broadband Service Access Node
BSC	Base Station Controller
BSD	Berkeley Software Distribution
BSM	Basic Subscriber Management
BSR	Bootstrap Router Broadband Service Router
BTS	Base Transceiver Station
BTSH	BGP TTL Security Hack
BTV	Broadcast Television
BUM	Broadcast, Unicast unknown and Multicast
B-VPLS	Backbone VPLS
BVID	Backbone VLAN ID
BVPLS	See B-VPLS

Table 4 C

Acronym	Definition
CA	Certificate Authority
CAC	Call Admission Control
CAS	Channel Associated Signaling
CBF	Class-Based Forwarding
CBR	Constant Bit rate
CBS	Committed Buffer Size Committed Buffer Space Committed Burst Size
CC	Content of Communication Continuity Check Control Channel

Table 4 C (Continued)

Acronym	Definition
CCA	Credit Control Answer Cross Connect Adapter
CCA-I	Credit Control Answer-Initial
CCA-T	Credit Control Answer-Terminate
CCA-U	Credit Control Answer-Update
CCAG	Cross Connect Aggregation Group
CCFH	Credit Control Failure Handling
CCID	Cross Connect Identifier
CCM	Chassis Control Module Continuity Check Messages
CCR	Credit Control Request
CCR-I	Credit Control Request-Initiate
CCR-T	Credit Control Request-Terminate
CCR-U	Credit Control Request-Update
CDP	Cisco Discovery Protocol
CDVT	Cell Delay Variation Tolerance
CE	Circuit Emulation Customer Edge Customer Equipment
CEC	Circuit Emulation Concentrator
CEM	Circuit-Emulation
CER	Capability Exchange Request
CES	Circuit Emulation Services
CESoPSN	Circuit Emulation Services over Packet Switched Network
CFHP	Class Fair Hierarchical Policing
CFM	Connectivity Fault Management Control Forwarding Module
CFP	C form-Factor Pluggable
CGA	Cryptographically Generated Address

Table 4 C (Continued)

Acronym	Definition
CGI	Cell Global Identification
CGN	Carrier Grade NAT
CHAP	Challenge Handshake Authentication Protocol
cHDLC	Cisco High-Level Data Link Control protocol
CHLI	Consecutive High Loss Intervals
CIDR	Classless Inter-Domain Routing
CIR	Committed Information Rate
CLEI	Common Language Equipment Identification
CLI	Command Line Interface
CLLI	Common Language Location Identifier
CLP	Cell Loss Priority
CMA	Compact Media Adapter
CMAC	Customer MAC
CMP	Certificate Management Protocol
CMTS	Cable Modem Termination System
CO	Central Office
CoA	Change of Authorization
confed-EBGP	Confederation External BGP
CoS	Class of Service
CP	Connection-Profile
CPE	Customer Premises Equipment
Cpipe	Circuit Pipe
CPM	Control Processing Module
CP/SFM	Control Processor/Switch Fabric Module
CPU	Control Processing Unit
CRC	Cyclic Redundancy Check
CRC-32	32-bit Cyclic Redundancy Check

Table 4 C (Continued)

Acronym	Definition
CRL	Certificate Revocation List
CRMF	Certificate Request Message Format
CRON	a time-based scheduling service (from chronos = time)
CRP	Candidate RP
CSC	Carrier Supporting Carrier
CSF	Client Signal Fail
CSM	Control and Switching Module
CSN	Complete Sequence Number
CSNP	Complete Sequence Number PDU
CSPF	Constraint-based Shortest Path First
CSR	Cellsite Service Router
CSU	Channel Service Unit
CSV	Certificate Status Verification
C-TAG	Customer VLAN tag
CV	Connection Verification Customer VLAN (tag)
CVID	Customer VLAN ID
CW	Control Word

Table 5 D

Acronym	Definition
DACS	Digital Access Cross-connect System
DAD	Duplicate Address Detection
DC	Direct Current
DCCA	Diameter Credit Control Application
DCD	Data Carrier Detect
DCE	Data Circuit-terminating Equipment Data Communications Equipment

Table 5 D (Continued)

