Cisco ASR 920 Series Aggregation Services Routers Release Notes

First Updated: July 2014

Last Updated: April 23, 2021

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CHAPTER 1

Introduction

This release notes contain information about the Cisco ASR 920 Series Aggregation Services Routers, provides new and changed information for these routers, hardware support, limitations and restrictions, and caveats for Cisco IOS-XE Release 3.13.0S and later releases.

This release notes provides information about the following variants of the Cisco ASR 920 Series Routers supported from Cisco IOS-XE Release 3.13S release:

- ASR-920-12CZ-A
- ASR-920-12CZ-D
- ASR-920-4SZ-A
- ASR-920-4SZ-D

This release notes provides information about the following variants of the Cisco ASR 920 Series Routers supported from Cisco IOS-XE Release 3.13.1S release:

- ASR-920-10SZ-PD

This release notes provides information about the following variants of the Cisco ASR 920 Series Routers supported from Cisco IOS-XE Release 3.14S release:

- ASR-920-24SZ-IM
- ASR-920-24SZ-M
- ASR-920-24TZ-M

This release notes provides information about the following variants of the Cisco ASR 920 Series Routers supported from Cisco IOS-XE Release 3.16.1aS release:

- ASR-920-12SZ-IM

Cisco ASR 920 Series Routers Overview

The Cisco ASR 920 Series Aggregation Services Routers provide a comprehensive and scalable set of Layer 2 and Layer 3 VPN services in a compact package. They are temperature-hardened, small form factor, with high throughput and low power consumption ideal for mobile backhaul, business services and residential voice, video, and data ("triple-play") applications.

Feature Navigator

You can use Cisco Feature Navigator to find information about feature, platform, and software image support. To access Cisco Feature Navigator, go to http://www.cisco.com/go/cfn. An account on cisco.com is not required.

Documentation Roadmap

To view other documents for the Cisco ASR 920 Router, see the Cisco ASR 920 Router Documentation Roadmap.

Determining the Software Version

You can use the following commands to verify your software version:

- Consolidated Package—**show version**

Supported HoFPGA Versions

The tables below list the HoFPGA version of the software releases.

Table 1-1   HoFPGA Versions for the Cisco ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A, ASR-920-4SZ-D, and ASR-920-10SZ-PD

Cisco IOS XE Release	HoFPGA Version
3.13	0x1000e
3.13.1	0x10010
3.14	0x10010
3.15	0x10010
3.16	0x0001001a
3.16.1	0x0001001a
3.16.2a	0X0001001a
3.16.3a	0X0001001c
3.16.4	0X0001001c
3.17	0x0001001a
3.18	0X0001001c
3.18SP	0x1_001C(w/o NETFLOW, with BFD_SADT) 0x2_0004 (w/o BFD_SADT, withNETFLOW)
3.18.1SP	0X0001001d
3.18.2SP	0X00020029
3.18.3SP	0X0001001d

Table 1-1   *HoFPGA Versions for the Cisco ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A,
ASR-920-4SZ-D, and ASR-920-10SZ-PD*

Cisco IOS XE Release	HoFPGA Version
3.18.4SP	0X00020029
3.18.5SP	0X00020031
3.18.6SP	0X00020031
3.18.7SP	0X00020032
3.18.8aSP	0X00020032
3.18.9SP	0X00030014

Table 1-2   *HoFPGA anf FPGA Versions for the Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, and ASR-920-24TZ-M*

Cisco IOS XE Release	HoFPGA Version	Gigabit Ethernet Interface Module (Phase 1) FPGA	Gigabit Ethernet Interface Module (Phase 2) FPGA	8 T1/E1	16 T1/E1	32 T1/E1
3.14	0x2001B	0.44	69.20	0.54 (0x36)	-	-
3.15	0x2001B	0.44	69.20	0.54 (0x36)	-	-
3.16	0X00020024	0.47	69.22	0.54 (0x36)	-	-
3.16.4	0X00020026	0.47	69.22	0.54 (0x36)	-	-
3.17	0x0001001a	0.47	69.22	0.54 (0x36)	-	-
3.18	0X0001001b	0.47	69.22	0.54 (0x36)	-	-
3.18SP	0x30005 (with BFD_SADT & NETFLOW)	0.47	69.22	0.54 (0x36)	-	-
3.18.1SP	0X00030006	-	-	-	-	-
3.18.2SP	0X00030006	-	-	-	-	-
3.18.3SP	0X00030006	0.49	69.24	-0.54	0.54	-
3.18.4SP	0X0003000a	0.49	69.24	0.54	0.54	0.46
3.18.5SP	0X0003000c	0.49	69.24	0.54	0.54	0.46
3.18.6SP	0X00030016	0.49	69.24	0.54	0.54	0.46
3.18.7SP	0X00030014	0.49	69.24	0.54	0.54	0.46
3.18.8aSP	0X00030015	0.49	69.24	0.54	0.54	0.46
3.18.9SP	0X00030014	0.49	69.24	0.54	0.54	0.46

Table 1-3   *HoFPGA and FPGA Versions for the Cisco ASR–920-12SZ–IM*

Cisco IOS XE Release	HoFPGA Version	Gigabit Ethernet Interface Module (Phase 1) FPGA	Gigabit Ethernet Interface Module (Phase2) FPGA	8 T1/E1	16 T1/E1	32 T1/E1
3.16.1aS	0x0001000c	0.47	69.22	0.54	-	0.46
3.17	0X0001000c	0.47	69.22	0.54	-	0.46
3.18	0X0001000c	0.47	69.22	0.54	-	0.46
3.18SP	0x1_000E (w/o NETFLOW, with BFD_SADT) 0x2_0004 (w/o BFD_SADT, with NETFLOW)	0.47	69.22	0.54	-	0.46
3.18.1SP	0X0001000f	-	-	-	-	-
3.18.2SP	0X0001000f	-	-	-	-	-
3.18.3SP	0X0001000f	0.49	69.24	0.54-	0.54	-
3.18.4SP	0x00010016	0.49	69.24	0.54	0.54	0.46

Cisco IOS XE Release	HoFPGA Version	Gigabit Ethernet Interface Module (Phase 1) FPGA	Gigabit Ethernet Interface Module (Phase2) FPGA	8 T1/E1	16 T1/E1	32 T1/E1
3.18.5SP	0x00030017	0.49	69.24	0.54	0.54	0.46
3.18.6SP	0x00030017	0.49	69.24	0.54	0.54	0.46
3.18.7SP	0X0003001b	0.49	69.24	0.54	0.54	0.46
3.18.8aSP	0X0003001c	0.49	69.24	0.54	0.54	0.46
3.18.9SP	0X0003001b	0.49	69.24	0.54	0.54	0.46

Limitations and Restrictions on the Cisco ASR 920 Series Routers

- The **default interface** command is used to default the parameters under that interface. However, when speed is configured on the interface, the following error is displayed:

  ```
  Speed is configured. Remove speed configuration before enabling auto-negotiation
  ```

- SSFPs are not supported on the Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M, and ASR–920-12SZ–IM Aggregation Services Routers.

- Adding or deleting the Trunk Ethernet flow points (TEFPs) with scaled bridge-domain, without delay causes the Cisco ASR920 Series router to crash. This issue occurs in Cisco IOS XE Release 3.1.3.0S and later.

- In the case of power loss on the Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M Aggregation Services Routers running Cisco IOS-XE Release 3.14.0S and the Cisco ASR-920-12SZ-IM running the Cisco IOS-XE Release 3.16.1aS, dying gasp packets are sent to peer routers. However, the system state is not captured in the system logs (syslogs) or SNMP traps.

- Interface naming of the Cisco ASR-920-12SZ-IM is from right to left. For more information, see the Cisco ASR 920 Series Aggregation Services Router Chassis Configuration Guide.

- Virtual services should be deactivated and uninstalled before performing replace operations.

- Effective Cisco IOS-XE Release 3.18S, packet size greater than 1460 is not supported over IPsec Tunnel for ASR-920-12SZ-IM.

- For ASR-920-12SZ-IM, minimal traffic drop might be seen for a moment when higher rate traffic is sent through the IPsec tunnels for the first time.

- Effective Cisco IOS-XE Release 3.18S, IPsec is only supported for TCP and UDP and is not supported for SCTP for ASR-920-12SZ-IM.

Field Notices and Bulletins

- Field Notices—We recommend that you view the field notices for this release to determine whether your software or hardware platforms are affected. You can find field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.

- Bulletins—You can find bulletins at http://www.cisco.com/en/US/products/sw/iosswrel/ps5012/prod_literature.html.

MIB Support

To view supported MIB, go to http://tools.cisco.com/ITDIT/MIBS/MainServlet.

Accessibility Features in the Cisco ASR 920 Series Routers

For a list of accessibility features in Cisco ASR 920 Series Routers, see the *Voluntary Product Accessibility Template (VPAT)* on the Cisco website, or contact accessibility@cisco.com.

All product documents are accessible except for images, graphics, and some charts. If you would like to receive the product documentation in audio format, braille, or large print, contact accessibility@cisco.com.

End-of-Life and End-of-Sale Notices

For End-of-Life and End-of-Sale Notices for the Cisco ASR 920 Series Routers, see http://www.cisco.com/c/en/us/products/routers/asr-920-series-aggregation-services-router/eos-eol-notice-listing.html.

Additional References

Product Information

- Cisco ASR 920 Series Aggregation Services Router Data Sheets

Hardware Installation Guide

- Cisco ASR 920 Series Aggregation Services Hardware Installation Guide (ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A, ASR-920-4SZ-D)
- Cisco ASR 920-10SZ-PD Aggregation Services Router Hardware Installation Guide
- Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M Aggregation Services Router Hardware Installation Guide
- Cisco ASR-920-12SZ-IM Aggregation Services Router Hardware Installation Guide

Software Configuration Guides

All configuration guides are available at Cisco ASR 920 Series Aggregation Services Router Configuration Guides.

Regulatory Compliance and Safety Information

Regulatory Compliance and Safety Information—Regulatory Compliance and Safety Information for the Cisco ASR 920 Series Aggregation Services Routers

New Features for Cisco ASR 920 Series Routers

This chapter describes the new features supported on the Cisco ASR 920 Series Router for a specified release.

Content

New Hardware Features in Cisco IOS XE 3.18.9SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.9SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.8aSP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.8aSP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.7SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.7SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.6SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.6SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.5SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.5SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.4SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.4SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.3SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.3SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.2SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.2SP

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.1SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.1SP

- **FlexLSP Inter-area support on non-corouted mode**

  Flex LSP supports inter-area tunnels with non co-routed mode.

  For more information on the restrictions for this feature and its configuration details, see *Flex LSP Overview*

- **Leap Second**

  In this release, you can configure the leap second event date and Offset value (+1 or -1) on master ordinary clock, hybrid boundary clock, dynamic ports, and virtual ports.

  The following two new keywords are added to the **utc-offset** command:

  - **leap second**
  - **offset**

  For more information, see *Configuring Clocking and Timing* and *G.8275.1 Telecom Profile*

- **Support for OC3/OC12 Smart SFP**

  The OC3/OC12 Smart SFP supporting CEP (VCoP Smart SFP) is a special type of optical transceiver which encapsulates SONET bit stream at STS1 or STS-3c or STS-12c level into packet format. The VCoP Smart SFP forwards the SONET signal in a transparent manner.

  For more information, see *Configuring VCoP Smart SFP*

- **Time Properties Holdover Time**

  In this release, you can configure time properties holdover time on boundary clock, hybrid boundary clock, and dynamic ports.

  The following new command is introduced:

  time-properties persist

  For more information, see *Configuring Clocking and Timing* and *G.8275.1 Telecom Profile*

New Hardware Features in Cisco IOS XE 3.18.3S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.3S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18.2S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.2S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18 SP

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18 SP

- **Flex LSP**

  Cisco ASR 920 Series Routers support Flex Label Switched Paths (Flex LSPs).

  Flex LSPs are LSP instances where the forward and the reverse direction paths are setup, monitored and protected independently and associated together during signaling. You use a RSVP Association object to bind the two forward and reverse LSPs together to form either a co-routed or non co-routed associated bidirectional TE tunnel.

  For more information, see *Flex LSP Overview*

- **FLEX LSP Layer 2 VPN PW CAC with persistent bandwidth**

  When you add the persistent keyword to the bandwidth number command, the pseudowire's bandwidth is recovered and is available when the VC is in down state.

  There are two ways to configure the persistent bandwidth, you can either configure through template, or under the interface pseudowire directly. If an interface pseudowire is configured with both template and the direct configuration, the direct configuration will overwrite the bandwidth configured through template.

  For more information, see *Configuring Bandwidth of the Pseudowire with Persistent keyword*.

- **Netflow with EFP Support**

  Netflow is supported on ASR 920 router. NetFlow provides data to enable network and security monitoring, network planning, traffic analysis, and IP accounting.

  The following features are supported for Netflow:

  - Netflow—IPv4 and IPv6 unicast flows
  - Netflow Export over IPv4 and IPv6 addresses

Netflow support is made available through a separate FPGA Image. This is applicable for ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A, ASR-920-4SZ-D, and ASR-920-12SZ-IM routers.

