

## Virtualized Multiservice Data Center (VMDC) Abbreviations and Acronyms

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## **VMDC** Abbreviations and Acronyms

Table 1 lists Virtualized Multiservice Data Center (VMDC) abbreviations and acronyms, including Data Center Interconnect (DCI) terms, for authoring and customer reference.

Table 1 VMDC Abbreviations and Acronyms

Abbreviation	Expanded
10GE	Ten Gigabit Ethernet
1R2C	One Rate 2 Colors
AAA	Authentication, Authorization and Accounting
AAG	At A Glance (doc type)
ABR	Area Border Router
ACE	Application Control Engine (Cisco)
ACL	Access Control List
АН	Authentication Header
ARP	Address Resolution Protocol
AS	Autonomous System
ASA	Adaptive Security Appliance (Cisco)
ASBR	Autonomous System Border Router
ASIC	Application-Specific Integrated Circuit
AVG	Active Virtual Gateway
BDR	Backup Designated Router
BECN	Backward Explicit Congestion Notification (Frame Relay QoS)
BGP	Border Gateway Protocol
Bidir-PIM	Bidirectional Protocol Independent Multicast
BPDU	Bridge Protocol Data Unit
BVI	Bridge Virtual Interface
CAM	Content Addressable Memory
CBWFQ	Class-Based Weighted Fair Queuing (QoS)



Table 1 VMDC Abbreviations and Acronyms (continued)

Abbreviation	Expanded
CDP	Cisco Discovery Protocol (Cisco)
CE	Cache Engine
CE	Customer Edge
CEF	Cisco Express Forwarding
CFS	Cisco Fabric Service
CIFS	Common Internet File System
CIR	Committed Information Rate
CLI	Command Line Interface
CNA	Converged Network Adapter
CoPP	Control Plane Policing
CPU	Central Processing Unit
CSD	Cisco Secure Desktop (Cisco)
CSSC	Cisco Secure Services Client
CTA	Cisco Trust Agent
CTI	Common Test Interface
CWDM	Coarse Wavelength Division Multiplexing
DC	Data Center
DCBX	Data Center Bridging Exchange (IEEE 802.1AB)
DCE	Data Center Ethernet
DCI	Data Center Interconnect
DC-PE	Data Center Provider Edge
DCNM	Data Center Network Manager
DEC	Distributed EtherChannel
DF	Designated Forwarder
DFC	Distributed Forwarding Card (Cisco)
DG	Design Guide (doc type)
DHCP	Dynamic Host Control Protocol
DIG	Design and Implementation Guide
DM	Device Manager
DMZ	Demilitarized Zone
DR	Designated Router
DR	Disaster Recovery
DRS	Distributed Resource Scheduling
DSN	Data Center Service Node
DUT	Device Under Test
DVS	Distributed Virtual Switch
DWDM	Dense Wave Division Multiplexing
DWRR	Deficit Weighted Round Robin
	Extensible Authentication Protocol

Table 1 VMDC Abbreviations and Acronyms (continued)

Abbreviation	Expanded
EAPOL	Extensible Authentication Protocol over LAN
eBGP	External Border Gateway Protocol
ECMP	Equal Cost Multipathing
EIGRP	Enhanced Interior Gateway Routing Protocol
EOBC	Ethernet Out-of-Band Channel
EoMPLS	Ethernet over Multiprotocol Label Switching
EOU	EAP-over-UDP
ERSPAN	Encapsulated Remote Switched Port Analyzer
ESP	Encapsulating Security Protocol
ETS	Enhanced Transmission Selection
FC	Fibre Channel
FC-GS	Fibre Channel Generic Services
FCoE	Fibre Channel over Ethernet
FCS	First Customer Ship
FE	Fast Ethernet
FEC	Fast (Ethernet) EtherChannel
FHR	First Hop Router
FIB	Forwarding Information Base
FM	Fabric Manager
FSPF	Fabric Shortest Path First
FSU	Fast Software Upgrade
FT	Fault-Tolerant
FTP	File Transfer Protocol
FWSM	Firewall Services Module (Cisco)
GBIC	Gigabit Interface Converter
GE	Gigabit Ethernet
GEC	Gigabit (Ethernet) EtherChannel
GLBP	Gateway Load Balancing Protocol
GUI	Graphical User Interface
НА	High Availability
HBA	Host Bus Adapter
HQoS	Hierarchical QoS
HSRP	Hot Standby Router Protocol
HTTP	Hyper Text Transfer Protocol
IaaS	Infrastructure as a Service
iBGP	Internal Border Gateway Protocol
ICMP	Internet Control Message Protocol
ICS	Integrated Compute Stack
ICV	Integrity Check Value

Table 1 VMDC Abbreviations and Acronyms (continued)