Acronym	Definition
DCP	Distributed CPU Protection
DCSC	Digital Channel Switch Capable
DDM	Digital Diagnostics Monitoring
DDMAP	Downstream Detailed Mapping
DDoS	Distributed DoS
DDP	Dynamic Data Persistency
DDS	Dynamic Data Services
DE	Discard-Eligible
DES	Data Encryption Standard
DEI	Drop Eligibility Indicator
DF	Delivery Function Do not Fragment
DH	Diffie-Hellman
DHB	Decimal, Hexadecimal, or Binary
DHCP	Dynamic Host Configuration Protocol
DHCPv6	Dynamic Host Configuration Protocol for IPv6
DHT	Distributed Hash Protocol
DLC	Data Link Control
DLCI	Data Link Connection Identifier
DLCMI	Data Link Connection Management Interface
DDM	Delay Measurement Message
DM	Delay Measurement
DN	Domain Name
DMR	Delay Measurement Reply
DNAT	Destination-based Network Address Translation
DNS	Domain Name System
DNSSEC	DNS Security
DOD	Downstream On Demand

Table 5 D (Continued)

Acronym	Definition
DORA	Discovery/Offer/Request/Ack
DoS	Denial of Service
dot1p	IEEE 802.1p bits, in Ethernet or VLAN ingress packet headers, used to map traffic to up to eight forwarding classes
dot1q	IEEE 802.1q encapsulation for Ethernet interfaces
DPD	Dead Peer Detection
DPI	Digital Program Insertion
DPL	Delegated Prefix Length
DPLL	Digital Phase Locked Loop
DPV	Designated Priority Vector
DR	Designated Router
DRM	Digital Rights Management
DSA	Digital Signal Algorithm
DSA	Direct System Agent
DSAP	Destination Service Access Point
DSCP	Differentiated Services Code Point
DSFS	Data SAP Forwarding State
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
DSM	Distributed Subscriber Management
DSMAP	Downstream Mapping
DTC	DHCP Transaction Cache
DTD	Dynamic Topology Discovery
DTE	Data Terminal Equipment
DTP	Digital Trunking Protocol
DU	Downstream Unsolicited
DUID	DHCP Unique Identifier
DUS	Do not Use for Synchronization

Table 5 D (Continued)

Acronym	Definition
DVB	Digital Video Broadcasting
DVMRP	Distance Vector Multicast Routing Protocol
DWDM	Dense Wavelength Division Multiplexing

Table 6 E

Acronym	Definition
e2e	End-to-End
EAP	Extensible Authentication Protocol
EAPOL	EAP over LAN
E-bit	Ending bit (last packet of a fragment)
eBGP or EBGp	External Border Gateway Protocol
E-BSR	Elected BSR
ECID	Emulated Circuit Identifiers
ECMP	Equal Cost Multipath
ECT	Equal Cost Tree
EFH	Extended Failure Handling
EFM	Ethernet in the First Mile
EGP	Exterior Gateway Protocol
EHS	Event Handling System
EIC	Ethernet Interface Counters
EIR	Excess Information Rate
ELER	Egress Label Edge Router
eLMI	Ethernet Link Management Interface
EMG	Egress Multicast Group
EMR	Efficient Multicast Replication
EMS	Enhanced Subscriber Management
EOM	End-of-Message

Table 6 E (Continued)

Acronym	Definition
EOR	End-of-RIB
Epipe	Ethernet Pipe Ethernet VLL
EPL	Ethernet Private Line
EPS	Equipment Protection Switching
ERO	Explicit Router Object
ES	Elementary Stream
ESF	Extended Super Frame
ESI	Ethernet Segment Identifier
ESM	Enhanced Subscriber Management
ESMC	Ethernet Synchronization Messaging Channel
ESP	Encapsulating Security Payload
ETE	End-to-End
ETH	Ethernet
ETH-CFM	Ethernet Configuration and Fault Management Ethernet Connectivity Fault Management (IEEE 802.1ag)
ETR	Extended Temperature Range
ETSI	European Telecommunications Standards Institute
EUI-64	64-bit Extended Unique Identifier
EVC	Ethernet Virtual Connections
EVI	EVPN Instance
EVPL	Ethernet Virtual Private Link
EVPN	Ethernet VPN
EXEC	Execute
EXP bits	Experimental bits (currently known as TC)

Table 7 F

Acronym	Definition
FAP	Femto Access Point
FASTE	FastE SFP type
FC	Forwarding Class
FCC	Fast Channel Change
FCS	Frame Check Sequence
FD	Frame Delay Frequency Diversity
FDB	Forwarding Database
FDL	Facilities Data Link
FDR	Frame Delay Range
FEAC	Far-End Alarm and Control
FEC	Forwarding Equivalence Class
FECN	Forward Explicit Congestion Notification
FEPL	Far-End Protection-Line
FF	Fixed Filter
FIB	Forwarding Information Base
FID	Forwarding ID
FIFO	First In, First Out
FIPS	Federal Information Processing Standards
FIR	Fair Information Rate
FIX	Financial Information eXchange
FLR	Frame Loss Ratio
FOM	Figure of Merit
FPE	Forwarding Path Extension
Fpipe	Frame-Relay VLL
FPP	Floor Packet Percentage
FPRI	Fine-grained Priority

