

What's New in Cisco IOS XE Cupertino 17.9.x

This chapter describes the new hardware and software features supported on the Cisco ASR 920 Series routers in Cisco IOS XE Cupertino 17.9.x.

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 Cupertino 17.9.8

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.8

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.7

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.7

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.6

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.6

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.5a

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.5a

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.4a

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.4a

There are no new features in this release. This release provides a fix for CSCwh87343: Cisco IOS XE Software Web UI Privilege Escalation Vulnerability. For more information, see cisco-sa-iosxe-webui-privesc-j22SaA4z.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.4

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.4

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.3

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.3

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.2a

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.2a

There are no new software features in this release.

What's New in Hardware for Cisco IOS XE Cupertino 17.9.1

There are no new hardware features in this release.

What's New in Software for Cisco IOS XE Cupertino 17.9.1

Feature	Description
Cisco ASR 920 Series Aggregation Services Router	
Custom Idle Pattern	You can configure idle pattern manually on CEM circuits and verify if it's stable and transmitted to the other end in alarm conditions. You can configure on all CEM PWs in a T1/E1 circuit. Supported on the following IMs on CESoPSN circuits with both partial and full time slots. • 48-port T1/E1 CEM Interface Module • 48-port T3/E3 CEM Interface Module These idle pattern numbers are used for tracking purposes.

Feature	Description
Carrier Ethernet	
Application of QoS Policies on ITU-T Y.1731 Egress Packets	You can now apply QoS policies on Y.1731 egress packets. Operations, Administration, and Maintenance (OAM) functions and mechanisms for Ethernet-based networks are defined in ITU-T Y.1731. With this implementation, you can prioritize OAM traffic; for example, prioritizing operational information used to detect faults and determining network performance.
Layer 2 Control Protocol Enhancements	Layer 2 Control Protocols (L2CP) propagate the MAC address control information to determine which parts of a network the router should forward, tunnel, peer, or discard information. This release supports **forward** and **discard** options for the following protocols: • MRP Block • Cisco BPDU • Cisco STP UplinkFast • Cisco CFM
MPLS Basic	
Support for Co-routed Inter-area Flex-LSP Tunnels	Flex LSPs (also called Associated Bidirectional LSPs) now support inter-area co-routed tunnels. With this implementation, we meet the specific requirements of network operators to create on-demand tunnels by defining an explicit path across different areas.
System Logging	
No Service Password Recovery	This feature provides additional security by removing all user files from bootflash during factory reset. It prevents the malicious users from accessing configuration files stored in bootflash. This feature is only supported on Cisco ASR 920-10SZ-PD, Cisco ASR-920-12CZ-A/D, Cisco ASR-920-4SZ-A/D, Cisco ASR-920-12SZ-IM, ASR-920U-12SZ-IM, Cisco ASR-920-24SZ-IM, Cisco ASR-920-24SZ-M, and Cisco ASR-920-24TZ-M routers.
Upgrading the Software on the Cisco ASR 920 Series Routers	
Support for Firmware Upgrade	This release introduces the firmware upgrade support for ASR 920-10SZ-PD and Cisco ASR-920-24SZ-IM, Cisco ASR-920-24SZ-M, and Cisco ASR-920-24TZ-M routers.
YANG Model Support for QoS Service Group	Cisco YANG now supports QoS Service Groups. Service-Groups allow you to add service instances to groups and apply service policies. You can configure the definition of the service-group and apply the service-group to an interface. With this implementation, you can quickly deploy QoS mechanisms, such as creating a class for email traffic.

Feature	Description
IPv6: RFC 8200 Compliance	Improvements have been made to the Cisco IOS XE platforms to maintain compliance with IETF standards as specified for the Internet Protocol, Version 6 (IPv6) in RFC 8200. The enhancements bring in improved security and better handling of IP packets with fragments.
TPoP T1/E1 clock status display update	Starting with release Cisco IOS XE Cupertino 17.9.1, TPoP T1/E1 clock status is accurately displayed in the recovered clock status output.
Show Tech-Support Enhancements	
Show Tech-Support Enhancements	The **show tech-support** now supports generic commands to provide better debuggability. The **show tech-support platform cef** command now displays IPv4 address information. For more information, see Cisco IOS Configuration Fundamentals Command Reference.