



New Features

This chapter describes the new hardware and software features supported on the Cisco ASR 920 Series Routers for this release.

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- [New Hardware Features in Cisco IOS XE Fuji 16.8.1b, on page 1](#)
- [New Software Features in Cisco IOS XE Fuji 16.8.1c, on page 1](#)
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New Hardware Features in Cisco IOS XE Fuji 16.8.1c

There are no new features in this release.

New Hardware Features in Cisco IOS XE Fuji 16.8.1b

There are no new hardware features in this release.

New Software Features in Cisco IOS XE Fuji 16.8.1c

There are no new features in this release.

New Software Features in Cisco IOS XE Fuji 16.8.1b

- **Egress QoS for IPSLA**

IPSLA packet classification is enabled in egress QoS. This feature enables you to apply classification and queuing on the egress interface for IPSLA packets. The egress interface can be either a Layer 2 interface under bridge domain interface (BDI) or a Layer 3 physical interface.

For more information on Egress QoS for IPSLA, see the [Quality of Service Configuration Guidelines, Cisco IOS XE 16.8.x \(Cisco ASR 920 Series\)](#).

The following new command is introduced for this feature:

- **platform ipsla classify cpu packets**

For more information on the new command, see the [Cisco IOS Quality of Service Solutions Command Reference](#).

• IPv6 QoS support for SDM Template

SDM template is supported for IPv6 QoS. The resources supported for the IPv6 QoS SDM template are updated in the table detailing Feature Resources Allowed by Each SDM Template.

IPv4 ACL and IPv6 ACL are supported together as match criteria in a class-map. To configure more than one access-group per class, you can configure IPv6 ACL and IPv4 ACL configuration in any order in the class-map of policy map.

For more information on IPv6 QoS SDM template, see [SDM Template Configuration Guide, Cisco IOS XE 16.8.x \(Cisco ASR 920 Series\)](#).

• Programmability

- Model-Based AAA— Implements the NETCONF Access Control Model (NACM). NACM is a form of role-based access control (RBAC) specified in RFC 6536.
- NETCONF Global Session Lock and Kill Session—Provides a global lock and the ability to kill non-responsive sessions in NETCONF. During a session conflict or client misuse of the global lock, NETCONF sessions can be monitored via the `show netconf-yang sessions` command, and non-responsive sessions can be cleared using the `clear configuration lock` command.
- NETCONF and RESTCONF Debug commands—Commands for debugging were added.
- NETCONF and RESTCONF IPv6 Support—Data model interfaces (DMIs) support the use of IPv6 protocol. DMI IPv6 support helps client applications to communicate with services that use IPv6 addresses. External facing interfaces will provide dual-stack support; both IPv4 and IPv6.
- 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/1681>

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.

For more information on the Programmability features, see the [Programmability Configuration Guide, Cisco IOS XE Fuji 16.8.x](#).

• Support of DS1 Framed Structure-Agnostic TDM over Packet (SAToP)

Framed Structure-Agnostic TDM over Packet (SAToP) detects an incoming AIS alarm in the DS1 SAToP mode. Framed SAToP helps in the detection of a packet drop and enhances performance by detecting the alarm earlier in the network. This feature is supported on the following interface module:

- 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



Note BERT is not supported in system direction for framed SAToP.

For more information on loopback remote configuration, see [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 Configuration Guide, Cisco IOS XE Fuji 16.8.x \(ASR 920 Series Routers\)](#).

The `cem-group group-number` command is updated with the new keyword `framed` as follows:

- **cem-group** *group-number framed*

For more information on the command, see the [Cisco IOS Interface and Hardware Component Command Reference](#).

- **Support of DS3 Circuit Emulation over Packet (CEP)**

DS3 Circuit Emulation over Packet (CEP) feature is introduced to achieve STS-1 or VC4 CEP configuration on the interface module. Here, T3 or E3 can be mapped to either STS-1 or VC4 to be emulated on a packet network.

This feature is supported on the following interface module:

- 1 port OC-48/ 4 port OC-12/OC-3 + 12 port T1/E1 + 4 port T3/E3 CEM Interface Module

For more information, see [1 port OC-48/STM-16 or 4 port OC-12/OC-3 / STM-1/STM-4 CEM Interface Module Configuration Guide](#).

The show **controllers t3** command is updated with the new keyword path as follows:

show controllers t3 *path*

For more information on the updated command, see [Cisco IOS Interface and Hardware Component Command Reference](#).

- **Support for Seven Level Priority Queues**

The Cisco ASR 920 routers now support seven priority levels: level 1 (high) and level 7 (low). The device places traffic with a high-priority level on the outbound link ahead of traffic with a low-priority level. High-priority packets, therefore, are not delayed behind low-priority packets. For more information, see the [QoS: Congestion Management Configuration Guide, Cisco IOS XE 16.8.x \(Cisco ASR 920\)](#).

- **VPLS over Backup Pseudowire**

Pseudowire redundancy allows you to detect any failure in the network and reroute the Layer 2 service to another endpoint that can continue to provide service by providing additional backup pseudowire. This feature provides the ability to recover from a failure of either the remote provider edge (PE) router or the link between the PE and customer edge (CE) routers.

For more information, see the [MPLS Layer 2 VPNs Configuration Guide, Cisco IOS XE Fuji 16.8.x \(Cisco ASR 920 Series\)](#).