Table 7 F (Continued)

Acronym	Definition
FQDN	Fully Qualified Domain Name
FQF	Fully Qualified Flows
FR	Frame Relay
FRG	Fragmentation bit
FRR	Fast Reroute
FSG	Fate Sharing Group
FTN	FEC-to-NHLFE
FTP	File Transfer protocol
FTTH	Fiber to the Home

Table 8 G

Acronym	Definition
G-ACh	Generic Associated Channel
GAL	Generic ACH Label
GARP	Gratuitous ARP
GBMAC	Group BMAC
GFP	Generic Framing Procedure
GigE	Gigabit Ethernet
GIGE	GigE SFP type
GIGX	GigX SFP
gLSP	GMPLS LSP
GMPLS	Generalized Multi-Protocol Label Switching
GNSS	Global Navigation Satellite System
GOP	Group of Pictures
GPON	Gigabit Passive Optical Network
GPRS	General Packet Radio Service
GPS	Global Positioning System

Table 8 G (Continued)

Acronym	Definition
GR	Graceful Restart Guaranteed Restoration
GRACE	Graceful restart
GRE	Generic Routing Encapsulation
GRT	Global Routing Table
GSMP	General Switch Management Protocol
GSU	Granted Service Unit
GTP	GPRS Tunneling Protocol

Table 9 H

Acronym	Definition
HA	High Availability
HD	High Definition
HDLC	High-level Data Link Control protocol
HEC	Header Error Control
HGW	Home Gateway
HLI	High Loss Interval
HMAC	Hash-based Message Authentication Code Hash Message Authentication Code
H-OFS	Hybrid OpenFlow Switch
HQOS	Hierarchical Quality of Service
HSDPA	High-Speed Downlink Packet Access
HSI	High Speed Internet
HSMDA	High Scale MDA
HSPA	High-Speed Packet Access
HTTP	Hyper-Text Transfer Protocol
HTTPS	HTTP Secure
HVPLS	Hierarchical Virtual Private Line Service

Table 10 I

Acronym	Definition
IAD	Integrated Access Device
IAID	Identity Association Identification
IANA	Internet Assigned Numbers Authority
IA-NA	Identity Association for Non-Temporary Addresses
IA-PD	Identity Association for Prefix Delegation
IAPP	Inter Access Point Protocol
IBGP	Interior Border Gateway Protocol
IBN	Isolated Bonding Network
IB-RCC	In-Band Ring Control Connection
ICAP	Internet Content Adaptation Protocol
ICB	Inter-Chassis Backup
ICL	Inter-Chassis Link
ICMP	Internet Control Message Protocol
ICMPv6	Internet Control Message Protocol for IPv6
ICP	IMA Control Protocol
IDi	Identification Indicator (an IKEv2 protocol payload)
IDS	Intrusion Detection System
IEEE	Institute of Electrical and Electronics Engineers
IES	Internet Enhanced Service
IETF	Internet Engineering Task Force
IFDV	InterFrame Delay Variation
IFF	Inbound FEC Filtering
IFG	Inter-Frame Gap
IGD	Internet Gateway Device
IGH	Interface Group Handler
IGMP	Internet Group Management Protocol
IGP	Interior Gateway Protocol

Table 10 I (Continued)

Acronym	Definition
IID	Instance ID
IIH	IS-IS Hello
IKE	Internet Key Exchange
ILER	Ingress Label Edge Router
ILM	Incoming Label Map
ILMI	Integrated Local Management Interface
IMA	Inverse Multiplexing over ATM
IMEI	International Mobile Equipment Identity
IMEISV	International Mobile Equipment Identity and its Software Version
IMET	Inclusive Multicast Ethernet Tag
IMM	Integrated Media Module
IMPM	Ingress Multicast Path Management
IMSI	International Mobile Subscriber Identification
IOM	Input/Output Module
IP	Internet Protocol
IP-CAN	IP Connectivity Access Network
IPCC	IP Communication Channel IP Control Channel
IPCP	Internet Protocol Control Protocol
IPFIX	IP Flow Information Export
Ipipe	IP Pipe IP Interworking VLL
IPOE	IP over Ethernet
IPS	Intrusion Prevention System
IPSec	IP Security
IPTV	Internet Protocol Television
IRI	Intercept Related Information
ISA	Integrated Service Adapter

