New and Changed Information

This section provides release-specific information for each new and changed feature in the *Cisco Nexus 7000 Series NX-OS MPLS Configuration Guide*.

Table 1 summarizes the new and changed features for the Cisco Nexus 7000 Series NX-OS MPLS Configuration Guide and tells you where they are documented.Yur software release might not support all the features in this document. For the latest caveats and feature information, see the Bug Search Tool at https://tools.cisco.com/bugsearch/ and the release notes for your software release.

Table i-1 New and Changed Information for MPLS

Feature	Description	Changed in Release	Where Documented
MPLS over GRE to MPLS Stitching	Starting from Cisco NX-OS Release 8.4(2), GRE-based Layer 3 VPN interwork with MPLS or IP VPNs is supported on M3-series I/O modules.	8.4(2)	Chapter 23, “Configuring MPLS over GRE”
MPLS over GRE	Starting from Cisco NX-OS Release 8.3(1), MPLS over GRE is supported on M3-Series I/O modules.	8.3(1)	Chapter 23, “Configuring MPLS over GRE”
Ethernet over Multiprotocol Label Switching	Starting from Cisco NX-OS Release 8.2(1), all EoMPLS functionalities, except Ethernet Flow Points (EFP), Service Instances and Bridge Domains, are supported on M3-Series I/O modules.	8.2(1)	Chapter 27, “Configuring Ethernet over MPLS”
Virtual Private LAN Service	Starting from Cisco NX-OS Release 8.2(1), all VPLS functionalities, except Ethernet Flow Points (EFP), Service Instances and Bridge Domains, are supported on M3-Series I/O modules.	8.2(1)	Chapter 29, “Configuring Virtual Private LAN Service”
BGP VPNv4 Multipath	This feature achieves Equal Cost Multi-Path (ECMP) for traffic flowing from an Autonomous System Border Router (ASBR) towards the Provider Edge (PE) device in an Multi-Protocol Label Switching (MPLS) cloud network by using a lower number of prefixes and MPLS labels.	8.0(1)	BGP VPNv4 Multipath
M3 Series module support	MPLS Layer 3 VPNs are supported on M3 Series modules.	7.3(0)DX(1)	Chapter 20, “Guidelines and Limitations for MPLS Layer 3 VPNs”

Table i-1 New and Changed Information for MPLS (continued)

Feature	Description	Changed in Release	Where Documented
MPLS TE event logging	Added support for logging the LSP and FRR events	7.3(0)D1(1)	Chapter 10, "Logging Label Switched Path (LSP) Events" Chapter 10, "Logging Fast Reroute (FRR) Events"
MPLS TE Cost Limit	Added support for configuring cost limit for TE tunnels.	7.3(0)D1(1)	Chapter 10, "Configuring Cost Limit"
InterAS Option B	This feature was enhanced with the InterAS option B and InterAS option B (with RFC 3107) provisions. An IBGP VPNv4/v6 session between DC edge routers and an EBGP VPNv4/v6 session between DC edge routers and WAN routers can be established without a per VRF iBGP session between DC edge routers..	7.2(0)D1(1)	Chapter 24, "InterAS Option B"
Configuring Automatic Bandwidth Adjustment for MPLS TE Tunnels	Added information about automatic bandwidth adjustment for MPLS TE tunnels.	6.2(6)	Chapter 11, "Configuring Automatic Bandwidth Adjustment for MPLS TE Tunnels"
Any Transport over MPLS	Added Any Transport over MPLS (AToM), which accommodates different types of Layer 2 packets, including Ethernet and VLAN, to enable the service provider to transport different types of traffic over the backbone and accommodate all types of customers.	6.2(2)	Chapter 25, "Configuring Any Transport over MPLS"
Any Transport over MPLS Pseudowire provisioning	Added pseudowire provisioning for AToM. This feature enables you to configure static pseudowires in cases where you cannot use directed control protocols, such as the Label Distribution Protocol or Resource Reservation Protocol over traffic-engineered tunnels (RSVP-TE).	6.2(2)	Chapter 26, "Configuring Any Transport over MPLS Pseudowire Provisioning"
Ethernet over Multiprotocol Label Switching	Added Ethernet over Multiprotocol Label Switching (EoMPLS), which is a Virtual Private Wire Service (VPWS) that is used to carry Layer 2 Ethernet frames over an MPLS network. EoMPLS enables service providers to offer emulated Ethernet services over existing MPLS networks.	6.2(2)	Chapter 27, "Configuring Ethernet over MPLS"
EoMPLS Graceful Restart	Added support for a switch that is configured with the Label Distribution Protocol (LDP) Graceful Restart (GR) to assist its neighboring switches recover gracefully from an interruption in service.	6.2(2)	Chapter 28, "Configuring EoMPLS Layer 2 VPN Graceful Restart"

