



What's New for Cisco IOS XE Bengaluru 17.4.x

This chapter describes the new hardware and software features that are supported on the Cisco NCS 4201 and Cisco NCS 4202 Series routers.

For information on features supported for each release, see [Feature Compatibility Matrix](#).

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What's New in Hardware for Cisco IOS XE Bengaluru 17.4.2

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Bengaluru 17.4.2

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Bengaluru 17.4.x

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Bengaluru 17.4.x

Feature	Description
1 port OC-48/STM-16 or 4 port OC-12/OC-3 / STM-1/STM-4 + 12 port T1/E1 + 4 port T3/E3 CEM Interface Module	
IPv6 VLAN Handoff and 4k iMSG scale	VLAN handoff supports IPv4 and IPv6 local connect and cross connect.

Feature	Description
STS1E Framed SAToP Support on IMA3G	Support on clock recovery on STS-1e controller for framed SAToP on the following modes: <ul style="list-style-type: none"> • T3 • CT3 • VT-15
Carrier Ethernet	
Enabling the Bridge Domain Interface	This feature allows you to configure the platform bdi enable-state up global command.
IP Routing: BFD	
BFD over G8032 and Multi EFP BDI	Scale numbers for BFD and hardware offload are enhanced for the ASR 900 Cisco RSP2 module.
IP Multicast: Multicast	
Multicast SLA Measurement with MLDP	Display of aggregated egress multicast stats for BDI interfaces on Head node, which is part of the MLDP core is supported.
IP SLAs	
Configurable User-Defined and EMIX Packet Size	This feature allows you to configure user-defined and Enterprise traffic (EMIX) packet sizes. Use the following commands to configure user-defined and EMIX packet sizes: <ul style="list-style-type: none"> • packet-size user-defined <i>packet size</i> • packet-size emix sequence <i>emix-sequence</i> [u-value <i>u-value value</i>]
EMIX Sequence Enhancement	This feature enables SAT based support for configurable EMIX traffic pattern in FPGA-based SAT.
Layer 2	
Enhanced Ethernet Data Plane Loopback	The Ethernet data plane loopback feature is enhanced to avoid control packets getting dropped. The enhancement supports internal shaper configuration, when terminal ELB session is activated or deactivated to rate the limit the ELB session traffic. The enhancement is applicable only on internal loopback.
MPLS Basic	

Feature	Description
Re-optimization with Tunnel Bandwidth Modification on Flex-LSP Protect Path	<p>This feature supports Make Before Break (MBB) functionality and thus ensures there is no traffic loss when a MPLS Flex LSP tunnel runs on protect LSP (if working LSP goes down) and the tunnel bandwidth is modified.</p> <p>When the working LSP comes up, use the following command to manually switch from the working to protect LSP:</p> <p>mpls traffic-eng switch tunnel <i>tunnel-ID</i></p>
Segment Routing	
L2VPN over SR-TE Preferred Path	<p>This feature allows you to configure an SR policy as the preferred path for a VPWS or VPLS pseudowire. VPWS or VPLS pseudowires between same PEs can be routed over different SR policies based on the requirements. Prior to this release, you could only steer the traffic using the SR policy for routing IPv4 traffic to a destination pseudowire (over IGP or BGP-LU).</p>
PCE Initiated SR Policy with OSPF Autoroute Announce	<p>This feature enables a steering mechanism in which IGPs automatically use the policy for destination's downstream of the policy end point.</p>
Segment Routing Flexible Algorithm support for TI-LFA uLoop Avoidance, SID Leaking, and ODN with Auto-Steering	<p>This feature allows you to compute Loop Free Alternate (LFA) paths, TI-LFA backup paths, and Microloop Avoidance paths for a particular Flexible Algorithm using the same constraints as the calculation of the primary paths for such Flexible Algorithms, for IS-IS. See Calculation of Flexible Algorithm Path.</p> <p>Inter-area leaking of Flexible Algorithm SIDs and prefixes and selectively filtering the paths that are installed to the MFI are also supported. See Flexible Algorithm Prefix-SID Advertisement and Installation of Forwarding Entries for Flexible Algorithm Paths.</p>
Telemetry (Model-Based Telemetry and Event-Based Telemetry) Support for Performance Measurement	<p>This feature enables Model-Based Telemetry (MDT) and Event-Based Telemetry (EDT) that allow the data to be directed to a configured receiver. This data can be used for analysis and troubleshooting purposes to maintain the health of the network.</p> <p>The sr_5_label_push_enable SDM template is mandatory for this feature to function.</p>

Other Supported Features

- Complete YANG Model for Ethernet EVC Configuration – An Ethernet Virtual Connection (EVC) is defined by the Metro-Ethernet Forum (MEF) as an association between two or more user network interfaces that identifies a point-to-point or multipoint-to-multipoint path within the service provider network. An EVC is a conceptual service pipe within the service provider network.

YANG Data Models—For the list of Cisco IOS XE YANG models available with this release, navigate to <https://github.com/YangModels/yang/tree/master/vendor/cisco/xe/1741>.

Revision statements embedded in the YANG files indicate if there has been a model revision. The README.md file in the same GitHub location highlights changes that have been made in the release.

- Complete YANG Model for CFM Configuration – Ethernet Connectivity Fault Management (CFM) is an end-to-end per-service-instance Ethernet layer operations, administration, and maintenance (OAM) protocol. It includes proactive connectivity monitoring, fault verification, and fault isolation for large Ethernet metropolitan-area networks (MANs) and WANs.

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