Table 10 I (Continued)

Acronym	Definition
ISAKMP	Internet Security Association and Key Management Protocol
ISID	I-component Service ID I-Service Instance Identifier
IS-IS	Intermediate System to Intermediate System
ISO	International Organization for Standardization
ISSU	In-Service Software Upgrade
IST	Internal Spanning Tree
ITU-T	International Telecommunications Union - Telecommunications

Table 11 J

Acronym	Definition
JID	JabberID
JOLT	Java OnLine Transactions
JP	Join Prune

Table 12 K

Acronym	Definition
KAT	Keepalive Timer
KPI	Key Performance Indicators

Table 13 L

Acronym	Definition
L2TP	Layer 2 Tunneling Protocol
LAA	Local Address Assignment
LAC	L2TP Access Concentrator
LACP	Link Aggregation Control Protocol
LAG	Link Aggregation Group

Table 13 L (Continued)

Acronym	Definition
LAN	Local Area Network
LB	Label Base Loopback
LBM	Loopback Message
LBR	Loopback Reply Loopback Response
LCD	Loss of Cell Delineation
LCP	Link Control Protocol
LDAP	Lightweight Directory Access Protocol
LDAPS	LDAP over SSL/STL
LDP	Label Distribution Protocol
LDPoRSVP	LDP over RSVP
LER	Label Edge Router
LFA	Loop-Free Alternate
LFI	Link Fragmentation and Interleaving
LIB	Label Information Base
LIG	Lawful Intercept Gateway
LLC	Link Layer Control Logical Link Control
LLDP	Link Layer Discovery Protocol
LLDPDU	Link Layer Discovery Protocol Data Unit
LLF	Link Loss Forwarding
LLID	Loopback Location ID
LM	Loss Measurement
LMI	Local Management Interface
LMP	Link Management Protocol
LNS	L2TP Network Server
LOC	Loss of Continuity

Table 13 L (Continued)

Acronym	Definition
LOP	Loss of Packets
LOS	Loss of Signal
LoT	Loss of Transmission
LPM	Longest Prefix Match
LPN	Label per Next hop
LPP	Label per Prefix
LPT	Logical Port Type
LPT-S	Logical Port Type Subtype
LPT-V	Logical Port Type Value
LR	Label Route
LSA	Link-State Advertisement
LSDB	Link-Sate Database
LSN	Large-Scale NAT
LSP	Link-State PDU (for IS-IS) Label-Switched Path
LSR	Link-state Request Label Switch Router
LSU	Link-State Update
LT	Linktrace
LTE	Line Termination Equipment Long Term Evolution
LTM	Linktrace Message
LTN	LSP ID to NHLFE
LTR	Linktrace Reply Linktrace Response
LUB	Limit Unused Bandwidth
LUDB	Local User Data Base

Table 14 M

Acronym	Definition
MA	Maintenance Association
MA-ID	Maintenance Association Identifier
MAC	Media Access Control
MAM	Maximum Allocation Model
MAN	Metropolitan Area Network
MAR	Mobile Aggregation Router
MBB	Make-Before-Break
MBGP	Border Gateway Protocol with Multi-protocol extensions
MBS	Maximum Buffer Size Maximum Burst Size Media Buffer Space
MC-APS	Multi-Chassis Automatic Protection Switching
MC-CTL	Multi-Chassis Control Link
MC-EP	Multi-Chassis Endpoint
MC-IPSec	Multi-Chassis IPSec redundancy
MC-LAG	Multi-Chassis Link Aggregation
MC-MLPPP	Multi-Chassis Multilink Point-to-Point Protocol Multi-Class Multilink Point-to-Point Protocol
MCAB	Maximum Configurable ATM Bandwidth
MCAC	Multicast Connection Admission Control
MCC	Mobile Country Code
MCLT	Maximum Client Lead Time
MCM	MDA Carrier Module
MCR	Mobile Core Router
MCS	Multi-Chassis Synchronization
MD	Maintenance Domain
MD5	Message Digest version 5 (algorithm)
MDA	Media Dependent Adapter

Table 14 M (Continued)

