

# Acronyms and Abbreviations

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The acronyms and abbreviations are sorted based on themselves, and not their expansions. In the event that the acronym describes a particular company's product, or is only meaningful in the context of another entity, we cite that company or entity in parentheses.

<b>AAA</b>	Authentication, Authorization and Accounting
<b>AC</b>	Access Controller
<b>ACL</b>	Access Control List
<b>ACS</b>	Auto-Configuration Server
<b>AP</b>	(Wireless) Access Point
<b>API</b>	Application Programming Interface
<b>APIC</b>	Application Policy Infrastructure Controller
<b>APIC-DC</b>	Application Policy Infrastructure Controller—Data Center
<b>APIC-EM</b>	Application Policy Infrastructure Controller—Enterprise Module
<b>AR</b>	Access Router
<b>ARP</b>	Address Resolution Protocol
<b>ARPANET</b>	Advanced Research Projects Agency Network
<b>AS</b>	Autonomous System
<b>ASF</b>	Apache Software Foundation
<b>ASIC</b>	Application-Specific Integrated Circuit
<b>AWS</b>	Amazon Web Services
<b>BGP</b>	Border Gateway Protocol
<b>BGP-LS</b>	Border Gateway Protocol Link State
<b>BMP</b>	BGP Monitoring Protocol
<b>BOM</b>	Bill of Materials
<b>BSD</b>	Berkeley Software Distribution
<b>B-VID</b>	Backbone VLAN ID
<b>BYOD</b>	Bring Your Own Device
<b>CAM</b>	Content-Addressable Memory
<b>CAPEX</b>	Capital Expense
<b>CE</b>	Control Element
<b>CE</b>	Customer Edge
<b>CLA</b>	Contributor License Agreement
<b>CLI</b>	Command Line Interface
<b>COPS</b>	Common Open Policy Service
<b>CoS</b>	Class of Service

<b>COSC</b>	Cisco Open SDN Controller
<b>COTS</b>	Common Off-the-Shelf
<b>CPE</b>	Customer Premises Equipment
<b>CPU</b>	Central Processing Unit
<b>CSMA/CD</b>	Carrier-Sense Multiple-Access/Collision Detect
<b>CSPF</b>	Constrained Shortest Path First
<b>C-VID</b>	Customer VLAN ID
<b>C-VLAN</b>	Customer VLAN ID
<b>DCAN</b>	Devolved Control of ATM Networks
<b>DCO</b>	Developer Certificate of Origin
<b>DDoS</b>	Distributed Denial of Service
<b>DHCP</b>	Dynamic Host Configuration Protocol
<b>DMVPN</b>	Dynamic Multipoint Virtual Private Networks
<b>DNS</b>	Domain Name System
<b>DoS</b>	Denial of Service
<b>DOVE</b>	Distributed Overlay Virtual Ethernet (IBM)
<b>DPDK</b>	Data Plane Development Kit (Intel)
<b>DPI</b>	Deep Packet Inspection
<b>DSCP</b>	Differentiated Services Code Point
<b>DSL</b>	Digital Subscriber Loop (aka Digital Subscriber Line)
<b>DVR</b>	Digital Video Recorder
<b>DWDM</b>	Dense Wavelength Division Multiplexing
<b>EBGP</b>	External Border Gateway Protocol
<b>ECMP</b>	Equal-Cost Multi-Path
<b>EID</b>	Endpoint Identifiers
<b>EIGRP</b>	Enhanced Interior Gateway Routing Protocol
<b>EMS</b>	Element Management System
<b>EPC</b>	Evolved Packet Core
<b>EPL</b>	Eclipse Public License
<b>ETSI</b>	European Telecommunications Standards Institute
<b>EVB</b>	Edge Virtual Bridging
<b>FCoE</b>	Fiber Channel over Ethernet
<b>FDDI</b>	Fiber Distributed Data Interface
<b>FE</b>	Forwarding Element
<b>FHRP</b>	First Hop Redundancy Protocol
<b>ForCES</b>	Forwarding and Control Element Separation
<b>FOSS</b>	Free and Open Source Software
<b>FSF</b>	Free Software Foundation
<b>Gbps</b>	Gigabits per second
<b>GPL</b>	General Public License
<b>GSMP</b>	General Switch Management Protocol
<b>HA</b>	High Availability
<b>HSRP</b>	Hot Standby Router Protocol
<b>HSS</b>	Home Subscriber Server