To configure netflow and issue Netflow commands, select the template

– For Cisco ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A, ASR-920-4SZ-D, ASR-920-12SZ-IM routers—**sdm prefer netflow-video** This sets the template to video, and also allows configuration of netflow monitoring options by upgrading the router with the netflow supported FPGA.

– For Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M routers—**sdm prefer video**.

The **sdm prefer netflow-video** command is introduced on the ASR 920 router. The **netflow-video** keyword is added. This keyword is introduced on the Cisco ASR 920 router (ASR-920-12CZ-A, ASR-920-12CZ-D, ASR-920-4SZ-A, ASR-920-4SZ-D, and ASR-920-12SZ-IM).

For more information, see *Flexible Netflow Configuration Guide (Cisco ASR 920 Series)*

- **PTP Interoperability Improvements**

  – Set Threshold Clock-class Value

  This release introduces the support to set the threshold clock-class value. This allows the PTP algorithm to use the time stamps from an upstream master clock, only if the clock-class sent by the master clock is less than or equal to the configured threshold clock-class. The following new command is introduced:

  min-clock-class

  For more information, see *Configuring a Hybrid Clock*.

  – Set Threshold QL Value for NetSync Algorithm

  This release introduces the support to set the threshold QL value for the input frequency source. The input frequency source, which is better than or equal to the configured threshold QL value is selected to recover the frequency. Otherwise, the internal clock is selected. The following new command is introduced:

  network-clock synchronization input-threshold

  For more information, see *Configuring a Hybrid Boundary Clock*.

  – Set UTC Offset Value

  This release introduces the support to set the UTC Offset value. The following new command is introduced:

  utc-offset

  For more information, see *Configuring a Master Ordinary Clock*.

- **Support for G.8273.2 Telecom Recommendation**

  Cisco ASR 920 Series Aggregation Services Routers (Cisco ASR-920-12CZ-A/D, ASR-920-4SZ-A/D, Cisco ASR 920-10SZ-PD and Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M) support the G.8273.2 telecom recommendation.

  For more information, see *G.8275.1 Telecom Profile*

- **TWAMP Responder on IP VRF Interface**

  Cisco ASR 920 routers support TWAMP responder on IP VRF interfaces.

The IETF Two-Way Active Measurement Protocol (TWAMP) defines a standard for measuring round-trip network performance between any two devices that support the TWAMP protocols. The TWAMP-Control protocol is used to set up performance measurement sessions. The TWAMP-Test protocol is used to send and receive performance-measurement probes.

For more information, see IP SLAs Configuration Guide (Cisco ASR 920 Series).

New Hardware Features in Cisco IOS XE 3.18.1S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18.1S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.18S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.18S

- **Asymmetric Rewrite Rules**

  Effective Cisco IOS-XE Release 3.18S, this feature introduces new rewrite rules for the egress direction in the EFP. You can configure asymmetric rewrite rules in both ingress and egress directions of the EFP.

  For more information about asymmetric rewrite rules, see *Ethernet Virtual Connections Configuration*.

- **BGP PIC Support for TDM Pseudowires**

  Starting Cisco IOS XE Release 3.18S, BGP PIC is supported for all pseudowires on the Cisco ASR 900 RSP2 module.

  Starting Cisco IOS XE Release 3.18S, BGP PIC is supported with MPLS Traffic-engineering in the core on the Cisco ASR 900 RSP1 and RSP2 modules.

  For information, see *Configuring Pseudowires*.

- **CEMoUDP for 32 T1/E1**

  Effective Cisco IOS-XE Release 3.18S, CEMoUDP is supported on 32 T1/E1 interface module.

  For more information, see *Circuit Emulation Service over UDP*.

- **Clear Channel ATM (on OC-3 / STM1)**

  Effective Cisco IOS-XE Release 3.18S, Clear Channel ATM on OC-3 or STM1 is supported on Cisco ASR-920-24SZ-IM and Cisco ASR-920-12SZ-IM Aggregation Services Router.

  For more information, see *Configuring ATM*.

- **Delay and Jitter Support**

  Effective Cisco IOS-XE Release 3.18S, the delay and jitter are supported in service performance test.

  For more information, see *IP SLA - Service Performance Testing*.

- **EtherChannel Min-Links**

  The EtherChannel Min-Links feature is supported on LACP EtherChannels. This feature allows you to configure the minimum number of member ports that must be in the link-up state and bundled in the EtherChannel for the port channel interface to transition to the link-up state.

  For more information, see *Configuring IEEE 802.3ad Link Bundling*.

- **Ethernet Local Connect**

  Effective Cisco IOS-XE Release 3.18S, you can connect two end points (service instances) using the Local connect (Layer 2 point to point service), which is a point to point connection.

  For more information about EVC Local Connect, see *Ethernet Virtual Connections Configuration*.

- **Ethernet Loopback with Other Types of Encapsulation**

  Effective Cisco IOS-XE Release 3.18S, Ethernet loopback for default and untagged EFPS is available.

  For more information about Ethernet Loopback, see *Configuring Ethernet Dataplane Loopback*.

- **EVPN VPWS Single Homed**

  Effective Cisco IOS-XE Release 3.18S, this feature is a BGP control plane solution for point-to-point services. It has the ability to forward traffic from or to one network to another using the Ethernet Segment without MAC lookup.

  For more information about Ethernet Loopback, see *EPVN Virtual Private Wire Service (VPWS) Single Homed*.

- **Flexi License**

  This feature enables the flexi license on Cisco ASR 920 Series Routers beginning with Cisco IOS-XE Release 3.18S. For more information, see *Flexi License*.

- **IPSec**

  Starting with Cisco IOS-XE Release 3.18S, IPsec tunnel is supported only on the Cisco ASR920-12SZ-IM router with payload encryption (PE) images.

  Note IPsec license must be acquired and installed on the router for IPsec to work.

  Note NPE images shipped for Cisco ASR 920 routers do not support data plane encryptions. However, control plane encryption is supported with NPE images, with processing done in software, without the crypto engine.

  The following features are supported for IPsec:

  – Internet Key Exchange (IKE) for IPsec
  – IKEv1 and IKEv2 Transform sets

- IPSec Virtual Tunnel Interfaces
- Encrypted Preshared Key
- IPSec Dead Peer Detection
- IPsec Anti-replay Window
- Public Key Infrastructure (PKI) support for IPSec

For more information, see *IPsec Configuration Guide, (Cisco ASR 920 Series)*.

Starting with Cisco IOS-XE Release 3.18S, Public Key Infrastructure (PKI) is supported on the ASR920-12SZ-IM router.

The following features are supported for PKI:

- Deploying RSA Keys for PKI
- Authorization and Enrollment of Certificates
- CRL Support for PKI
- Certificate Enrollment for PKI
- OCSP

For information on understanding and configuring PKI, see *Public Key Infrastructure Configuration Guide*.

- **LACP 1:1 Fast Switchover Support**

  The LACP 1:1 redundancy feature provides an EtherChannel configuration with one active link and fast switchover to a hot standby link.

  For this feature, the LACP EtherChannel must contain exactly two links, of which only one is active.

  For more information, see *Configuring IEEE 802.3ad Link Bundling*.

- **Larger String for EVC VLAN Encapsulation**

  Effective Cisco IOS-XE Release 3.18S, you can add or remove one or more VLAN tag values for matching criteria. You can use the **encapsulation dot1q add** command with **show run** command when the encapsulation configuration command is more than the terminal width and **Ethernet service multi-line** command is configured or if the encapsulation command is more than 255 characters.

  For more information about Larger string for VLAN encapsulation, see *Ethernet Virtual Connections Configuration*.

- **Layer 3 ATM**

  This feature enables the Asynchronous Transfer Mode Adaptation Layer 5 (AAL5) layer 3 termination on the interface module (IM) (T1/E1 and OC-3) cards on the Cisco ASR 920 Router. For more information, see *Configuring AAL5 L3 Termination*.

- **mLDP IPv6**

  The MLDPv6 based MVPN configuration enables IPv6 multicast packet delivery using MPLS. This feature enables the configuration of MLDPv6 based MVPN. For more information, see *MLDP-Based MVPN*.

- **Phase Profile G8275.1**

With upcoming technologies like LTE-TDD, LTE-A CoMP, LTE-MBSFN and Location-based services, eNodeBs (base station devices) are required to be accurately synchronized in time and phase. Having GNSS systems at each node is not only expensive, but also introduces vulnerabilities.

Effective Cisco IOS-XE Release 3.18S, Cisco ASR 920 Series Aggregation Services Routers (Cisco ASR-920-12CZ-A/D, ASR-920-4SZ-A/D, Cisco ASR 920-10SZ-PD and Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M) support the G.8275.1 telecom profile. This profile targets accurate time and phase distribution and requires boundary clocks at every node in the network

For more information, see *G.8275.1 Telecom Profile*.

- **Point-to-point Protocol over Ethernet Intermediate Agent**

Point-to-point protocol over Ethernet Intermediate Agent (PPPoE IA) is supported from Cisco IOS-XE Release 3.18S.

PPPoE IA helps the service provider Broadband Remote Access Server (BRAS) to distinguish between end hosts connected over Ethernet to an access switch.

For more information about Point-to-point protocol over Ethernet Intermediate Agent, see *PPPoE Intermediate Agent*.

- **STM-4 TSoP**

Effective Cisco IOS-XE Release 3.18S, STM-4 TSoP is supported on ASR 920 routers.

STM-4 TSoP is compatible with the below SFPs supported on the OC-12 interface module:

  - ONS-SI-622-L2—For 40km cable length, use 2 dB attenuator; short distance use 10 dB attenuator to avoid receiver overload.

  - ONS-SI-622-L1—For 40km cable length, no attenuator; short distance use 10 dB attenuator to avoid receiver overload.

  - ONS-SI-622-I1—For 15km cable length, use 2 dB attenuator; short distance use 8 dB attenuator to avoid receiver overload.

For more information, see *Transparent SONET or SDH over Packet (TSoP) Protocol*.

- **Synthetic Frame Loss Measurement (ETH-SLM)**

Effective Cisco IOS-XE Release 3.18S, SLM is not supported with TEFP in access mode.

For more information, see *Configuring an SLM*.

- **Y.1731 Performance Monitoring**

Effective Cisco IOS-XE Release 3.18S, the Y.1731 Performance Monitoring feature has the following updates:

  - Is not supported on MEPs that are configured on TEFP and Port MEPs.

  - Uses ASIC-based time-stamping.

  - Supports the **rewrite** command. However, for the command to be successful, the Y.1731 PDUs should not be transmitted untagged.

For more information, see *ITU-T Y.1731 Performance Monitoring in a Service Provider Network*.

New Hardware Features in Cisco IOS XE 3.17.2S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.17.2S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.17.1S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.17.1S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.17S

- **GPS Support**

  Effective Cisco IOS-XE Release 3.17, the Cisco ASR-920-12SZ-IM router uses a satellite receiver, also called the global navigation satellite system (GNSS), as a new timing interface. With the GNSS available on the router itself, the access networks can now directly estimate time measurements and clock errors from the satellites. In other words, the Cisco ASR-920-12SZ-IM can now act as a grandmaster clock.

  For more information, see *Cisco ASR 920 Series Aggregation Services Router Configuration Guide*.

New Software Features in Cisco IOS XE 3.17S

- **VLAN Scale with Convergence**

  The convergence value is improved from Cisco IOS XE 3.17 release.

  For more information, see *LAN Switching Configuration Guide (Cisco ASR 920 Series)*.

- **Layer 3 Access Control Lists on EVCs**

  Access Control Lists (ACLs) provide the capability to filter packets at a fine granularity. In Metro Ethernet networks, ACLs are directly applied on Ethernet virtual circuits (EVCs). Earlier, the layer 3 ACLs were only supported on the routed ports (physical ports or BDIs). Effective Cisco IOS-XE Release 3.17, the support of layer 3 ACLs on EVCs provides the capability to filter the layer 3 packets on layer 2 bridges that support Ethernet services.

  For more information, see *MPLS: Layer 3 VPNs Configuration Guide*.

- **VLAN Translation with QoS**

  Effective Cisco IOS-XE Release 3.17, VLAN translation provides flexibility in managing VLANs and Metro Ethernet-related services. The current implementation of the feature allows one or more 802.1Q tags to be replaced with other 802.1Q tags and thus the desired tag manipulation can be achieved. In a scenario with two EFPs egressing the same interface, each EFP can have a different VLAN rewrite operation, which is more flexible.

For more information, see *Carrier Ethernet Configuration Guide*.

- ## Transparent CFM on C-VLAN

Transparent CFM is a mechanism to provide transparency on CFM frames between customer ends. Transparency helps the service provider network to pass the entire maintenance levels (0-7) of CFM frames from one customer end to another customer end by UP MEP that is configured on UNI-N port at any level.

For more information, see *Carrier Ethernet Configuration Guide*.