Acronym	Definition
MDI	Media Dependent Interface
MDL	Maintenance Data Link
MDT	Multicast Distribution Tree
MDX	Media Dependent Interface with crossovers
ME	Maintenance Entity
MED	Multi-Exit Discriminator
MEF	Metro Ethernet Forum
MEG	Maintenance Entity Group
MEP	Maintenance Association Endpoint Maintenance Endpoint
MEP-ID	Maintenance Association Endpoint Identifier
MFD	Mean Frame Delay
MFIB	Multicast Forwarding Information Base
MHD	Multi-Homed Device
MHF	MIP Half Function
MHN	Multi-Homed Network
MHV	Mirror Header Version
MIB	Management Information Base
MIMP	MC-IPSec Mastership Protocol
MIP	Maintenance Domain Intermediate Point Maintenance Intermediate Points
MIR	Minimum Information Rate
MLD	Multicast Listener Discovery
MLDP	Multicast Label Distribution Protocol
MLFR	Multi-Link Frame Relay
MLPPP	Multilink Point-to-Point Protocol
MLT	Multi-Link Trunk
MMRP	Multiple MAC Registration Protocol

Table 14 M (Continued)

Acronym	Definition
MNC	Mobile Network Code
MOP	Maintenance Operational Procedure
MOS	Mean Opinion Score
MP	Merge Point Multilink Protocol
MPBGP	Multi-Protocol Border Gateway Protocol
MPLS	Multiprotocol Label Switching
MPLSCP	Multiprotocol Label Switching Control Protocol
MPTS	Multi-Program Transport Stream
MRAI	Minimum Route Advertisement Interval
MRIB	Multicast Routing Information Base
MRP	Multi-service Route Processor
MRRU	Maximum Received Reconstructed Unit
MRU	Maximum Receive Unit
MSAN	Multi-Service Access Node
MSAP	Managed Service Access Point
MSB	Most Significant Bit
MSCC	Multiple Services Credit Control
MSDP	Multicast Source Discovery Protocol
MSDU	MAC Service Data Unit
MSFP	Multicast Switch Fabric Plane
MS-ISM	Multi-Service Integrated Services Module
MSK	Master Session Key
MS-PW	Multi-Segment Pseudowire
MSR	Mobile Service Router
MSS	Multi-Service Site
MSTI	Multiple Spanning Tree Instances
MSTP	Multiple Spanning Tree Protocol

Table 14 M (Continued)

Acronym	Definition
MSTV	Microsoft Television
MTBF	Mean Time Between Failures
MTSO	Mobile Telephony Switching Office
MTTR	Mean Time To Repair
MTU	Multi-Tenant Unit
M-VPLS	Management Virtual Private Line Service
MVPN	Multicast VPN
MVR	Multicast VPLS Registration
MVRP	Multiple VLAN Registration Protocol

Table 15 N

Acronym	Definition
NAPT	Network Address and Port Translation
NAS	Network Access Server
NAT	Network Address Translation
NBMA	Non-Broadcast Multiple Access network
NBNS	NetBios Name Server
NET	Network Entity Title
NETCONF	Network Configuration Protocol
NG-MVPN	Next-Generation Multicast VPN
NH	Next-Hop
NHLFE	Next-Hop Label Forwarding Entry
NHOP	Next-Hop
NID	Network Interface Demarcation
NIST	National Institute of Standards and Technology
NLPID	Network Level Protocol Identifier
NLRI	Network Layer Reachability Information

Table 15 N (Continued)

Acronym	Definition
NMS	Network Management System
NNI	Network-to-Network Interface
NPA	Network Processor Array
NRT-VBR	Non-Real-Time Variable Bit Rate
NSAP	Network Service Access Point
NSH	Next Signaling Hop
NSP	Network Services Platform
NSR	Nonstop Routing
NSSA	Not-So-Stubby Area
NTP	Network Time Protocol
NVE	Network Virtualization Edge

Table 16 O

Acronym	Definition
OAM	Operation, Administration and Management
OAMPDU	OAM Protocol Data Units
OC3	Optical Carrier level 3
OCD	Out-of-Cell Delineation
OCS	Online Charging Server
ODSA	On-Demand Subnet Allocation
OES	Optical Extension Shelf
OF	OpenFlow
OFS	OpenFlow Switch
OID	Object Identifier
OIF	Outgoing Interfaces
OIL	Outgoing Interface List
OLT	Optical Line Termination

Table 16 **O (Continued)**

Acronym	Definition
OMCR	Oversubscribed Multi-Chassis Redundancy
ONT	Optical Network Terminal
OOB	Out-of-Band
OOP	Out-of-Profile
OPDL	Option Data structure List
OPS	On-Path Support
ORF	Outbound Route Filtering
OS	Operating System
OSF	Oversubscription Factor
OSI	Open Systems Interconnection (reference model)
OSINLCP	OSI Network Layer Control Protocol
OSPF	Open Shortest Path First
OSPF-TE	OSPF-Traffic Engineering (extensions)
OSS	Operations Support System
OTN	Optical Transport Network
OTU	Optical Transport Unit
OWAMP	One-Way Active Measurement Protocol
OXC	Optical Cross-connect