<b>HTTP</b>	HyperText Transfer Protocol
<b>HTTPS</b>	HyperText Transfer Protocol Secure
<b>I2RS</b>	Interface to the Routing System
<b>IaaS</b>	Infrastructure as a Service
<b>IDS</b>	Intrusion Detection System
<b>IEEE</b>	Institute of Electrical and Electronics Engineers
<b>IETF</b>	Internet Engineering Task Force
<b>IGP</b>	Interior Gateway Protocol
<b>IMS</b>	IP Multimedia Subsystem
<b>InCNTRE</b>	Indiana Center for Network Translational Research and Education
<b>IP</b>	Internet Protocol
<b>IPS</b>	Intrusion Prevention System
<b>IPv4</b>	Internet Protocol Version 4
<b>IPv6</b>	Internet Protocol Version 6
<b>IoT</b>	Internet of Things
<b>ISG</b>	Industry Specification Group (ETSI)
<b>I-SID</b>	Service Instance VLAN ID
<b>IS-IS</b>	Intermediate System to Intermediate System
<b>ISP</b>	Internet Service Provider
<b>IT</b>	Information Technology
<b>ITU</b>	International Telecommunications Union
<b>JSON</b>	JavaScript Object Notation
<b>KVM</b>	Kernel-based Virtual Machine
<b>LAG</b>	Link Aggregation
<b>LAN</b>	Local Area Network
<b>LIFO</b>	Last-In-First-Out
<b>LISP</b>	Locator/ID Separation Protocol
<b>LSP</b>	Label Switched Path
<b>MAC</b>	Media Access Control
<b>Mbps</b>	Megabits per second
<b>MD-SAL</b>	Model-Driven Service Abstraction Layer
<b>mGRE</b>	Multipoint GRE
<b>MIB</b>	Management Information Base
<b>MPLS</b>	Multiprotocol Label Switching
<b>MPLS-TE</b>	MPLS Traffic Engineering
<b>MSDC</b>	Massively Scaled Data Center
<b>MSTP</b>	Multiple Spanning Tree Protocol
<b>MTU</b>	Maximum Transmission Unit
<b>NAC</b>	Network Access Control
<b>NAT</b>	Network Access Translation
<b>NBI</b>	Northbound interface
<b>NE</b>	Network Element
<b>NEM</b>	Network Equipment Manufacturer
<b>NETCONF</b>	Network Configuration Protocol

<b>NFV</b>	Network Functions Virtualization
<b>NFVI</b>	NFV Infrastructure
<b>NFVO</b>	NFV Orchestrator
<b>NHRP</b>	Next-Hop Resolution Protocol
<b>NIC</b>	Network Interface Card
<b>NMS</b>	Network Management System
<b>NOS</b>	Network Operating System
<b>NS</b>	Network Service
<b>NTT</b>	Nippon Telegraph and Telephone
<b>NV</b>	Network Virtualization
<b>NVGRE</b>	Network Virtualization using Generic Routing Encapsulation
<b>nvo3</b>	Network Virtualization Overlays
<b>NVP</b>	Network Virtualization Platform (Nicira)
<b>OCh</b>	Optical Channel
<b>ODM</b>	Original Device Manufacturer
<b>ODU</b>	Optical Data Unit
<b>ODUCLT</b>	Optical Data Unit Client
<b>OEM</b>	Original Equipment Manufacturer
<b>OF-Config</b>	OpenFlow Configuration and Management Protocol
<b>OFLS</b>	OpenFlow Logical Switch
<b>ONE</b>	Open Networking Environment
<b>ONIE</b>	Open Network Install Environment
<b>onePK</b>	Open Networking Environment Platform Kit
<b>ONF</b>	Open Networking Foundation
<b>ONOS</b>	Open Network Operating System
<b>ONRC</b>	Open Networking Research Center
<b>ONUG</b>	Open Networking User Group
<b>OOD</b>	Out-of-Order Delivery
<b>OPEX</b>	Operational Expense
<b>OSGi</b>	Open Services Gateway initiative
<b>OSI</b>	Open Systems Interconnection
<b>OSS</b>	Operational Support System
<b>OTN</b>	Optical Transport Network
<b>OTWG</b>	Optical Transport Working Group
<b>OVS</b>	Open vSwitch
<b>OVSDB</b>	Open vSwitch Database Management Protocol
<b>PaaS</b>	Platform as a Service
<b>PAN</b>	Personal Area Network
<b>PBR</b>	Policy-Based Routing
<b>PCC</b>	Path Computation Client
<b>PCE</b>	Path Computation Element
<b>PCE-P</b>	Path Computation Element Protocol
<b>PCRF</b>	Policy and Charging Rules Function
<b>P-CSCF</b>	Proxy Call Session Control Function