- ## Ethernet Fault Detection

Ethernet Fault Detection (EFD) is a mechanism that allows Ethernet OAM protocols, such as CFM, to control the "line protocol" state of an interface. Unlike many other interface types, Ethernet interfaces do not have a line protocol, whose state is independent from that of the interface. For Ethernet interfaces, this role is handled by the physical-layer Ethernet protocol itself, and therefore if the interface is physically up, then it is available and traffic can flow.

EFD changes this to allow CFM to act as the line protocol for Ethernet interfaces. This allows CFM to control the interface state so that if a CFM defect (such as AIS or loss of continuity) is detected with an expected peer MEP, the interface can be shut down. This not only stops any traffic flowing, but also triggers actions in any higher-level protocols to route around the problem.

For more information, see *Carrier Ethernet Configuration Guide*.

- ## Configuring Multicast VPN

The Multicast VPN (MVPN) feature provides the ability to support multicast over a Layer 3 VPN. IP multicast is used to stream video, voice, and data to an MPLS VPN network core.

For more information, see *IP Multicast: PIM Configuration Guide (Cisco ASR 920 Series)*.

- ## Multicast VPN Extranet Support

The Multicast VPN Extranet Support feature enables service providers to distribute IP multicast content originated from one enterprise site to other enterprise sites.

This feature enables service providers to offer the next generation of flexible extranet services, helping to enable business partnerships between different enterprise VPN customers.

For more information, see *IP Multicast: PIM Configuration Guide (Cisco ASR 920 Series)*.

- ## SLM/DMM over VPLS

Synthetic loss measurement (SLM) and Delay Measurement Message (DMM) are part of the ITU-T Y.1731 standard. SLM is used to periodically measure Frame Loss and Forward Loss Ratio (FLR) between a pair of point to point MEPs. DMM is used to periodically measure Frame Delay and Frame Delay Variation between a pair of point to point MEPs.This feature enables the configuration of SLM/DMM over VPLS.

For more information, see *IP SLAs Configuration Guide*.

- ## ATM/IMA

In Inverse Multiplexing over ATM (IMA), the originating stream of ATM cells is divided so that complete ATM cells are transmitted in round-robin order across the set of ATM links.

For more information, see *Asynchronous Transfer Mode Configuration Guide, Cisco IOS XE Release 3S (Cisco ASR 920 Series)*.

- ## MPLS TE over BDI

Effective Cisco IOS-XE Release 3.17, the Cisco ASR-920-12SZ-IM router provides the option for enabling the MPLS TE tunnels over Bridge Domain Interfaces.

For more information, see *MPLS Basic Configuration Guide (Cisco ASR 920 Series)*.

New Hardware Features in Cisco IOS XE 3.16.10S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.10S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.9S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.9S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.8S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.8S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.7S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.7S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.6S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.6S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.5S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.5S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.4S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.4S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.3aS

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.3aS

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.2aS

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16.2aS

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16.1aS

The Cisco ASR-920-12SZ-IM Aggregation Services Router was introduced in this release.

New Software Features in Cisco IOS XE 3.16.1aS

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.16S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.16S

- **Access Switch Device Manager Template**

  The Switch Device Manager (SDM) templates are used to optimize system resources in the router to support specific features, depending on how the router is used in the network. The SDM templates allocate Ternary Content Addressable Memory (TCAM) resources to support different features.

Note   SDM templates are supported only by the Metro Aggregation Services license.

  For more information, see *SDM Template Configuration Guide, Cisco IOS XE Release (Cisco ASR 920 Series)*.

- **Circuit Emulation over UDP**

  Circuit Emulation Service over Packet-Switched Network (CESoPSN) and Structure-agnostic TDM over Packet (SAToP) are supported as a part of Circuit Emulation Service over UDP (CEMoUDP).

  The feature is supported on 8T1/E1 interface module, 16T1/E1 interface module, and OC3 interface module on the router.

Note   8T1/E1, 16 T1/E1, and OC3 are supported only on the Cisco ASR-920-24SZ-IM and ASR-920-12SZ-IM Aggregation Services Router.

  Circuit Emulation Service over UDP is not supported for 32 T1/E1 interface module (A900-IMA32D).

  For more information, see *MPLS Basic Configuration Guide (Cisco ASR 920 Series).*

- **ECMP Load Balancing**

Starting with Cisco Release 3.16, a maximum of 8 Equal-cost multi-path routing (ECMP) paths are supported.

For more information, see *MPLS: Layer 3 VPNs Configuration Guide (Cisco ASR 920 Series).*

- **IGMP Snooping**

  This feature is only supported on the EFP, Trunk EFPs, port-channel EFP, and port-channel Trunk EFPs. The feature is not supported on pseudowires.

  IGMP snooping is supported on Metro IP and Metro Aggregate licenses on the Cisco ASR 920 Series Routers. It is supported with MSTP, REP, G.8032, and on the port-channel interfaces.

  For more information, see *IP Multicast: PIM Configuration Guide (Cisco ASR 920 Series)*.

- **IP SLA - Service Performance Testing**

  This feature, Y.1564, is an Ethernet service activation test methodology, and is the standard for turning up, installing, and troubleshooting Ethernet and IP based services. Y.1564 is the only standard test methodology that allows a complete validation of Ethernet service-level agreements (SLAs) in a single test. Service performance testing is designed to measure the ability of a Device Under Test (DUT) or a network under test to properly forward traffic in different states.

  For more information, see *IP SLAs Configuration Guide (Cisco ASR 920 Series)*.

- **Microwave ACM Extensions**

  Starting with Cisco Release 3.16, adaptive bandwidth with multi-hop extensions are supported. Multi-hop extensions help identify the degraded links in the topology.

  The following command is modified: **event ethernet microwave sd interface**.

  For more information, see *Carrier Ethernet Configuration Guide (Cisco ASR 920 Series)*.

- **Policy-Based Routing**

  This feature provides a way for a device to put packets through a route map before routing them.

  The route map determines which packets are routed to which device. You might enable policy-based routing (PBR) if you want some packets to be routed a way other than the obvious shortest path. PBR provides control over routing by extending and complementing the existing mechanisms provided by routing protocols. Possible applications for PBR are to provide equal access, protocol-sensitive routing, source-sensitive routing, routing based on interactive versus batch traffic, and routing based on dedicated links.

  For more information, see *IP Routing: Protocol-Independent Configuration Guide, Cisco IOS XE Release 3S (Cisco ASR 920 Series).*

- **Power Over Ethernet**

  Effective Cisco IOS XE Release 3.16S, the Cisco ASR-920-12SZ-IM Aggregation Services Router supports Power over Ethernet (PoE). PoE is the ability for any LAN switching infrastructure to provide power over a copper Ethernet cable to an endpoint or powered device.

  For more information, see *Cisco ASR 920 Series Aggregation Services Router Configuration Guide.*

- **Priority Shaper**

  This feature helps to prioritize the packets when multiple steams egress out of an interface. Priority Shaper can be applied or supported only on egress QoS policy.

  For more information, see *QoS: Policing and Shaping Configuration Guide (Cisco ASR 920 Series)*.

- **Pseudowire Group Status Generation**

  This release introduces support for pseudowire group status generation.

The Pseudowire Group Message Generation feature assigns pseudowire group id for a group of pseudowires and sends wildcard status notifications or label withdrawal messages for a group.

For more information, see *Time Division Multiplexing Configuration Guide, Cisco IOS XE Release 3S (Cisco ASR 920 Series).*

- **Segment Routing (IS-IS)**

The Segment Routing—ISIS v4 node SID feature provides support for segment routing on IS-IS networks.

For more information, see *IP Routing: Protocol-Independent Configuration Guide, Cisco IOS XE Release 3S (Cisco ASR 920 Series).*

- **uRPF for IPv6 (Strict and Loose mode)**

Unicast Reverse Path Forwarding for IPv6 feature mitigates the problems caused by malformed or forged IPv6 source addresses that pass through an IPv6 device. Malformed or forged source addresses can indicate denial-of-service (DoS) attacks based on source IPv6 address spoofing.

For more information, see *IPv6 Addressing and Basic Connectivity Configuration Guide, Cisco IOS XE Release 3S (Cisco ASR 920 Series).*

New Hardware Features in Cisco IOS XE 3.15.1S

There are no new hardware features in this release.

New Software Features in Cisco IOS XE 3.15.1S

There are no new software features in this release.

New Hardware Features in Cisco IOS XE 3.15S

The Cisco 8x1G + 10x1G IM was introduced in this release for Cisco ASR-920-24SZ-IM Aggregation Services Router.

New Software Features in Cisco IOS XE 3.15S

Table 2-1　　　*Supported Features*

Cisco IOS-XE Release	Supported Features
3.15.0S	• 32 T1/E1 Support for MLP and Serial • BGP PIC Edge/Core IPv6/VPNv6 • Configurable Ether Type • DHCP Server v6 • Dying Gasp • EVC Priority Propagation • EVC Push with full CoS • Hierarchal color aware policer • Hybrid BMCA • IPV6 DHCP client • mLACP • Multicast with mLDP • PMIPv6 Protocol on USB Modem Interface • Point-to-Multipoint Traffic Engineering • PPPoE support • Precision Time Protocol (PTP) version 4 Timing Clock • Redundancy for hop-by-hop accuracy • Routed pseudowire and VPLS • TDM • VRRPv3 High Scale

New Hardware Features in Cisco IOS XE 3.14S

- The Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, and ASR-920-24TZ-M Routers were introduced in this release

- BX optics

- CWDM SFP+
  For more information, see the *Cisco ASR 900 Series Aggregation Services Router Interface Modules Data Sheet* at
  http://www.cisco.com/c/en/us/products/routers/asr-903-series-aggregation-services-routers/datasheet-listing.html

- 8 Port T1/E1 Interface Module (A900-IMA8D) - supported only on Cisco ASR-920-24SZ-IM

New Software Features in Cisco IOS XE 3.14S

Note   Effective Cisco IOS-XE Release 3.14S, the Cisco ASR 920 Series Routers can act as controller for the Cisco ME 1200 NID. For more information on how to configure the NID, see *http://www.cisco.com/c/en/us/td/docs/switches/metro/me1200/controller/guide/b_nid_controller_book.html.*

Table 2-2   Supported Features

Cisco IOS XE Release	Supported Features
3.14S	**Note** Only Cisco ASR920-24SZ-IM supports IM and associated features. • Circuit Emulation Service over Packet Switched Network (CESoPSN) (ASR920-24SZ-IM) • Structure-Agnostic TDM over Packet (SAToP) (ASR920-24SZ-IM) • Circuit Emulation (CEM) (ASR920-24SZ-IM) • 12/1G Bundle (ASR920-24SZ-IM, ASR920-24SZ-M, ASR920-24-TZ-M) • 1588 BC over MPLS • ACL- Access Control List Source and Destination Address Matching • Auto-IP • Autonomic Networking • BGP Support for TCP Path MTU Discovery per Session • CFM-802.1ad • Control Plane Security • DHCP - DHCPv6 Relay Agent notification for Prefix Delegation • DHCPv6 - Relay chaining for Prefix Delegation • E2E Transparent Clocking • EFP Policer without Ingress TCAM • E-OAM: Multi UNI MEP in the same VPN • Ethernet Data Plane Loopback • IGMP Snooping • IGMP State Limit • IPv6 QoS ACL • IPv6 SDM Template • IPv6 Services: Extended Access Control Lists

Table 2-2   Supported Features (continued)

Cisco IOS XE Release	Supported Features
3.14S	• ITU-T Telecom Profile G.8265.1 • Multicast Source Discovery Protocol (MSDP) • Multi NNI CFM • onePK (AAA, AppRouting, RIB and Infra)
3.14S	• PIMV6/MLD • PTP over Native Ethernet • Remote SPAN (RSPAN) • Source Specific Multicast (SSM) • SSM Mapping • Static MAC binding to EVCs and Psuedowires • Table map • TCAM Threshold • Time of Day Selection • VRRP and LLDP MED support for ZTP • VRRPv3 • ZTP

New Hardware Features in Cisco IOS XE 3.13.9S

There are no new hardware features introduced in this release.

New Software Features in Cisco IOS XE 3.13.9S

There are no new software features introduced in this release.

New Hardware Features in Cisco IOS XE 3.13.7S

There are no new hardware features introduced in this release.

New Software Features in Cisco IOS XE 3.13.7S

There are no new software features introduced in this release.

New Hardware Features in Cisco IOS XE 3.13.4S

There are no new hardware features introduced in this release.

New Software Features in Cisco IOS XE 3.13.4S

There are no new software features introduced in this release.

New Hardware Features in Cisco IOS XE 3.13.2S

There are no new hardware features introduced in this release.

New Software Features in Cisco IOS XE 3.13.2S

There are no new software features introduced in this release.

New Hardware Features in Cisco IOS XE 3.13.00zS

- The Cisco ASR-920-10SZ-PD was introduced in this release.

New Software Features in Cisco IOS XE 3.13.00zS

There are no new software features introduced in this release.