Abbreviation	Expanded
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IETF	Internet Engineering Task Force
IG	Implementation Guide (doc type)
IGMP	Internet Group Messaging Protocol
IGP	Interior Gateway Protocol
IKE	Internet Key Exchange
IOPS	Input/Output Operations Per Second
IP	Internet Protocol
IPC	Inter-Process Communication
IPM	Internetwork Performance Monitor
IPsec	IP Security
IPv4	Internet Protocol version 4
ISAKMP	Internet Security Association and Key Management Protocol
ISL	Inter-Switch Links
L2	(OSI Model) Layer 2
L3	(OSI Model) Layer 3
LACP	Link Aggregation Control Protocol
LAN	Local Area Network
LDP	Label Distribution Protocol
LDAP	Lightweight Directory Access Protocol
LHR	Last Hop Router
LP1X	LAN Port 802.1x
LPIP	LAN Port IP
LR	Long Range
LSA	Link State Advertisement
LUN	Logical Unit Number
MAC	Media Access Control
MACsec	MAC Security
MDS	Multilayer Director Switch
MEC	Multi-Chassis EtherChannel
MIB	Management Information Base
MLS	Multi-Layer Switching
MPLS	Multiprotocol Label Switching
MPLS-TC	MPLS Traffic Class
MQC	Modular QoS CLI (Cisco)
MSDP	Multicast Source Discovery Protocol
MSFC	Multilayer Switch Feature Card
MST	Multiple Spanning Tree
MSTI	Multiple Spanning Tree Instance

Table 1 VMDC Abbreviations and Acronyms (continued)

MSTP Multiservice Transport Platform MTU Maximum Transmission Unit MUX Multiplex NAC Network Admission Control NAD Network Access Device NAS Network Attached Storage NAT Network Address Translation NDE Netflow Data Export NFS Network File System NGN Next Generation Network NIC Network Interface Card NSF Non-Stop Forwarding NTP Network Time Protocol OEO Optical-to-Electrical-to-Optical OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	Abbreviation	Expanded
MUX NAC Network Admission Control NAD Network Access Device NAS Network Attached Storage NAT Network Address Translation NDE Netflow Data Export NFS Network File System NGN Next Generation Network NIC Network Interface Card NSF Non-Stop Forwarding NTP Network Time Protocol OEO Optical-to-Electrical-to-Optical OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	MSTP	Multiservice Transport Platform
NAC Network Admission Control NAD Network Access Device NAS Network Attached Storage NAT Network Address Translation NDE Netflow Data Export NFS Network File System NGN Next Generation Network NIC Network Interface Card NSF Non-Stop Forwarding NTP Network Time Protocol OEO Optical-to-Electrical-to-Optical OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	MTU	Maximum Transmission Unit
NAD Network Access Device NAS Network Attached Storage NAT Network Address Translation NDE Netflow Data Export NFS Network File System NGN Next Generation Network NIC Network Interface Card NSF Non-Stop Forwarding NTP Network Time Protocol OEO Optical-to-Electrical-to-Optical OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	MUX	Multiplex
NAS Network Attached Storage  NAT Network Address Translation  NDE Netflow Data Export NFS Network File System  NGN Next Generation Network NIC Network Interface Card  NSF Non-Stop Forwarding NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NAC	Network Admission Control
NAT Network Address Translation  NDE Netflow Data Export  NFS Network File System  NGN Next Generation Network  NIC Network Interface Card  NSF Non-Stop Forwarding  NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NAD	Network Access Device
NDE Netflow Data Export  NFS Network File System  NGN Next Generation Network  NIC Network Interface Card  NSF Non-Stop Forwarding  NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NAS	Network Attached Storage
NFS Network File System  NGN Next Generation Network  NIC Network Interface Card  NSF Non-Stop Forwarding  NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NAT	Network Address Translation
NGN Next Generation Network  NIC Network Interface Card  NSF Non-Stop Forwarding  NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NDE	Netflow Data Export
NIC  Network Interface Card  NSF  Non-Stop Forwarding  NTP  Network Time Protocol  OEO  Optical-to-Electrical-to-Optical  OID  Object Identifier  OIR  Online Insertion/Removal  ONS  Optical Networking System  OOB  Out-of-Band	NFS	Network File System
NSF Non-Stop Forwarding  NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NGN	Next Generation Network
NTP Network Time Protocol  OEO Optical-to-Electrical-to-Optical  OID Object Identifier  OIR Online Insertion/Removal  ONS Optical Networking System  OOB Out-of-Band	NIC	Network Interface Card
OEO Optical-to-Electrical-to-Optical OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	NSF	Non-Stop Forwarding
OID Object Identifier OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	NTP	Network Time Protocol
OIR Online Insertion/Removal ONS Optical Networking System OOB Out-of-Band	OEO	Optical-to-Electrical-to-Optical
ONS Optical Networking System OOB Out-of-Band	OID	Object Identifier
OOB Out-of-Band	OIR	Online Insertion/Removal
	ONS	Optical Networking System
	OOB	Out-of-Band
OPEX Operating Expense	OPEX	Operating Expense
OSI Open Systems Interconnect	OSI	Open Systems Interconnect
OSPF Open Shortest Path First	OSPF	Open Shortest Path First
P2P Point-to-Point	P2P	Point-to-Point
PAgP Port Aggregation Protocol	PAgP	Port Aggregation Protocol
PAT Port Address Translation	PAT	Port Address Translation
PB PetaByte	PB	PetaByte
PDU Protocol Data Unit	PDU	Protocol Data Unit
PFC Priority Flow Control	PFC	Priority Flow Control
PFC Policy Feature Card	PFC	Policy Feature Card
PIM Protocol Independent Multicast	PIM	Protocol Independent Multicast
PIM-DM Protocol Independent Multicast – Dense Mode	PIM-DM	Protocol Independent Multicast – Dense Mode
PIM-SP Protocol Independent Multicast – Sparse Mode	PIM-SP	Protocol Independent Multicast – Sparse Mode
PIR Peak Information Rate	PIR	Peak Information Rate
PKL Peer Keepalive Link	PKL	Peer Keepalive Link
Pod <sup>1</sup> Point of Delivery	Pod <sup>1</sup>	Point of Delivery
PoE Power over Ethernet	PoE	Power over Ethernet
PVST Per-VLAN Spanning-Tree	PVST	Per-VLAN Spanning-Tree
PVT Private	PVT	
QoS Quality of Service	QoS	Quality of Service
RAC Real Application Cluster)	RAC	Real Application Cluster)