Table 17 **P**

Acronym	Definition
P2MP	Point-to-Multipoint
PAA	PDN Address Allocation
PADI	PPPoE Active Discovery Initiation
PADO	PPPoE Active Discovery Offer
PADR	PPPoE Active Discovery Request
PADS	PPPoE Active Discovery Session-confirmation

Table 17 P (Continued)

Acronym	Definition
PADT	PPPoE Active Discovery Terminate
PAE	Port Authentication Entities
PAGP	Port Aggregation Protocol
PAP	Password Authentication Protocol
PASTE	Provider Architecture for Differentiated Services and Traffic Engineering
PBB	Provider Backbone Bridging
PBF	Policy-Based Forwarding
PBO	Packet-Byte-Offset
PBR	Policy-Based Routing
PBT	Port-Based Timestamping
PCC	Path Computation Element Client
PCC	Policy and Charging Control
PCE	Path Computation Element
PCEF	Policy and Charging Enforcement Function
PCEP	Path Computation Element Protocol
PCM	Pulse Code Modulation
PCP	Priority Code Point
PCR	Peak Cell Rate Proprietary Clock Recovery
PCRF	Policy and Rule Charging Function
PDU	Protocol Data Units
PDV	Packet Delay Variation
PE	Provider Edge Router
PFC	Protocol Field Compression
PFS	Perfect Forward Secrecy
PFSG	Pool Fate Sharing Group
PHB	Per-Hop Behavior

Table 17 P (Continued)

Acronym	Definition
PHP	Penultimate Hop Popping
PHY	Physical layer
PIC	Prefix Independent Convergence
PID	Packet Identifier Protocol Identifier
PIM	Protocol Independent Multicast
PIM-DM	Protocol Independent Multicast-Dense Mode
PIM-SM	Protocol Independent Multicast – Sparse Mode
PIP	Picture-in-Picture
PIR	Peak Information Rate
PKI	Public Key Infrastructure
PLR	Point of Local Repair
PMSI	P-Multicast Service Interface
PMSTP	Provider Multi-Instance Spanning Tree Protocol
PMT	Program Map Table
POA	Program Off Air
POI	Purge Originator Identification
PON	Passive Optical Network
POP	Points of Presence
POS	Packet over SONET
PPID	Payload Protocol Identifier
PPP	Point-to-Point Protocol
PPPOE	Point-to-Point Protocol over Ethernet
PPS	Packets per Second
PPTP	Point-to-Point Tunneling Protocol
PRC	Path Restoration Combined Primary Reference Clock
PRF	Pseudorandom Function

Table 17 P (Continued)

Acronym	Definition
PRI	Packet Priority
PSB	Path State Block
PSC	Protection Switching Coordination
PSCP	Programmable Subscriber Configuration Policy
PSD	Protection Switching Duration
PSI	Payload Structure Identifier
PSK	Pre-Shared Key
PSM	Peer State Machine
PSN	Packet-Switched Network
PSNP	Partial Sequence Number PDU
PTA	PMSI Tunnel Attribute
PTB	Packet Too Big
PTP	Performance Transparency Protocol Precision Time Protocol
PVC	Permanent Virtual Circuit
PVCC	Permanent Virtual Channel Connection
PVST	Per VLAN STP
PW	Pseudowire
PWE	Pseudowire Emulation
PWE3	Pseudowire Emulation Edge-to-Edge
PXC	Port Cross-Connect

Table 18 Q

Acronym	Definition
Q.922	ITU-T Q-series Specification 922
QL	Quality Level
QOS	Quality of Service

Table 18 Q (Continued)

Acronym	Definition
QPPB	QoS Policy Propagation via BGP
QSFP	Quad Small Form-factor Pluggable

Table 19 R

Acronym	Definition
RAA	Re-Authentication Answer
RADIUS	Remote Authentication Dial In User Service
RAI	Routing Area Identity
RAM	Reporting and Analysis Manager
RAN	Radio Access Network
R-APS	Ring Automatic Protection Switching
RAR	Re-Authentication Request
RC	Result Code
RCO	Routed Central Office
RD	Route Distinguisher
RDI	Remote Defect Indication
RDM	Russian Doll Model
RDNSS	Recursive DNS Server
RED	Random Early Discard
RESV	Reservation
RET	Retransmission
RFD	Route Flap Damping
RG	Routed Gateway
RGW	Residential Gateway
RIB	Routing Information Base
RIP	Routing Information Protocol
RNC	Radio Network Controller