New Hardware Features in Cisco IOS XE 3.13S

- The Cisco ASR 920 Series Router was introduced in this release.
- Supported SFPs for this release are documented in the *Cisco ASR 920 Series Router Hardware Installation Guide*.

New Software Features in Cisco IOS XE 3.13S

The following table lists the other features supported on Cisco ASR 920 Series Router in Cisco IOS XE Release 3.13S:.

Table 2-3   *Supported Features*

Cisco IOS XE Release	Supported Features
3.13S	10G/1G Dual Rate 1588 BC over MPLS 1588-2008 Boundary Clock 6PE support 802.1ad 802.1ag-2007 compliant CFM (D8.1) on EFP with xconnect 802.3ad (LACP) - ACL - Access Control List Source and Destination Address Matching - ACL - DSCP Matching - ACL - ICMP-code (0-255) or code name - ACL - IP Protocol - ACL - IPv4 Protocol Match - ACL - Source and Destination Address Matching - ACL- DSCP Matching - Any Transport over MPLS: Ethernet over MPLS (EoMPLS) - E-OAM: Synthetic Frame Loss Measurement (ETH-SLM) - Auto-MDIX - AutoInstall Using DHCP for LAN Interfaces - BFD - BFD Hardware Offload Support - BFD Deterministic Hardware Offload - BFD Hardware Offload Support - BFD IPv6 Encapsulation Support - BFD Support for HSRP - BFD: BGP multihop client Support and cBit (IPv4/IPv6) - BGP - Accumulated IGP - BGP - MP-iBGP NSR - BGP - RTC for legacy PE - BGP - VPLS BGP Signaling - BGP GSHUT enhancement - BGP Monitoring Protocol - BGP PIC (edge and core) - for RFC-3107 labeled iBGP - BGP PIC Edge for IP/MPLS - BGP Support for 4-byte ASN - BGP Support for TCP Path MTU Discovery per Session

Table 2-3   Supported Features (continued)

Cisco IOS XE Release	Supported Features
3.13S	• BGP: Graceful Shutdown (GSHUT)
	• Broadcast/Multicast Suppression / Storm-control
	• Call Home
	• CDP (Cisco Discovery Protocol) Version 2
	• CFM
	• CFM (802.1ag D1.0) on UEA
	• CFM 1+1 HSBY Extension
	• CFM Support with integrated OAM HW offload
	• Cisco Secure Licensing
	• Cisco-BGP-MIBv2
	• CISL – SNMP Support
	• Class Based Weighted Fair Queuing (CBWFQ)
	• Class-based QoS MIB
	• Configurable Per VLAN MAC Learning (PVL)
	• CSL Support /UEA platform
	• CWDM SFP Support
	• DAI (Dynamic ARP Inspection)
	• DHCP - DHCPv6 Relay Agent notification for Prefix Delegation
	• DHCP Option 82 Configurable Circuit ID and Remote ID
	• DHCP Snooping
	• DHCPv6 - Relay chaining (for Prefix Delegation) and route insertion in FIB
	• Diffserv Compliant WRED
	• DWDM XFP support
	• Dying Gasp
	• Dynamic ARP Inspection
	• Dynamic VPLS over MPLS-TP
	• E-OAM - CFM CCM Hardware Offload (802.1ag within ms accuracy) (Xconnect and BD Up MEP)
	• Egress Policing and Marking Support
	• Egress QoS policies on main physical interface for port shaping + H-policies on EFP

Table 2-3 *Supported Features (continued)*

Cisco IOS XE Release	Supported Features
3.13S	• Egress QoS policies on Main Physical Interface for port-shaping + class-based policy
	• Embedded Event Manager (EEM) 4.0
	• Enhanced Ingress Hierarchical Policing on Engine 5
	• Etherchannel Min-Links
	• Ethernet Connectivity Fault Management (E-CFM)
	• Ethernet Local Management Interface (LMI) at Provider Edge (PE)
	• Ethernet Operations, Administration, and Maintenance (OAM)
	• EVC 2.0 - Advanced VLAN translations and service mapping based on 802.1ah (4500)
	• EVC 2.0 - MAC address limiting per EVC for K5-Metro
	• EVC and BD MIB support for trunk EFP
	• EVC Default Encapsulation for QinQ and xconnect
	• Extended LFA support
	• FCS: Trunk EFP support
	• FHRP - Enhanced Tracking
	• Flexlink
	• FP initialization fails with QoS policies and with huge range of BD on TEFP
	• FPD Image Upgrade Software
	• G.8032
	• G.8032 (3.3 ms CCM)
	• H-VPLS N-PE Redundancy for MPLS Access
	• H-VPLS Support
	• HSRP
	• HSRP Support
	• Hybrid Clocking Support
	• IEEE 1588-2008
	• IEEE 802.1ab LLDP (Link Layer Discovery Protocol)
	• IEEE 802.1ag (CFM) Support on Port-Channel Interface
	• IEEE 802.1p Support
	• IEEE 802.1Q VLAN Support
	• IEEE 802.3ad Link Aggregation (LACP)
	• IEEE 802.3ah Ethernet Link Layer OAM
	• IEEE 802.3x Flow Control
	• Interfaces MIB: SNMP context based access

Table 2-3   Supported Features (continued)

Cisco IOS XE Release	Supported Features
3.13S	• IOS ISIS - uLoop local avoidance
	• IOS OSPF - Autoroute announce and forwarding adjacencies for OSPFv3
	• IP 16-way Equal-Cost Multipath
	• IP FRR (IPv4 Loop Free Alternate Fast ReRoute)
	• IP FRR over BDI
	• IP FRR/Remote LFA FRR with L2VPN
	• IP SLAs TWAMP Responder v1.0
	• IPSLA Y1731 SLM Feature Enhancements
	• IPv4 Loop Free Alternate Fast ReRoute
	• IPv4 Unicast Routing Support
	• IPv6 ACL
	• IPv6 ACLs Support
	• IPv6 QoS: MQC Packet Classification
	• IPv6 Routing: IS-IS Support for IPv6
	• IPv6 Routing: OSPF for IPv6 (OSPFv3)
	• IPv6 Routing: Static Routing
	• IPv6 Routing: Unicast Routing
	• IPv6 Switching: CEF/dCEF Support
	• IPv6 Switching: Provider Edge Router over MPLS (6PE)
	• IPv6 VPN over MPLS (6VPE)
	• IS-IS - MPLS LDP Autoconfiguration
	• IS-IS Support for BFD over IPv6
	• ISIS - BFD Support for IPv4
	• ITU-T G.8032 Ethernet Ring Protection Switching
	• Jumbo Frames
	• Kerberos V Client Support
	• L2 ACL on EVC
	• L2 ACL on Service Instance on Port-channel
	• L2PT - Layer 2 Protocol Tunneling
	• L2PT on Trunk EFP
	• L2VPN Componentization
	• L2VPN Protocol CLI Phase 2 (L2TPv3, mLACP)
	• L2VPN Protocol-based CLI
	• L2VPN support for MPLS Transport Profile (MPLS-TP)

Table 2-3   *Supported Features (continued)*

Cisco IOS XE Release	Supported Features
3.13S	• LACP 1:1 fast switchover Support • LDP ISIS Autoconfiguration • Link Path Through • LMM Support for Smart SFP • MAC Address Security for EVC Bridge-Domain • MAC Limiting per VFI and BD • match any QoS classification • match/set exp • MFI - VPLS BGP Signaling • MIB support • Modular QoS CLI (MQC) • MPLS -TP: IP Less trace support (NodeId, LinkId) • MPLS Forwarding Infrastructure Scalability • MPLS LDP - IGP Synchronization • MPLS Multiprotocol Label Switching (Tag Switching) • MPLS Support for Multi-Segment PWs - MPLS OAM/VCCV (MPLS OAM Support for Multisegment Pseudowires) • MPLS TE - Bundled Interface Support (EtherChannel and MLP) • MPLS TE Link and Node Protection, with RSVP Hellos Support • MPLS TP: IP-less configuration of MPLS TP tunnels • MPLS Virtual Private Networks (VPN) • MPLS VPN - Inter-Autonomous System Support • MPLS-TP Linear Protection with PSC (RFC-6378) • MPLS-TP MIB • MPLS-TP OAM: Continuity Check via BFD • MPLS-TP OAM: Fault Management • MPLS-TP OAM: GACH • MPLS-TP OAM: Ping/Trace • MPLS-TP Path Protection • MPLS-TP: IP addresses for MPLS TP interfaces • MPLS-TP: LDP signaling over MPLS TP LSPs • MPLS-TP: MS-PW with Static and Dynamic PW Support • MPLS-TP: PW Redundancy for Static PWs • MPLS-TP: PW Status for Static PWs • MQC - Multi-Level Priority Queue

Table 2-3   *Supported Features (continued)*

Cisco IOS XE Release	Supported Features
3.13S	• MQC MIB Support • MST on EVC Bridge-Domain • Multi-Level Priority Queue • Multi-protocol BGP - MPLS VPN • Multi-Topology BGP with VRF enhancement • Network Time Protocol (NTP) • NTP Timestamping • NTPv4 hardening through import of open source version 4.2.6p2 (July 2010) • Offloading IPv4 Asynchronous BFD sessions with 3.3ms timers • OSPF - BFD Support for IPv4 • OSPF TTL Security Check • PIC Edge - IPv4 • PIC with FRR over BDI • Port-Shaper and LLQ in the presence of EFPs • QoS ACLs • QoS Classification based on EFPQoS Packet Marking • QOS Match EFP • QoS Packet Marking • QoS Support • QoS Support for Ether Channels • QoS: Class Based Policing • QoS: Global CLI for CoS to EXP table mapping • RADIUS • Remote LFA FRR and labeled BGP FRR integration • Remote Monitoring MIB Update • Resilient Ethernet Protocol (REP) • REP Configurable Timers or REP Fast Hellos • REP-AG Enhancements • Resilient Ethernet Protocol-no-edge-neighbor-enhancement • RFC 4293 IP-MIB (IPv6 only) and RFC 4292 IP-FORWARD-MIB (IPv6 only) • RSVP - Resource Reservation Protocol • Secure Copy (SCP) • Secure Shell SSH Version 2 Client Support

Table 2-3   *Supported Features (continued)*

Cisco IOS XE Release	Supported Features
3.13S	• Secure Shell SSH Version 2 Server Support
	• SFP-10G-LR
	• SFP-GE-T Support
	• SFP-GE-x support
	• SFP+ optics
	• Show Interface Capabilities
	• Smart Licensing Client for IOS and IOS XE
	• SNMP (Simple Network Management Protocol)
	• SNMP over IPv6
	• SNMPv3 - 3DES and AES Encryption Support
	• SNMPv3 (SNMP Version 3)
	• SPAN
	• Spanning Tree Protocol (STP)
	• Static MAC (multicast) on EFP
	• Static MAC (unicast) on EFP
	• Static Routes for BFD
	• Static VPLS over MPLS-TP
	• Storm Control
	• STP Syslog Messages
	• Support for SFP and SFP+ modules. See the Cisco ASR 920 Series Aggregation Services Router Hardware Installation Guide.
	• Support sending PW Grouping ID TLV
	• Switch Port Analyzer (SPAN) support
	• Sync-E Support
	• Synchronous Ethernet (SyncE): ESMC and SSM
	• Synthetic Frame Loss Measurement (ETH-SLM)
	• TACACS+
	• Temperature and Voltage Monitoring
	• Time of Day Selection
	• Trunk EFP support
	• Trunk EFP Support on Ether-Channel Interfaces
	• TWAMP accuracy enhancements
	• TWAMP RFC compliance
	• TWAMP with RFC Compliance

Table 2-3   Supported Features (continued)

Cisco IOS XE Release	Supported Features
3.13S	• UDLD Support • Unicast Reverse Path Forwarding (uRPF) Loose mode • Unicast Reverse Path Forwarding (uRPF) Strict mode • Virtual Private LAN Services (VPLS) • VPLS • VPLS Autodiscovery, BGP-based • VPLS MAC Address Withdrawal • VPLS over MPLS-TP • VPLS over remote LFA • VPN Inter-AS (Interprovider) • VRF aware BGP translate-update • Weighted RED Support for Differentiated Services Code Point (DSCP) • Y.1731 DMMv1 • Y.1731 enhancements (On-demand and Concurrent support) • Y.1731 Performance Monitoring • Y.1731-PM (Xconnect and Port-Channel Support)

CHAPTER **3**

Caveat List

This chapter describes open and resolved severity 1 and 2 caveats and select severity 3 caveats:

- The "Open Caveats" sections list open caveats that apply to the current release and may apply to previous releases. A caveat that is open for a prior release and is still unresolved applies to all future releases until it is resolved.

- The "Resolved Caveats" sections list caveats resolved in a specific release, but open in previous releases.

The bug IDs are sorted alphanumerically.

> **Note** The Caveats section includes the bug ID and a short description of the bug. For details on the symptoms, conditions, and workaround for a specific caveat you must use the Bug Search Tool.

