What's New in Cisco IOS XE Bengaluru 17.5.x

This chapter describes the new hardware and software features supported on the Cisco ASR 920 Series routers in Cisco IOS XE Bengaluru 17.5.x.

For information on features supported for each release, see Feature Compatibility Matrix.

What's New in Hardware for Cisco IOS XE Bengaluru 17.5.x

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Bengaluru 17.5.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	
Unframed Framing Support on E1 and Channel STM links	In this release, a new framing mode unframed is supported for the 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. With the unframed mode, you can create serial interface under the SDH VC12 mode.
Carrier Ethernet	
CFM Sessions Hardware Offload	This feature enables for effective CPU utilization by offloading the one second CCM interval sessions on the hardware.
Cisco NCS 4200 Series Software	
SNMP Dying Gasp Enhancement	This feature enables FPGA based effective space utilization between Ethernet OAM and SNMP. Use the **platform-oam-snmp-dg-enable** command on Cisco router to configure this feature.
High Availability	

Feature	Description
Secondary ROMMON Version Auto Upgrade	After primary ROMMON version is auto upgraded, secondary ROMMON version auto upgrade process takes place. The secondary ROMMON upgrade is only completed during the next planned manual reload of the router. This is applicable to NCS 4201/4202 routers.
IP SLAs	
TWAMP Light	This feature enables you to configure a TWAMP Light session using the **ip sla responder twamp-light test-session** command.
MPLS Layer 2 VPNs	
EVPN Integrated Routing and Bridging (L2 and L3 Anycast Gateway) and Data Center Interconnect or Border Leaf (Single Homing)	This feature allows the devices to forward both layer 2 or bridged and layer 3 or routed traffic providing optimum unicast and multicast forwarding for both intra-subnets and inter-subnets within and across data centers. Data Center Interconnects (DCI) products are targeted at the Edge or Border Leaf (BL) of data center environments, joining data centers to each other in a point-to-point or point-to-multipoint fashion, or at times extending the connectivity to internet gateways or peering points. This feature is supported on Cisco NCS 4201/4202 routers.
On-Change Notifications for L2VPN Pseudowire	This feature allows you to subscribe on-change Network Configuration Protocol (NETCONF) notifications for L2VPN pseudowire. You can generate an alert from a device when the pseudowire status changes.
QoS: Policing and Shaping	
IP Address Range-Based Filtering Support for CoPP ACL - RSP2	The CoPP ACL feature supports Ingress on In-band Management Loopback interface and Ingress on Data plane interface to block traffic using MPLS. CoPP ACL also enables you to configure the 830 and 5432 ports on the Cisco router. Source IP/Destination IP based filtering are also supported.
Segment Routing	
SR-PM Delay Deduction (Loopback Mode)	This feature improves the SR-PM detection time as the PM probes are not punted on the remote nodes. Also, it does not a require a third-party support for interoperability.
SR-TE PM: Liveness of SR Policy Endpoint	This feature enables Performance Measurement (PM) liveness detection and delay measurement for an SR policy on all the segment lists of every candidate path that are present in the forwarding table using PM probes. Thus, you can easily monitor the traffic path and efficiently detect any drop of traffic due to cable or hardware or configuration failures.This feature provides the following benefits: • End-to-end liveness is verified before activating the candidate path in the forwarding table. • End-to-end liveness failure can trigger re-optimization to another path by deactivating the current path.

Feature	Description
Segment Routing Flexible Algorithm with OSPF	This feature allows you to configure Segment Routing Flexible Algorithm with OSPF. Flexible Algorithm with OSPF supports metric minimization and avoidance, multi-plane, delay metric with rounding, and ODN with auto-steering.
Segment Routing Policy Counters	This feature enables statistic counters to be displayed when traffic passes over the SR-TE tunnel. You can use the command **show segment-routing traffic-eng policy name** *policy name* to view the counters.