Table 19 R (Continued)

Acronym	Definition
RNCV	Ring Node Connectivity Verification
ROA	Route Origin Authorization
RP	Rendezvous Point
RPA	RP Address
RPF	Reverse Path Forwarding
RPL	Ring Protection Link
RPS	Radio Protection Switching
RR	Reporting Reason Route Reflector
RRO	Record Route Object
RSA	Rivest, Shamir, and Adleman (authors of the RSA encryption algorithm)
RSB	Reservation State Block
RSC	Return Sub-Code
RSHG	Residential Split Horizon Group
RSTP	Rapid Spanning Tree Protocol
RSU	Requested Service Unit
RSVP	Resource Reservation Protocol
RSVP-TE	Resource Reservation Protocol – Traffic Engineering
RT	Receive/Transmit
RT-VBR	Real-Time Variable Bit Rate
RTCP	RTP Control Protocol
RTM	Routing Table Manager
RTMP	Real-Time Messaging Protocol
RTMPE	Encrypted Real Time Messaging Protocol
RTMPT	Tunneled Real Time Messaging Protocol
RTP	Real-Time Transport Protocol
RTSP	Real-Time Streaming Protocol

Table 19 R (Continued)

Acronym	Definition
RVPLS	Routed Virtual Private LAN Service

Table 20 S

Acronym	Definition
S-A	Source-Active
SA	Security Association
SAA	Service Assurance Agent
SAC	State Advertisement Control
SAFI	Subsequent Address Family Identifier
SAI	Service Area Identity
SAIL	Source Access Individual Identifier Source Attachment Individual Identifier
SAP	Service Access Point Subscriber Access Point
SASE	Stand Alone Synchronization Equipment
SAToP	Structure-Agnostic TDM over Packet
SBAU	Shared Buffer Average Utilization
SBR	Source-Based Reroute
SBU	Shared Buffer Utilization
SCP	Secure Copy
SCR	Sustained Cell Rate
SCTE	Society of Cable Telecommunications Engineers
SCUR	Session Charging with Unit Reservation
SD	Signal Degrade Space Diversity
SDH	Synchronous Digital Hierarchy
SDN	Software Defined Network

Table 20 S (Continued)

Acronym	Definition
SDP	Service Destination Point Service Distribution Point
SE	Shared Explicit
SeGW	Secure Gateway
SeND	Secure Neighbor Discovery
SETS	Synchronous Timing Equipment Subsystem
SF	Signal Fail
SFM	Switch Fabric Module
SFP	Small Form-factor Pluggable (transceiver)
SHA	Secure Hash Algorithm
SHCV	Subscriber Host Connectivity Verification
SHG	Split Horizon Group
SID	Segment ID
SIP	Session Initiation Protocol
SIR	Sustained Information Rate
SL	Synthetic Loss
SLA	Service Level Agreement
SLAAC	Stateless Address Auto-Configuration
SLARP	Serial Line Address Resolution Protocol
SLM	Synthetic Loss Message
SLR	Synthetic Loss Reply
SMGR	Service Manager
SNAPT	Source Network Address and Port Translation
SNCP	Sub-Network Connection Protection
SNI	Server Name Indicator
SNMP	Simple Network Management Protocol
SNPA	Subnetwork Point of Attachment
SNR	Signal to Noise Ratio

Table 20 S (Continued)

Acronym	Definition
SNTP	Simple Network Time Protocol
SOAM	Service OAM
SONET	Synchronous Optical Network
SOO	Site of Origin
SPB	Shortest Path Bridging
SPBM	Shortest Path Bridging MAC Mode
SPF	Shortest Path First
SPI	Security Parameter Index
S-PMSI	Selective Provider Multicast Service Interface
SPT	Shortest Path Tree
SR	Segment Routing Service Router (7750 SR)
SRGB	Segment Routing Global Block
SRLG	Shared Risk Link Group
SRRP	Subscriber Routed Redundancy Protocol
SR-TE	Segment Routing Traffic Engineering
SSH	Secure Shell
SSM	Source-Specific Multicast Synchronization Status Messages Synchronization Status Messaging
SSRC	Synchronization Source
SSU	System Synchronization Unit Synchronization Supply Unit
STA	Session-Termination-Answer
S-TAG	Service VLAN tag
STB	Set Top Box
STM1	Synchronous Transport Module, level 1
STP	Spanning Tree Protocol
STR	Session-Termination-Requests