Cisco Bug Search Tool

Cisco Bug Search Tool (BST), the online successor to Bug Toolkit, is designed to improve effectiveness in network risk management and device troubleshooting. You can search for bugs based on product, release, and keyword, and aggregates key data such as bug details, product, and version. For more details on the tool, see the help page located at http://www.cisco.com/web/applicat/cbsshelp/help.html.

Open and Resolved Caveats

Open Caveats—Cisco IOS XE Release 3.18.9SP (Cisco IOS Release 15.6(2)SP9)

There are no open caveats in Cisco ASR 920 for this release.

Resolved Caveats—Cisco IOS XE Release 3.18.9SP (Cisco IOS Release 15.6(2)SP9)

Caveat ID Number	Description
CSCvu78801	PPPoE VSA tags gets overwritten at each PPPoE IA

Resolved PI Caveats—Cisco IOS XE Release 3.18.9SP (Cisco IOS Release 15.6(2)SP9)

Caveat ID Number	Description
CSCvu19733	Evaluation of CVE-2020-11868 for IOS

Open Caveats—Cisco IOS XE Release 3.18.8aSP (Cisco IOS Release 15.6(2)SP8a)

Caveat ID Number	Description
CSCvo07619	ASR920-BDI IPv6 ping failure_FMFP_OBJ_Download_Failure

Open PI Caveats—Cisco IOS XE Release 3.18.8aSP (Cisco IOS Release 15.6(2)SP8a)

Caveat ID Number	Description
CSCvm79556	MSPW VC down after Switchover (Error Local access circuit is not ready for label advertise)
CSCvj15469	Remove crypto group access check

Resolved Caveats—Cisco IOS XE Release 3.18.8aSP (Cisco IOS Release 15.6(2)SP8a)

There are no resolved caveats in Cisco ASR 920 for this release.

Open Caveats—Cisco IOS XE Release 3.18.7SP (Cisco IOS Release 15.6(2)SP7)

Caveat ID Number	Description
CSCvo07619	ASR920-BDI IPv6 ping failure_FMFP_OBJ_Download_Failure
CSCvp01189	Broadcast storm control triggers without any Broadcast traffic, cont...

Resolved Caveats—Cisco IOS XE Release 3.18.7SP (Cisco IOS Release 15.6(2)SP7)

Caveat ID Number	Description
CSCva61618	SADT throws Warnings more than one time for more iterations
CSCvg08224	G8265.1: PTP flaps between HOLDOVER and LOCKED with 64/64 packet rate and HOTSTANDBY
CSCvg21913	AMS port netsync is not up on reload
CSCvi92792	Clock class showing 248 on changing clock class of master "show ptp port running" <POLARIS>
CSCvk07103	HS1-V169: REFSYNC pair is not getting removed while moving from 75.1 Master to default BC
CSCvm12382	ASR-920-12CZ	Netflow entires not created if SDM template is initialized on affected release.
CSCvo47376	Cisco REST API Container for IOS XE Software Authentication Bypass Vulnerability

Caveat ID Number	Description
CSCvp67001	ASR920 CSDL: ASR-920-12SZ-IM secure FPGA
CSCvp86314	ASR920 CSDL: [ASR-920-4SZ-A,ASR-920-4SZ-D,ASR-920-12CZ-A,ASR-920-12CZ-D, ASR-920-10SZ-PD] secure FPGA
CSCvp86329	ASR920 CSDL: [ASR-920-24SZ-M, ASR-920-24TZ-M, ASR-920-24SZ-IM] secure FPGA
CSCvq33362	Vendor specific GLC-BX-D optics not working in ASR920
CSCvb05793	traffic drop observed upto 2 mins on active Sup pull with ECMP
CSCvf20607	ASR1K RSP crash when command 'show ip rsvp sender detail' was executed
CSCvh62861	IOSd crash @ NHRP nhrp_group_tunnel_qos_remove
CSCvj43156	Crash in XDR process: "fib_rp_table_broker_encode_buf.size <= FIB_RP_TABLE_BROKER_ENC_BUF_SZ"
CSCvk17998	Rekey Timer are same for both the Server and Client
CSCvk36863	MAC learning not working in 2 Cylon.
CSCvm64865	[EIGRP] a summary route is updated by an external route
CSCvn56017	Crash while processing ISIS updates when DiffServ-TE is enabled
CSCvn93524	Cisco REST API Container for IOS XE Software Authentication Bypass Vulnerability
CSCvo55194	After RSP switchover label imposition was not programmed in Software on APS standby router
CSCvo66216	IPSec-Session count in "show crypto eli" reaches max causing VPN failure
CSCvp76434	OSPF summary-route (Type 5) redistribute into ospf via 'summary-address' cmd is not install in RIB
CSCvp78236	Crash during SNMP Configuration, ospfv3_pdb_from_router_info
CSCvp81102	IPsec SA installation fails with simultaneous negotiations despite fix for CSCve08418
CSCvp87125	Default-route is not installed in Local PE VRF if there is 0.0.0.0/X route present in routing table
CSCvp99881	BGP set wrong local preference for routes in RPKI invalid state
CSCvq19673	Evaluation of asr1k for TCP_SACK
CSCvq46617	RLFA config causing OSPF to ignore backup path addition for NSSA prefix after primary link flap
CSCvq67901	Crash in HTTP core process

Open Caveats—Cisco IOS XE Release 3.18.6SP (Cisco IOS Release 15.6(2)SP6)

Caveat ID Number	Description
CSCvp01189	Broadcast storm control triggers without any Broadcast traffic, cont...

Resolved Caveats—Cisco IOS XE Release 3.18.6SP (Cisco IOS Release 15.6(2)SP6)

Caveat ID Number	Description
CSCvi96811	PTP scale test fails with 64 slaves
CSCvj43977	CEF inconsistency issue observed after continuous BFD flaps.
CSCvk05865	AIS: box crashed at zl303xx_AprRemoveServer
CSCvm13858	ASR920: Complete Traffic Loss for Existing TEFP Services on New VLAN Add and Remove
CSCvm27110	cefcFRU Removed trap is generated for fixed IM module
CSCvm76155	Input Flows are only seen on the collector- output flows are not exported on ASR 920
CSCvn18271	Link status LED of ASR-920-12SZ-IM MGMT port was keep displayed as green even port is shutdown.
CSCvn47230	QoS impact service: Incorrect classification observed on Router in MPLS core.
CSCvn63516	ASR-920 Ports not coming up after 12x1GEupgradelicense installation
CSCvo19770	Router crashes at hashtable_get_nth_entry
CSCux22473	IPv6 Tracking for route learned from IBGP Neighbor is Down.
CSCux68796	IOS-XE Router - High CPU When Handling get-next on "entStateStandby" MIB
CSCuz74957	Cisco IOS and IOS XE Software ISDN Interface Denial of Service Vulnerability
CSCuz99865	IPSec MIB queries returns wrong tunnel count
CSCva00765	crash after no ipv4 multicast multitopology command
CSCva64842	Observing kernel: EXT2-fs error while moving between polaris and MCP_DEV
CSCve56559	Incorrect Track Resolution Metric for GRE Tunnel
CSCve57830	SUBALTNAME DECODE fails for APIC_EM self-signed cert when validating server identity
CSCve89361	Crash in SISF while processing IPv6 packet
CSCvf11776	VRRPv3 with VRRS remains NOT READY after shutdown Port-channel IF.
CSCvf36269	Cisco IOS and IOS XE Software Network Plug-and-Play Certificate Validation Vulnerability
CSCvf73552	VRRP non-zero authentication data on 16.3.3
CSCvf96294	MIB counter for IPSec tunnels does not decrement under high tunnel scale and churn
CSCvg06142	'ipsm Tunnel Entry' and 'Crypto IKMP' memory leak due to IKE tunnel entry not deleted
CSCvg37952	Cisco IOS XE Software ISR4400 Series IPsec Denial of Service Vulnerability
CSCvh54672	VRRP doesn't work over Port-channel L3 interface
CSCvh72848	"no track resolution ip route" and "default track resolution ip route" not working
CSCvh83319	Interop vrrp doesn't work between cedge and vedge
CSCvi83306	Crash with IOSXE-WATCHDOG: Process = IPv6 RIB Event Handler
CSCvj02910	Reload removing ipv6 VRRP group
CSCvj61307	Cisco IOS XE Software Command Injection Vulnerability
CSCvj73544	ospf routing loop for external route with multiple VLINKs/ABRs

Caveat ID Number	Description
CSCvj86790	RIP does not send updates on unnumbered interfaces after reload of ISR 4k
CSCvj98575	Cisco IOS and IOS XE HSRPv2 Information Leak Vulnerability
CSCvk03910	OSPF neighbor stuck in loading after VSS switchover
CSCvk56331	Initial contact in IKEv1 phase 2 rekey (QM1) causes all crypto sessions to drop
CSCvk71047	Router fails to reserve necessary ports for VPN traffic (UDP 500 & 4500) for ISAKMP
CSCvm00765	BFD crash on imitating traffic loss
CSCvm02572	Router crashes on SSH connection with "login on-failure log" enabled
CSCvm28421	ASR901-ESMC padding is having non-zero random values which is causing duplicate QL-TLV
CSCvm40496	iBGP PE-CE When Route-Reflect enable VRF import all Route Target.
CSCvm51112	"clear crypto sa vrf MyVrf" triggers crash after updating pre-shared-keys
CSCvm55465	BGP updates missing ISIS advertising-bits led to LDP label purge on peer.
CSCvm62554	BGP multipath feature drops a path from list after BGP update event
CSCvm76070	Not able to enable the CLI http-status-code-ignore
CSCvm92116	Bulk-sync failure due to bgp router-id interface Loopback0
CSCvm93603	IP change on dialer-int does not trigger a correct "local cryto entpt"in DMVPN
CSCvm95236	BGP update not properly processed by inbound route-map
CSCvn07060	Redistributed metric is not be applied if it is in narrow-style
CSCvn28017	ISR4331 Routers May Crash When "eigrp default-route-tag" Configured on IPv4 AF
CSCvn59020	Modified EIGRP timers on Virtual-Template put all associated Vi interfaces into passive mode

Open Caveats—Cisco IOS XE Release 3.18.5SP (Cisco IOS Release 15.6(2)SP5)

Caveat ID Number	Description
CSCve08311	CFM ping failing if configured interface is holding SSFP
CSCve36953	ASR920: L2 Bridge-domain Forwarding Fails as Packets Dropped in PreMET
CSCve68911	Nested Enhanced Route Refresh requests triggers Stale Prefixes.
CSCvf11776	VRRPv3 with VRRS remains NOT READY after shutdown Port-channel IF.
CSCvh90836	Kernel - "Unknown" OBFL crash due to "swapper" task process
CSCvi56478	Ping failure from ASR920 to ASR903 w/ EAMapperError1 counter after upgrade to specific ES image
CSCvi61745	Crash when running MPLS Tunnel protection command
CSCvj02910	Reload removing ipv6 VRRP group
CSCvj43156	Crash in XDR process: "fib_rp_table_broker_encode_buf.size <= FIB_RP_TABLE_BROKER_ENC_BUF_SZ"

Caveat ID Number	Description
CSCvj69019	RJIL : 10G CRC error in ASR920
CSCvk05865	AIS: box crashed at zl303xx_AprRemoveServer
CSCvk22449	BGP Traceback/Crash seen with 20k IPv4 BGP scale after reload/clearing bgp
CSCvk35460	counter not increasing under show interface
CSCvm00765	BFD crash on imitating traffic loss
CSCvm21736	"negotiation auto" config gets removed from dual rate ports post node Hard reset/Power cycle

Resolved Caveats—Cisco IOS XE Release 3.18.5SP (Cisco IOS Release 15.6(2)SP5)

Caveat ID Number	Description
CSCsd58148	%SEC_LOGIN-4-LOGIN_FAILED does not show username in [user:]
CSCue25168	TPM reserves UDP/4500 for no apparent reason
CSCuv90519	Map doesn't get updated with socket change on local address change
CSCuy27746	CDP packet causes switch to crash due unexpected exception to CPUvector
CSCuy54623	Evaluation of all for OpenSSL March 2016
CSCuy96461	IOS-XE EPC does not work on port-channel subinterfaces
CSCuz42299	Crash when configuring CWS
CSCuz52528	Evaluation of all for OpenSSL May 2016
CSCuz92785	Evaluation of all for NTP June 2016
CSCva08142	IOSd crash on LISP enable router
CSCva36556	Smart call home crash with debugs enabled
CSCvb71086	CWS + NVI NAT not working for web traffic
CSCvc07577	Crash in BGP due to regular expressions
CSCvc23569	Evaluation of all for NTP November 2016
CSCvc60745	tcp_getbuffer memory leak - refcount not reduced when packet dropped
CSCvc98571	EEM applet will not release the Config Session Lock if it ends when CLI is in configuration mode
CSCvd21340	IOSd crashed while issuing 'show isdn status'
CSCvd35443	Site-prefix-learning:Crash on EIGRP process when issuing "no ip vrf red" on HMCBR
CSCvd80715	ASR1k IOSD crash due to memory corruption in aaa accounting
CSCvd80837	Crash observed in DHCP SIP
CSCve00087	Line-by-Line sync verifying failure on command: client test01 server-key 0 Password
CSCve55089	BGP crashes at bgp_ha_sso_enable_ssomode
CSCve76947	Eigrp hmac-sha-256 secret string changes when show running-config is executed