Table 1 VMDC Abbreviations and Acronyms (continued)

D A DILIG	anded
RADIUS Ren	note Authentication Dial-In User Service
RHI Rou	ate Health Injection
RIP Rou	ate Information Protocol
ROADM Rec	configurable Optical Add/Drop Multiplexer
RP (Multicast) Ren	ndezvous Point
RP (Supervisor Architecture) Rou	ate Processor
RPF Rev	verse Path Forwarding
RPR+ Rou	ate Processor Redundancy Plus
rPVST+ Rap	oid Per-VLAN Spanning-Tree Plus
RSH Ren	note Shell
rSPAN Ren	note Switched Port Analyzer
SA Sec	curity Association
SA Sou	irce Active
SADB Sect	eurity Association Database
SAN Stor	rage Area Network
SCSI Sma	all Computer System Interface
SLA Serv	vice Level Agreement
SLA Serv	vice License Agreement
SLB Serv	ver Load Balancing
SNMP Sim	nple Network Management Protocol
SP Serv	vice Provider
SP Swi	itch Processor
SPAN Swi	itched Port Analyzer
SP-DC Serv	vice Provider Data Center
SPI Sec	urity Parameter Index
SP-NGN Serv	vice Provider Next Generation Network
SPT Sho	ortest Path Tree
SR Sho	ort Range
SRM Site	e Recovery Manager
SSH Sec	ure Shell
SSL Sec	ure Sockets Layer
SSO Stat	teful Switchover
STP Spa	nning-Tree Protocol
STP Spa	nning Tree Protocol
SVI Swi	itched Virtual Interface
TACACS Terr	minal Access Controller Access-Control System
TCAM Terr	nary Content Addressable Memory
TCP Trai	nsmission Control Protocol
TDEV This	n Device

Table 1 VMDC Abbreviations and Acronyms (continued)

Abbreviation	Expanded
TenGE	Ten Gigabit Ethernet
TFTP	Trivial File Transfer Protocol
TLS	Transport Layer Security
TTM	Time to Market
UCS	Unified Computing System (Cisco)
UCSM	Unified Computing System Manager (Cisco)
UDLD	Unidirectional Link Detection
UDLD-AM	Unidirectional Link Detection – Aggressive Mode
UDP	User Datagram Protocol
uRPF	Unicast Reverse Path Forwarding
VCE	Virtual Computing Environment
vCPU	Virtual CPU
vDS	vNetwork Distributed Switch
VEM	Virtual Ethernet Module
vFW	Virtual Firewall
VG	Virtual Gateway
VIC	Virtual Interface Card
VLAN	Virtual LAN
VM	Virtual Machine
VMAC	Virtual MAC
VMDC	Virtualized Multiservice Data Center (Cisco)
vMotion	Virtual Motion
VNMC	Virtual Network Management Center
VOQ	Virtual Output Queue
vPC	Virtual Port-Channel
VQI	Virtual Queue Index
VRF	Virtual Routing and Forwarding
VSAN	Virtual SAN
VSG	Virtual Security Gateway (Cisco)
VSL	Virtual Switch Link
VSS	Virtual Switch System (Cisco)
VTP	VLAN Trunking Protocol
WCCP	Web Cache Communication Protocol
WRED	Weighted Random Early Detection
	1

<sup>1.</sup> A basic infrastructure module that is a logical repeatable construct with predictable infrastructure characteristics and deterministic functions. A pod identifies a modular unit of data center components and enables customers to add network, compute, and storage resources incrementally.