Table 20 S (Continued)

Acronym	Definition
SVC	Switched Virtual Circuit
SVID	Stacked VLAN ID
SYN	Synchronize

Table 21 T

Acronym	Definition
TAC	Technical Assistance Center
TACACS+	Terminal Access Controller Access-Control System Plus
TAF	Time Average Factor
TAII	Target Attachment Individual Identifier
TC	Traffic Class (formerly known as EXP bits)
TCA	Threshold Crossing Alert
TCA	Traffic Crossing Alert
TCN	Topology Change Notification
TCP	Transmission Control Protocol
TCSB	Traffic Control State Block
TDF	Traffic Detection Function
TDM	Time Division Multiplexing
TDP-ID	Time Descriptor Policy Identifier
TE	Traffic Engineering
TED	Traffic Engineering Database
TEID	Tunnel Endpoint Identifier
TFN	Tribe Flood Network
TFTP	Trivial File Transfer Protocol
TLDP	Targeted LDP
TLS	Transport Layer Security
TLV	Type Length Value

Table 21 **T (Continued)**

Acronym	Definition
TM	Traffic Management
TNC	Technically Non-Conformant
TNS	Transparent Network Substrate
ToD	Time of Day
TOS	Type-of-Service
T-PE	Terminating Provider Edge router
TPID	Tag Protocol Identifier
TPMR	Two-Port MAC Relay
TPSDA	Triple Play Service Delivery Architecture
TS	Transport Stream
TSH	TTL Security Hack
TTI	Trail Trace Identifier
TTL	Time to Live
TTLS	Tunneled Transport Layer Security
TTM	Tunnel Table Manager
TWAMP	Two-Way Active Measurement Protocol

Table 22 **U**

Acronym	Definition
U-APS	Unidirectional Automatic Protection Switching
UBR	Unspecified Bit Rate
UDP	User Datagram Protocol
ULD	Uni-directional Link Detection
UMTS	Universal Mobile Telecommunications System (3G)
UNI	User-to-Network Interface
UPnP	Universal Plug and Play
uRPF	Unicast Reverse Path Forwarding

Table 22 U (Continued)

Acronym	Definition
USM	User-based Security Model
USU	Used Service Unit
UTC	Coordinated Universal Time

Table 23 V

Acronym	Definition
VACM	View-based Access Control Model
VAS	Value Added Service
VBO	VE Block Offset
VBS	VE Block Size
VC	Virtual Circuit
VCC	Virtual Channel Connection
VCCV	Virtual Circuit Connectivity Verification
VCI	Virtual Circuit Identifier
VCP	Virtual Core Port
VE	VPLS Edge
VE-ID	VPWS Edge Identifier
VID	VLAN ID
VLAN	Virtual LAN
VLL	Virtual Leased Line
vMEPs	Virtual MEPS
VNI	VXLAN Network Identifier
VoD	Video on Demand
VoIP	Voice over IP
VP	Virtual Path
VPC	Virtual Path Connection
VPI	Virtual Path Identifier

Table 23 V (Continued)

Acronym	Definition
VPLS	Virtual Private LAN Service
VPN	Virtual Private Network
VPRN	Virtual Private Routed Network
VPWS	Virtual Private Wire Service
VQM	Video Quality Monitoring
VRF	Virtual Routing and Forwarding table
vRGW	Virtual Residential Gateway
VRID	Virtual Router ID
VRP	Validated ROA Payload
VRRP	Virtual Router Redundancy Protocol
VSA	Vendor Specific Attribute
VSC	Virtual Services Controller
VSD	Virtual Services Directory
VSI-ID	Virtual Switch Instance identifier
VSM	Vendor-Specific Message
VSO	Vendor-Specific Option
VSP	Virtual Services Platform
VT	Validity Time Virtual Trunk
VTEP	VxLAN Tunnel Endpoint
VTP	Virtual Trunk Protocol
VxLAN	Virtual eXtensible Local Area Network

Table 24 W

Acronym	Definition
WAC	WiiMAX Access Controller
WAN	Wide Area Network

Table 24 **W (Continued)**

Acronym	Definition
WAP	Wireless Application Protocol
WLAN	Wireless Local Area Network
WLAN-GW	WLAN Gateway
WPP	Web Authentication Protocol
WRED	Weighted Random Early Detection Weighted Random Early Discard
WRR	Weighted-Round-Robin

Table 25 **X**

Acronym	Definition
X.21	ITU-T X-series Recommendation 21
XMPP	eXtensible Messaging and Presence Protocol

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