Table i-1 New and Changed Information for MPLS (continued)

Feature	Description	Changed in Release	Where Documented
Layer 2 and Layer 3 load balancing co-existence	Added Layer 3 VPN and Layer 2 VPN forwarding that is performed independently on the switch using two different types of adjacencies. The forwarding is not be impacted by having a different method of load balancing for the Layer 2 VPN.	6.2(2)	Chapter 22, "Configuring MPLS Layer 3 VPN Load Balancing"
MPLS LSP Ping/Traceroute for LDP/TE and LSP Ping for VCCV	Added support for Virtual Circuit Connectivity Verification (VCCV) in Layer 2 VPN Operations, Administration, and Maintenance (OAM).	6.2(2)	Chapter 34, "Verifying Connectivity with MPLS LSP Ping and Traceroute"
MPLS over GRE	Added a mechanism for tunneling Multiprotocol Label Switching (MPLS) packets over a non-MPLS network.	6.2(2)	Chapter 23, "Configuring MPLS over GRE"
OSPF Sham-Link Support for MPLS VPN	Added a sham-link to connect VPN client sites that run Open Shortest Path First (OSPF) and share back door OSPF links in a Multiprotocol Label Switching (MPLS) VPN configuration.	6.2(2)	Chapter 20, "Configuring MPLS Layer 3 VPNs"
Virtual Private LAN Service	Added a point-to-multipoint service between multiple customer sites using a mesh of point-to-point pseudowires over the provider core to emulate a LAN between the sites.	6.2(2)	Chapter 29, "Configuring Virtual Private LAN Service"
VPLS VPN Pseudowire Redundancy	Added support for detecting a failure in the network and rerouting the Layer 2 service to another endpoint that can continue to provide the service.	6.2(2)	Chapter 30, "Configuring Layer 2 VPN Pseudowire Redundancy"
VPLS Dual-Homing with a vPC	Added support for integrating Virtual Private LAN (VPLS) with the virtual port channel (vPC) functionality in active-standby mode.	6.2(2)	Chapter 31, "Configuring Layer 2 VPN VPLS Dual-Homing with a vPC"
MPLS	Added support for M2 Series modules.	6.1(1)	Chapter 1, "Overview"
MPLS static label binding	Changed the maximum value for the MPLS static label range to 471804.	6.1(1)	Chapter 8, "Configuring MPLS Static Label Binding"
MVPNs	Added support for multicast GRE tunnel interfaces for PE-CE routing with MVPN.	6.1(1)	Chapter 32, "Configuring MVPNs"
MPLS	F2 Series modules do not support MPLS.	6.0(1)	Chapter 1, "Overview"
MPLS Layer 3 VPNs	Added matching and setting support for import maps on standard and extended communities for Cisco NX-OS Release 5.2(7) and later 5.2 releases.	5.2(7)	Chapter 20, "Configuring MPLS Layer 3 VPNs"
MPLS Layer 3 VPNs	Removed the MPLS license requirement for the EIGRP site of origin feature.	5.2(5)	Chapter 20, "Configuring MPLS Layer 3 VPNs"

Table i-1 New and Changed Information for MPLS (continued)

Feature	Description	Changed in Release	Where Documented
MVPNs	Added support for multicast GRE tunnel interfaces for PE-CE routing with MVPN.	5.2(4)	Chapter 32, "Configuring MVPNs"
MPLS	MPLS was introduced as a feature of Cisco NX-OS software for Nexus 7000 Series switches.	5.2(1)	Chapter 20, "Configuring MPLS Layer 3 VPNs"