Caveat ID Number	Description
CSCvf21005	config mismatch after code upgraded
CSCvf35507	Crash in SSH Process due to SCP memory corruption
CSCvf37923	Crash due to Stack overflow
CSCvf63979	Crash when trying to establish new SSH connection
CSCvf67481	AAA process not sending malloc if dynamic heap free mem is under aaa mem threshold
CSCvf81579	ASR1K: IOSd crash in kmi_initial_check on null map dereference
CSCvg02533	router crashed after triggers with debug
CSCvg03444	Hub MC continues to send EIGRP SAF hellos after adjacency removed
CSCvg39082	Cisco device unexpectedly reloads after TCP session timeout
CSCvg41950	Cisco IOS XE Software Diagnostic Shell Path Traversal Vulnerability
CSCvg43968	Mgr crash @ adjmgr_get_fid_index
CSCvg48470	ISIS l1-l2 redistribution prefix doesnt get redistributed till clear isis rib redistribution is done
CSCvg65763	TOD cisco format got broken.
CSCvg67028	VRF deletion status <being deleted> after removing the RD
CSCvg71566	"no cdp enable" is rewritten to "no cdp tlv app" after reload.
CSCvg85879	BGP sets the wrong Local Preference for routes validated by RPKI server
CSCvg87048	Few Stale session are observed during vpdn longetivity
CSCvg93982	IOS XE entSensorThresholdNotification trap is not generated for Card Temperature
CSCvh06249	Crash when receiving EVPN NLRI with incorrect NLRI length field value
CSCvh55744	SSH password length restricted to 25 for avoiding one of the low impact vulnerability.
CSCvh58909	OSPFv3 cost calculation not correct in some specific topology
CSCvh69518	%SYS-3-TIMERNEG:Cannot start timer with negative offset Process= "ARP Background"
CSCvh96821	ASR1004 started relaying clients' DHCP Discover messages to DHCP Server with the wrong IP address
CSCvi01558	iBGP dynamic peer using TTL 1
CSCvi42002	CDP packets not getting encapsulated over multipoint GRE tunnel
CSCvi42821	ASR920 crashes when polling CISCO-CDP-MIB in hide_ipsec_port
CSCvi44298	ISR4451 Installs 2 IPsec SA's with different peers having same proxy identities
CSCvi52608	CLI show aaa clients detailed command triggered SSH to crash
CSCvi65958	Standby RP crashes due to Memory usage in ospf_insert_multicast_workQ
CSCvi70145	ASR1k	Segmentation fault in dhcp_sip process
CSCvi72479	ISR4K CWS - admission commands override (method-list vs bypass list)
CSCvi74088	link local multicast packets are received when the SVI is in down state
CSCvi93528	PI IOSd reload due to call-home at kex_dh_hash conn pointing to eem
CSCvj00222	asr920:Intermittent packet drops for small size vrf ping (64-72)
CSCvj11708	ASR 920 crash in RP0 cylon mgr when a BDI was created
CSCvj23301	IOS: Crypto Ruleset fails to get deleted
CSCvj29126	RADIUS client on network fails to solicit PAC key from CTS even though the device has a valid PAC

Caveat ID Number	Description
CSCvj44239	ASR920 reloads with an IOSD crash @ mcp_nv_write
CSCvk10633	bgp crash while running show command and same time bgp peer reset
CSCvk12131	Downgrade 16.10:sdm template changes from max-qos-video to unknown in 3.18SP & netflow-video in 16.9
CSCvk22455	3650 configured with AE and PK country codes crashes when 3800 AP plugged in
CSCvk49905	ASR907 RSP3C : Crash when shifting the layer 2 LACP member peer from one link to another
CSCvk58239	ASR920-PSU removal and insertion results in router stuck.
CSCvk65739	A900-IMA2Z will not come online after upgrade to 3.18.3SP

Open Caveats—Cisco IOS XE Release 3.18.4SP (Cisco IOS Release 15.6(2)SP4)

Caveat ID Number	Description
CSCva61618	SADT throws Warnings more than one time for more iterations
CSCvd58258	IOS-XE display issue show hw-module subslot X/X transceiver X idprom detail
CSCve54554	ASR-920-12SZ-IM will not warn when copying an invalid image
CSCvg88747	IOS hung and stuck in loop if there is any issue in USB port

Resolved Caveats—Cisco IOS XE Release 3.18.4SP (Cisco IOS Release 15.6(2)SP4)

Caveat ID Number	Description
CSCvd87285	ASR920 - Display issue - Egress i/f and L2 stats shows "unknown" and no packet drops
CSCvg14825	Require varbind entSensorPrecision,Scale & Type along with trap entSensorThresholdNotification
CSCvg85163	ZTP not triggered with Gratuitous ARP
CSCvg97160	on ASR920-24SZ-IM Tengig interface MTU has not been set more than 1500 in H/W
CSCvh86486	ASR-920-12SZ-IM: CIsco ASR 920 routers issue with sfp-h10gb-cu1m cabling

Open Caveats—Cisco IOS XE Release 3.18.3SP (Cisco IOS Release 15.6(3)SP2)

Caveat ID Number	Description
CSCve54813	PUNT_KEEPALIVE Fail and RSP2A-64 and RSP2A-128_Mgr Crash in Adjacency Manager on Reload Soak of Peer ASR920
CSCvf03668	Mid-chain ADJ Error Object on MPLS TE Tunnel Interfaces and Core Gig Flap SOAK
CSCvf35944	XE318SP3-MCAST_hardening: P2MP-Te : Traffic drop with "clear ip mroute *"
CSCvf46252	ASR920 crash in RSP2A-64 and RSP2A-128_mgr when MPLS TE interface shut down
CSCvf84386	ASR920: Router crashed after configuring PPP CHAP in multilink interface(OC3IM OC12IM)

Resolved Caveats—Cisco IOS XE Release 3.18.3SP (Cisco IOS Release 15.6(3)SP2)

Caveat ID Number	Description
CSCva27296	ASR920: Enhance the show command to dump the DDR interrupt registers.
CSCvb32221	L2: OSPF over untag BDI failed after switching from tagged BDI to untag.
CSCvc20962	Port handle becomes NULL for a LB Map object
CSCvc27903	Part of data structure for MPLS labels on ASR920 is missing
CSCvc27889	ASR920: Observing media type showing unkown on few reloads
CSCvc47552	IPv6-access list with fragments dropping non fragments packets
CSCvc75529	Enhancement to generate an alarm to indicate low SD Card space
CSCvc76934	ASR 920-I/O and ASR-920-12SZ-IM -10G combo ports stop passing traffic when both ports has 1G Cu-SFP.
CSCvc77898	BDI MTU config gets lost after reboot
CSCvc97815	Unable to configure BGP EVPN services on ASR-920-12SZ-IM
CSCvd03480	ASR920 - Interfaces take a long time to come up with certain non Cisco SFPs
CSCvd30613	Drop rate not calculated proper for parent policy in HQoS wth shaper apply
CSCvd48351	configure/unconfigure "l2protocol peer cdp" tracebacks are seen
CSCvd50633	Traceback seen on doing default interface when multiple MST instance exists
CSCvd52872	IPv4 ACL is still active when deleted from interface configuration
CSCvd75657	ASR920 drops DHCP offer packets, results in ip address not assigned to the dhcp clients
CSCvd82801	BFD sessions fail to come up with video template
CSCvd89772	Access list rejects fragmented packet
CSCve02586	console response delay when use monitoring/no monitoring CLI

Caveat ID Number	Description
CSCve04262	RSP2A-64 and RSP2A-128 Mgr Crash in Adjacency Manager LoadBalance Get FID on Core Gigs Flaps SOAK
CSCve06064	ASR920: Packet drop on adding and deleting the VLANs in Trunk EFP over 10G link.
CSCve24229	Fan Profile for TSOP and VCOP SSFP not working in Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M Aggregation Services Router
CSCve25677	ASR920//15.6(2)S1//MET ENTRYS EXHAUSTED logs are seen frequently
CSCve36546	Unprotected Tracelogs Fix
CSCve37021	MPLS_PACKET-4-NOLFDSB: MPLS packet received on non MPLS enabled interface
CSCve59160	Transceiver monitoring is happening even though there is no transceiver
CSCve60389	ASR920 RSP2A-64 and RSP2A-128_mgr crash
CSCve61214	G8275.1: Master disqualified even though packets are flowign fine
CSCve61318	Y1731 delay timestamp is 0 in the asr920
CSCve89460	'RSP2A-64 and RSP2A-128_mgr_F0-0.log' tracelog filing bootflash continously
CSCve95009	DATA traffic getting wrongly classified in H-QoS
CSCve96485	IGMP snooping: Packet drops due to IGMP leave scenario in different BD
CSCve99755	Crash due to DHCP snooping at the moment of changing a bridge domain.
CSCvf08561	RSP2A-64 and RSP2A-128_Mgr Crash in Adjacency Manager Update FRR NextHop on Backup Core Gig Flap Soak
CSCvf09101	XE318SP3: Multicast hardening-S,G not formed after continuous clear ip mroute
CSCvf10067	ASR920//15.6(2)S1//Broadcast Storm detected when interface is brought up
CSCvf14556	VLAN based egress classification fails for incoming untagged frames; and for tagged frames with POP0
CSCvf15605	kernel core file generation not working on Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M Aggregation Services Router or Cisco ASR 920-10SZ-PD Aggregation Services Router
CSCvf30188	ONS-SE-Z1 is not recognized in Ten Gigabit ports
CSCvf36147	'negotiation auto' command is not saved in startup configs after reload in Cisco ASR 920 Series Aggregation Services Router
CSCvf36155	ASR920: XE318 SP3 - VPLS traffic with LFA protection sees high loss when backup path is shut
CSCvf39270	ASR 900 is generating a lot of "iomd_0-0.log" files saved in bootflash.
CSCvf43516	ASR920 - Storm Control when using bps - Counters incorrect
CSCvf52287	DOM not working for SFP-10G-LR from Cisco-AVAGO vendor

Open Caveats—Cisco IOS XE Release 3.18.2SP (Cisco IOS Release 15.6(2)SP2)

Caveat ID Number	Description
CSCvc62508	Virtual ppp down down
CSCvc76934	Incomplete ARP on TenGig interface of ASR-920-12SZ-IM
CSCvd03965	"MET ENTRYS EXHAUSTED" caused router to crash
CSCvd02153	Router crashes due to mpls/ospf config on interface

Resolved Caveats—Cisco IOS XE Release 3.18.2SP (Cisco IOS Release 15.6(2)SP2)

Caveat ID Number	Description
CSCuv60473	MVPN_GRE: Ingress PE crash observed while removing the configs in all PE routers
CSCva18515	RSP2: CEM & ATM traffic wrong classification at ingress
CSCva75918	LLQ output deviates when interface MTU is set to >5000
CSCva96758	BW remaining percent works unexpectedly in a certain sequence.
CSCvb41289	QoS crash@cgm_xrule_create seen on Polaris image during soak test
CSCvb45956	Polaris: MET chain is not formed for few groups in Extranet config
CSCvb57842	ASR920 - asks to save configuration with no changes
CSCvb58963	RSP2: Exceed Action transmit not working in 1R2C Policer if Marking applied in QoS Policy
CSCvb79971	TWAMP VRF: Negative RTT is seen with end to end
CSCvb84066	IOS-XE: IPv6 forwarding issue caused by Neighbor Discovery.
CSCvb95332	Removal of Ipv6/v4 acl match class, key_type is not changing to L2 key
CSCvc09556	XE3.18_SP:Snooping with relay not happening with ingress as PC & efp's on both ingress & egress
CSCvc10467	Egress classification fails when COS remaking is unset from ingress EFP that has encap = default
CSCvc11904	UDLD goes to Error-disable mode
CSCvc11984	Policing is not working when we use set action using table map based up on exp
CSCvc17945	BDI interface incorrect goes down with REP ENN configuration changes
CSCvc21551	Router crashes during DM of policy-map with table-map configuration
CSCvc23038	RSP2A-64 and RSP2A-128_mgr crash observed when PBR applied with route-map >10 permit sequences
CSCvc26421	Throughput shows inaccurate values in SADT statistics for 1564
CSCvc27588	ASR-920 @Telnet packets hits the line vty acl, with strict-mode urpf when ip is not on the device
CSCvc32006	Crash seen after attaching IPv6 acl match ingress qos policy

Caveat ID Number	Description
CSCvc33203	ASR-920 crashes with Segmentation fault(11), Process = SNMP ENGINE.
CSCvc43885	Traffic drop seen for some multicast groups after interface flap in mpls P2MP setup
CSCvc56532	Device crash @fman_fp_uea_message_dispatch_internal
CSCvc67487	ASR 920:system crash with MVPN GRE with SDM default template
CSCvc67588	DM add of BRP, not effecting in class-default when the total values exceeds 100%
CSCvc67554	Removal non BRP class result in unexpected behavior in other BRP classes
CSCvc68056	Packets not hitting in class class-default in ipv6_qos_acl