<b>PE</b>	Provider Edge
<b>PE-VLAN</b>	Provider Edge VLAN
<b>PGW</b>	Packet Data Network Gateway
<b>PHY</b>	Physical Layer and Physical Layer Technology
<b>PKI</b>	Public Key Infrastructure
<b>PNF</b>	Physical Network Function
<b>PoA</b>	Point of Access
<b>PoC</b>	Proof of Concept
<b>POJO</b>	Plain Old Java Object
<b>PoS</b>	Point of Service
<b>QoS</b>	Quality of Service
<b>RADIUS</b>	Remote Authentication Dial in User Service
<b>RAN</b>	Radio Access Network
<b>REST</b>	Representational State Transfer
<b>RESTCONF</b>	REST-based NETCONF
<b>RFC</b>	Request for Comments
<b>RISC</b>	Reduced Instruction Set Computing
<b>RLOC</b>	Routing Locators
<b>ROI</b>	Return on Investment
<b>RPC</b>	Remote Procedure Call
<b>RSTP</b>	Rapid Spanning Tree Protocol
<b>RSVP</b>	Resource Reservation Protocol
<b>SaaS</b>	Software as a Service
<b>SAL</b>	Service Abstraction Layer
<b>S-CSCF</b>	Serving Call Session Control Function
<b>SDH</b>	Synchronous Digital Hierarchy
<b>SDM</b>	Software Defined Mobility
<b>SDN</b>	Software Defined Networking
<b>SDN VE</b>	Software Defined Network for Virtual Environments
<b>S-GW</b>	Serving Gateway
<b>SIP</b>	Session Initiation Protocol
<b>SLA</b>	Service Level Agreement
<b>SMI</b>	Structure of Management Information
<b>SNMP</b>	Simple Network Management Protocol
<b>SONET</b>	Synchronous Optical Networking
<b>SP</b>	Service Provider
<b>SPAN</b>	Switch Port ANalyzer
<b>SPB</b>	Shortest Path Bridging
<b>STP</b>	Spanning Tree Protocol
<b>STT</b>	Stateless Transport Tunneling
<b>S-VID</b>	Service Provider VLAN ID
<b>S-VLAN</b>	Service Provider VLAN ID
<b>TAM</b>	Total Available Market
<b>TCAM</b>	Ternary Content-Addressable Memory

<b>TE</b>	Traffic Engineering
<b>TLV</b>	Type-Length-Value
<b>TL1</b>	Transaction Language 1
<b>ToR</b>	Top-of-Rack
<b>ToS</b>	Type of Service
<b>TRILL</b>	Transparent Interconnection of Lots of Links
<b>TSO</b>	TCP Segmentation Offload
<b>TTI</b>	Trail Trace Identifier
<b>TTL</b>	Time-To-Live
<b>TTP</b>	Table Type Pattern
<b>VAR</b>	Value-Added Reseller
<b>VEPA</b>	Virtual Edge Port Aggregator
<b>VIM</b>	Virtual Infrastructure Manager
<b>VLAN</b>	Virtual Local Area Network
<b>VNF</b>	Virtual Network Function
<b>VNF-FG</b>	VNF Forwarding Graph
<b>VoIP</b>	Voice over IP
<b>VTEP</b>	Virtual Tunnel Endpoint or VXLAN Tunnel Endpoint
<b>VXLAN</b>	Virtual eXtensible Local Area Network
<b>WaaS</b>	WiFi-as-a-Service
<b>WAE</b>	WAN Automation Engine
<b>WAN</b>	Wide Area Network
<b>Wintel</b>	Refers to the collaboration of Microsoft (through their Windows OS) with Intel (through their processors) in creating a de facto standard for a personal computer platform.
<b>WLAN</b>	Wireless Local Area Network
<b>XaaS</b>	Everything as a Service
<b>XML</b>	Extensible Markup Language
<b>XMPP</b>	Extensible Messaging and Presence Protocol
<b>XNC</b>	Extensible Network Controller
<b>YANG</b>	Yet Another Next Generation data modeling language