Open Caveats—Cisco IOS XE Release 3.18.1SP (Cisco IOS Release 15.6(2)SP1)

Caveat ID Number	Description
CSCvb45569	Duplicate traffic received for some ipv6 groups in mldpv6
CSCvb57842	ASR920 - asks to save configuration no changes

Resolved Caveats—Cisco IOS XE Release 3.18.1SP (Cisco IOS Release 15.6(2)SP1)

Caveat ID Number	Description
CSCuz91757	L2 IP SLA FTD Measurements are wrong in L2vpn cases
CSCuz93695	Media-type unknown when the interface is in shut state
CSCva12050	High CPU Utilization with Internal Loopback started in Port Down State
CSCva14137	TBC Frequency Traceable flag shown as FALSE even on Freq available
CSCva22045	Crash seen with CFM over VPLS configs in polaris image
CSCva53297	BFD is getting flapped with ACL configurations in RSP2A-64 and RSP2A-128 platforms
CSCva56060	Cisco ASR-920-12SZ-IM: Loss of CCM is not detected for hw offload sessions
CSCva63921	ZTP disable not working on Cisco ASR-920-12SZ-IM
CSCva80050	Vlan 2-to-1 translation is not working for frames with triple tagged.
CSCva95188	CFM UP MEP not working when dual rate port speed changes from 1G to 10G
CSCvb01032	BFD sessions are flapping with latest XE318SP images
CSCvb05017	ASR-920-12CZ-A: half duplex mode is not supported in Cisco ASR 920 Series Routers
CSCvb13570	REP traffic drops all the VLB vlans with different ALT

Caveat ID Number	Description
CSCvb20923	"ifStackTable" populates different index values for EVC after reboot.
CSCvb29825	ASR 920 crashes when 10G interface is shut down
CSCvb30427	REP Convergence is very high and not able to achieve less than 50ms
CSCvb32510	Delay values is not correct for SLA L2 interface
CSCvb61075	ASR920: Dual-rate EEM errors out when hostname has a dot '.' character
CSCvb61078	REP Preemption convergence time is inconsistent and goes beyond 300ms
CSCvb75771	DHCP snooping adds padding before END option in DHCP offer

Open Caveats—Cisco IOS XE Release 3.18.3S (Cisco IOS Release 15.6(2)S3)

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.18.3S (Cisco IOS Release 15.6(2)S3)

Caveat ID Number	Description
CSCuz01029	Flex920: adjmgr_lb_update_fid crash on removing fault-oam capability
CSCuz99268	MCAST traffic fails over VPLS during reload/interface flaps
CSCva18878	RSP2A-64 and RSP2A-128 mgr crash @ adjmgr_l3_mpls_update_fid triggered from label notify
CSCva84721	UDLD 9K Err-disable on 920 reboot
CSCvb05017	ASR-920-12CZ-A: half duplex mode is not supported in Cisco ASR 920 Series Aggregation Services Router
CSCvb29825	ASR920 crashes when Teng interface is shut down
CSCvb45956	Polaris: MET chain is not formed for few groups in Extranet config
CSCvb61075	ASR920: Dual-rate EEM errors out when hostname has a dot '.' character
CSCvb75771	DHCP snooping adds padding before END option in DHCP offer
CSCvb84066	IOS-XE: IPv6 forwarding issue caused by Neighbor Discovery.
CSCvc17945	BDI interface incorrect goes down with REP ENN configuration changes
CSCvc20973	MLDP-profile-14: s,g entry not formed for random multicast groups
CSCvc23090	PW disp object goes NULL when there is an encap change.
CSCvc76934	ASR 920-I/O and ASR-920-12SZ-IM -10G combo ports stop passing traffic when both ports has 1G Cu-sfp.
CSCvc77467	Out of order/duplicate packets received at the mutlicast receiver end
CSCvd03480	ASR920 - Interfaces take a long time to come up with certain non Cisco SFPs

Caveat ID Number	Description
CSCvd03965	"MET ENTRYS EXHAUSTED" caused router to crash
CSCvd48351	configure/unconfigure "l2protocol peer cdp" tracebacks are seen
CSCvd50633	Traceback seen on doing default interface when multiple MST instance exists
CSCvd52872	IPv4 ACL is still active when deleted from interface configuration
CSCvd75657	ASR920 drops DHCP offer packets, results in ip address not assigned to the dhcp clients

Open Caveats—Cisco IOS XE Release 3.18.2S (Cisco IOS Release 15.6(2)S2)

Caveat ID Number	Description
CSCuz99268	MCAST traffic fails over VPLS during reload/interface flaps
CSCvb05017	ASR-920-12CZ-A: half duplex mode is not supported in Cisco ASR 920 Series Aggregation Services Router
CSCvb61075	ASR920: Dual-rate EEM errors out when hostname has a dot '.' character

Resolved Caveats—Cisco IOS XE Release 3.18.2S (Cisco IOS Release 15.6(2)S2)

Caveat ID Number	Description
CSCuy19700	ASR 920 not learning VRRP MAC address
CSCva12050	High CPU Utilization with Internal Loopback started in Port Down State
CSCuz91757	L2 IP SLA FTD Measurements are wrong in L2vpn cases
CSCvb13570	REP traffic drops all the VLB vlans with different ALT
CSCva80050	Vlan 2-to-1 translation is not working for frames with triple tagged.
CSCva63921	ZTP disable not working on ASR-920-12SZ-IM
CSCuv60473	MVPN_GRE: Ingress PE crash observed while removing the configs in all PE routers
CSCuy17989	8275.1: PTP packet drop seen with 100% line rate background traffic
CSCuz29128	Router crashed while unconfiguring crypto certificates
CSCuz89006	ASR920 allows incorrect speed setting when using 100FX SPF
CSCva41689	ASR920 pair with SFP-GE-T arp learining
CSCuz73776	DOM information not seen 100FX SFPs

Caveat ID Number	Description
CSCva87757	Few third party SFP's not detected upgrade from 3.14.1 to 3.16.3
CSCuz86786	UDLD Moves to Err Disable in ASR 9000 on reloading ASR920

Open Caveats—Cisco IOS XE Release 3.18SP (Cisco IOS Release 15.6(2)SP)

Caveat ID Number	Description
CSCva46151	Temperature warnings not displayed for few optics
CSCva56060	ASR-920-12SZ-IM: Loss of CCM is not detected for hw offload sessions
CSCuz91757	L2 IP SLA FTD Measurements are wrong in L2vpn cases
CSCva63921	ZTP disable not working on ASR-920-12SZ-IM
CSCuz80170	Flex920: LB Obj Download Failures on flapping core interface
CSCva49809	2Sec delay observed between interface "shut" of a port and "admin down"
CSCva44700	ASR-9xx - False Alarmas SFF8472-3-THRESHOLD_VIOLATION SFP CWDM-SFP-xxxx

Resolved Caveats—Cisco IOS XE Release 3.18SP (Cisco IOS Release 15.6(2)SP)

Caveat ID Number	Description
CSCuz48571	G.8032 bi-directional traffic convergence very high between normal nodes
CSCuz27110	QinQ traffic over single Tag dot1q Encap, dropping for 0x9100 by ASR920
CSCuy09202	ASR920- MCAST THS:IPv4 and IPv6 Multicast traffic doesn't flow over VPLS
CSCuz99268	MCAST TRAFFIC FAILS OVER VPLS DURING RELOAD/INTERFACE FLAPS
CSCuy62182	IN/OUT Packet counters is not matching in some IPSec tunnels
CSCuy13441	Traffic drops with "L2blob info not available" found error
CSCuy44594	SFP ports are missing to populate dynamically in entPhysicalTable.
CSCuy33097	DWDM SFP link down in IMs 8T1Z and 8S1Z after router reload
CSCuy87268	iomd process continuosly consuming the memory
CSCuz86786	UDLD Moves to Err Disable in 9K on reloading ASR920

Open Caveats—Cisco IOS XE Release 3.18.1S (Cisco IOS Release 15.6(2)S1)

Identifier	Description
CSCva18878	MPLS traffic engineering crash when deleting tunnel

Resolved Caveats—Cisco IOS XE Release 3.18.1S (Cisco IOS Release 15.6(2)S1)

Identifier	Description
CSCuy33097	DWDM SFP link down in IMs 8T1Z and 8S1Z after router reload
CSCuy52882	MLACP Standby-node forwarding broadcast and multicast traffic
CSCuy84775	ASR903 slow responds when typing in CLI on telnet session
CSCuy87268	iomd process continuously consuming the memory
CSCuz13418	ASR920:10g Ports go admin down after reload or removing SFP
CSCuz27110	QinQ traffic over single Tag dot1q Encap, dropping for 0x9100 by ASR920
CSCuz29128	ASR-920-12SZ-IM device crashed while unconfiguring crypto certificates
CSCuz48571	G.8032 bi-directional traffic convergence very high between normal nodes
CSCuz61943	Memory leak observed during multiple MP2MP to P2MP SWo in MLDP

Open Caveats—Cisco IOS XE Release 3.18S (Cisco IOS Release 15.6(2)S)

Identifier	Description
CSCuw39436	G.8275.1: Announce timeout on a passive port does not make it Master
CSCux08580	Rate limiter require for Non-UDP/TCP IPSec packets
CSCux28430	TIME-HOG message seen during the boot up
CSCux42429	PTP stats are increasing in egress even port is in down state
CSCux47926	IPSec: Performance Failure, all traf is not reaching/processed by linux
CSCux57302	Higher rate oversubscribed traffic through IPsec hungs mgmt port/crashes
CSCux79944	Antireplay counter not incrementing also syslog is not getting printed
CSCux97440	IPSec: Traffic failure on Tunnels with "Out SA Not Found" error
CSCux80743	IPSec tunnel interface counters does not work
CSCuy13441	Traffic drops with "L2blob info not available" found error

Identifier	Description
CSCuy29638	ASR920 drop label traffic in certain range
CSCuy61923	Igmp ingress ignore-rewrite support for metro-access license
CSCuy09202	ASR920- MCAST THS:IPv4 and IPv6 Multicast traffic doesn't flow over VPLS
CSCux91894	iomd memory leak

Resolved Caveats—Cisco IOS XE Release 3.18S (Cisco IOS Release 15.6(2)S)

Identifier	Description
CSCuv70988	ASR920:node crashed @ punt path while peer router reload
CSCuw17316	ASR-920 becomes completely unresponsive on TCAM exhaustion
CSCuw45886	Mcast Packet drop on ASR920 when sending high amounts of mcast packets
CSCuw50214	PID not displayed in third party optics
CSCux51509	Y1731: DMM session is incomplete for Untagged MEPs
CSCux83911	ASR920: unexpected crash with ISIS over L2VPN
CSCux85181	Self-IP ping failure on ASR920
CSCux98051	Transit packet drops in the network with certain packet sequences
CSCuw75436	ASR-920-12SZ-IM-CC: CRC Errors observed at high temperature.

Open Caveats—Cisco IOS XE Release 3.17.2S

Identifier	Description
CSCuv60473	MVPN_GRE: Ingress PE crash observed after script run in cleanup
CSCuy82744	2Sec delay observed between interface "shut" of a port and "admin down"
CSCuz27110	QinQ traffic over single Tag dot1q Encap, dropping for 0x9100 by ASR920
CSCuz54192	Object entPhysicalVendorType returns cevPort10GigEthPhy for one gig port
CSCuz65772	Classification using MPLS EXP bits in egress works wrongly
CSCuz73357	Egress traffic dropped after attaching/removing shaper in 100M port EFP

Resolved Caveats—Cisco IOS XE Release 3.17.2S

Identifier	Description
CSCux07929	ASR 920Crashed on Un-config of X-Conn & Config of VPLS for same S.I
CSCux08068	ASR-920-12SZ-IM: Module type for the Conformal Coating device need to be changed.
CSCux29698	Multi-Level Priority Shaper Failed to work for BRR in Cisco ASR 920 Series Aggregation Services Router
CSCux32814	ASR920: High CPU Utilization with MPLS THS configs
CSCux35194	config replace doesn't replace egress re-marking
CSCux65980	ASR 920 runs into RSP2A-64 and RSP2A-128 mgr crash on RSP2A-64 and RSP2A-128 stats read/erase
CSCux83911	ASR 920: unexpected crash with ISIS over L2VPN
CSCux85235	ASR-920-12SZ-IM support for MPLS/VLAN parsing for Jitter/Delay support
CSCux89749	Continuous Max fifo overflow dmesg and mac learning stopped
CSCuy09082	Getting the message "Could not fire up kadis" on REP Config
CSCuy23649	ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M : FPGA SGMII Fix for Self IP ping issue-commit in XE318
CSCuy29638	ASR920 drop label traffic in certain range
CSCuy47193	Ping fails after attaching/removing shaper policy
CSCuy47518	ASR 920: FPGA SGMII Fix for Self IP ping issue-commit in XE318
CSCuy48850	Could not Ping to IP via VRF even after removing IP SLA
CSCuy55015	ASR920: Local subnet packets denied at egress ACL configured on BDI.
CSCuy52882	MLACP Standby-node forwarding broadcast and multicast traffic
CSCuy55664	ASR920: Dual-rate port SFP optics swap leads to egress forwarding issues
CSCuy69370	AN: CD channel goes down if BDI is created with ID same as CD encap
CSCuy84775	ASR903 slow responds when typing in CLI on telnet session
CSCuy87231	IPv4 ACL logs are not shown when applied at the egress of BDI
CSCuy93905	ASR920//ACL doesn't filter traffic.
CSCuy97577	Punt path delay on the received packets
CSCuz02744	CPU Hog Tracebacks observed causing ASR920 for low memory
CSCuz04066	Eqosportmap table corrupted in MLACP case
CSCuz04614	MEP sessions are learnt only after router reload
CSCuz10315	PPPoE packets are punted to CPU when IP arp inspection is enabled
CSCuz33829	Egress traffic dropped completely after attaching/removing shaper
CSCuz34714	BDI interface stays down incorrectly on REP edge node
CSCuz36551	two way active delay measurement enabled for Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M
CSCuz48571	G.8032 bi-directional traffic convergence very high between normal nodes
CSCuz58099	Load balance is not done for the packets which has MPLS headers
CSCuz61943	Memory leak observed during multiple MP2MP to P2MP SWo in MLDP

Identifier	Description
CSCuy71114	ASR920: Match Vlan on T-EFP is not working
CSCuy74428	2R3C policer is accepted at the egress without error but works as 1R2C

Open Caveats—Cisco IOS XE Release 3.17.1S

Identifier	Description
CSCuw50415	Crash seen @ hwidb_iftype_unlist while doing unconifg of channel-group
CSCux12702	Calculation of IR with received bytes is mismatch with IR shown in log
CSCux35075	Maximum Latency spike observed with 10 mins of TWAMP traffic
CSCut91096	SAT - L3 Loopback is not working when interface belong to ASIC 1 in RSP2
CSCuy19700	ASR 920 not learning VRRP MAC address
CSCuy19870	mac security relearn violation cause port stop processing traffic
CSCux56843	TWAMP functionality support over Trunk EFP for ASR920
CSCux24213	ASR-920 L2VPN connectivity issue on interface flap
CSCux83911	ASR920: unexpected crash with ISIS over L2VPN
CSCuv70988	ASR920:node crashed @ punt path while peer router reload
CSCux98051	Transit packet drops in the network with certain packet sequences
CSCuv60473	MVPN_GRE: Ingress PE crash observed after script run in cleanup
CSCuq71510	Cisco ASR 920 Series Aggregation Services Router: TC is not updating the correction field for PTPoIPoMPLS encap
CSCuw17316	ASR-920 becomes completely unresponsive on TCAM exhaustion
CSCux71302	v4 qos-acl is not working in certain order
CSCuy20852	Add support for Transition networks SFPs
CSCuv00236	irq 20: nobody cared and traceback coming in aux console in boot
CSCuw93801	IOS Fix to unset BOOT_PARAM rommon variable
CSCuw73293	self ping failed & REP port in failed state though link is up/up
CSCux85181	Self-IP ping failure on ASR920
CSCus46145	TCP packets are bypassing ACL on MGMT interface
CSCuw35241	TIMEHOG HITSUMM EMAN CMAND tracebacks observed with scale config

Resolved Caveats—Cisco IOS XE Release 3.17.1S

Identifier	Description
CSCux66417	Logs dont increment when IPv4 extended ACL with "deny" is applied on EFP
CSCuw78678	No traffic match logged with logging enabled IPv6 ACL on EVC

Identifier	Description
CSCuv75925	No traffic match logged with logging enabled L3 ACL on EVC
CSCux12702	Calculation of IR with received bytes is mismatch with IR shown in log
CSCux35075	Maximum Latency spike observed with 10 mins of TWAMP traffic
CSCut91096	SAT - L3 Loopback is not working when interface belong to ASIC 1 in RSP2
CSCuw75875	SAT- Traffic Gen - Color Aware - Tx Bytes more than CIR/EIR
CSCux21861	BDI Interfaces goes down during REP manipulation
CSCux07924	L2PT Encap LOAM stats Failed to increment on EoMPLS but Decap stats does
CSCuw93763	Mac-learning stops triggers on with same mac learnt in diff efps in a BD
CSCuw19811	SADT throws frequent Warnings for less duration of iterations
CSCuw71923	SAT - IR (kbps) is always 0 in passive measurement
CSCuv83498	STATIC EAID DUPLICATE CREATION ATTEMPT error seen on config-replace
CSCuw59390	Storm-control counters wrongly incrs for MCAST when interface is "shut"
CSCuw64518	Storm-Control logs are seen on shut down interface
CSCux56843	TWAMP functionality support over Trunk EFP for ASR920
CSCux51509	Y1731: DMM session is incomplete for Untagged MEPs
CSCut36166	[asr920] Punting of CD packets by PD to depend on AN PI punt registries
CSCux24213	ASR-920 L2VPN connectivity issue on interface flap
CSCuv70988	ASR920:node crashed @ punt path while peer router reload
CSCuw42718	SR: mpls bytes switched counter not incrementing when SR-LDP coexistence
CSCux98051	Transit packet drops in the network with certain packet sequences
CSCuw45886	Mcast Packet drop on ASR920 when sending high amounts of mcast packets
CSCuw17316	ASR-920 becomes completely unresponsive on TCAM exhaustion
CSCuq19156	Error message is not displayed when scaling configurations are exceeded
CSCux71302	v4 qos-acl is not working in certain order
CSCuw15687	RJ45 ports are missing to populate dynamically in entPhysicalTable.
CSCux95334	snmp support for cc fan tray
CSCuw71946	10G port license status display issue
CSCuv00236	irq 20: nobody cared and traceback coming in aux console in boot
CSCuw93801	IOS Fix to unset BOOT_PARAM rommon variable
CSCux16417	shut interface is no shut after reload or after media type is changed

Open Caveats—Cisco IOS XE Release 3.17S

Identifier	Description
CSCuw42718	SR: mpls bytes switched counter not incrementing when SR-LDP coexistence
CSCuw50415	Crash seen @ hwidb_iftype_unlist while doing unconifg of channel-group

Identifier	Description
CSCuv00236	traceback coming in aux console in boot
CSCuw35241	TIMEHOG HITSUMM EMAN CMAND tracebacks observed with scale config
CSCux35533	Fan Profile for ONS-SC-155-TSOP/ONS-SC-622-TSOP SFP
CSCux42536	Cannot execute Xconnect with pseudowire force switchover

Resolved Caveats—Cisco IOS XE Release 3.17S

Caveat ID Number	Description
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA
CSCuy09202	ASR920- MCAST THS:IPv4 and IPv6 Multicast traffic doesn't flow over VPLS
CSCux91894	iomd memory leak
CSCux58640	LDP NSR: Label Mapping Messages Not Sent on RP SSO and VCs Re-bind
CSCva15526	PW down after clear mpls ldp neighbor followed by RSP SSO

Open Caveats—Cisco IOS XE Release 3.16.10S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.16.10S

Caveat ID Number	Description
CSCuv14856	WATCHDOG timeout crash during IPSEC phase 2
CSCvf16448	No all IPv6 GRE crypto tunnels may come up or recover from flapping at scale
CSCvm76452	IPSec background crash while sending SNMP trap
CSCvm95236	BGP update not properly processed by inbound route-map
CSCvn78113	Tunnel PMTUD not being aged out after PMTUD ager timer expires
CSCvo66216	IPSec-Session count in "show crypto eli" reaches max causing VPN failure
CSCvo71721	When sending account-logon ISG do not reply with ACK nor NACK.
CSCvp70459	IOS: Prevent crypto ACL change if already mapped with crypto map configuration
CSCvq19673	Evaluation of asr1k for TCP_SACK

Open Caveats—Cisco IOS XE Release 3.16.9S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.16.9S

Caveat ID Number	Description
CSCvm02572	Router crashes on SSH connection with "login on-failure log" enabled

Open Caveats—Cisco IOS XE Release 3.16.8S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.16.8S

Caveat ID Number	Description
CSCui87222	IP directed-broadcast functionality not working on RSP1/RSP2

Open Caveats—Cisco IOS XE Release 3.16.7S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.16.7S

Caveat ID Number	Description
CSCvf36147	'negotiation auto' command is not saved in startup configs after reload in Cisco ASR 920 Routers
CSCvf43516	ASR920 - Storm Control when using bps - Counters incorrect
CSCvf46252	ASR920 crash in RSP2A-64 and RSP2A-128_mgr when MPLS TE interface shut down
CSCvf52287	DOM not working for SFP-10G-LR from Cisco-AVAGO vendor
CSCvg48170	ASR920: TCAM phase error message flood in RSP2A-64 and RSP2A-128 mgr log file
CSCvh41777	Removal of the policy from the service instance under a Ten Gigabit interface causes traffic loss

Open Caveats—Cisco IOS XE Release 3.16.6S (Cisco IOS Release 15.5(3)S6)

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.16.6S (Cisco IOS Release 15.5(3)S6

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Caveat ID Number	Description
CSCvc56532	Device crashes at fman_fp_uea_message_dispatch_internal
CSCvd52872	IPv4 ACL is still active when deleted from interface configuration
CSCvd03965	"MET ENTRYS EXHAUSTED" caused router to crash
CSCvd75657	Router drops DHCP offer packets, results in IP address not assigned to the DHCP clients
CSCvd48351	configure/unconfigure "l2protocol peer cdp" tracebacks are seen
CSCve37021	MPLS_PACKET-4-NOLFDSB: MPLS packet received on non MPLS enabled interface
CSCvd50633	Traceback seen on doing default interface when multiple MST instance exists
CSCvc77467	Out of order/duplicate packets received at the mutlicast receiver end
CSCva33116	Speed and bandwidth getting changed after reinsert of ONS-SE-100-BX10
CSCva96758	Bandwidth remaining percent works unexpectedly in a certain sequence.
CSCvc67588	DM add of BRP, not effecting in class-default when the total values exceeds 100%
CSCvd30613	Drop rate not calculated proper for parent policy in HQoS with shaper apply
CSCva75918	LLQ output deviates when interface MTU is set to greater than 5000
CSCvc68056	Packets not hitting in class class-default in ipv6_qos_acl
CSCvb41289	QoS crash at cgm_xrule_create seen on Polaris image during soak test
CSCvc67554	Removal non BRP class result in unexpected behavior in other BRP classes
CSCvc21551	Router crash during DM of policy-map with table-map configuration
CSCvc77898	BDI MTU configuration is lost after reboot
CSCvc33203	Router crashes with Segmentation fault(11), Process = SNMP ENGINE.
CSCvc76934	ASR 920-I/O and ASR-920-12SZ-IM -10G combo ports stop passing traffic when both ports have 1G copper SFP.
CSCvd03480	Interfaces take a long time to come up with certain non Cisco SFPs
CSCvc93807	Routing THS: %HANDOFF_FUD-6-FPGA_INTERRUPTS_ERROR seen with latest SP throttle.
CSCvc27889	Observing media type showing unknown on few reloads
CSCvd75738	Autonegotiation on 1G SFPs inserted in 10G ports getting disabled after reload of router
CSCve02586	Console response delay when use monitoring/no monitoring command
CSCve59160	Transceiver monitoring is happening even though there is no transceiver

Open Caveats—Cisco IOS XE Release 3.16.5S (Cisco IOS Release 15.5(3)S5)

Caveat ID Number	Description
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA
CSCvb49400	RSP1:Back to back failed because of either Invalid adjacency in PD or Incomplete adjacency in PD
CSCvc78196	RSP2-RSP2A-64 and RSP2A-128 mgr crashed @ nrm_mpls_modify_egress_label
CSCvc79717	ASR920: cfm up meps not getting learnt over xconnect with double tagged encap (.1ad + .1q)

Resolved Caveats—Cisco IOS XE Release 3.16.5S (Cisco IOS Release 15.5(3)S5)

Caveat ID Number	Description
CSCuz65772	Classification using MPLS EXP bits in egress works wrongly
CSCuz86786	UDLD Moves to Err Disable in 9K on reloading ASR920
CSCva18515	RSP2: CEM & ATM traffic wrong classification at ingress
CSCva18878	RSP2A-64 and RSP2A-128 mgr crash @ adjmgr_l3_mpls_update_fid triggered from label notify
CSCva81754	RJIL: ASR-920 clock stucks at HOLDOVER
CSCvb13570	REP traffic drops all the VLB vlans with different ALT
CSCvb20923	"ifStackTable" populates different index values for EVC after reboot.
CSCvb56617	Convergence of G8032 is high
CSCvb57842	ASR920 - asks to save config with no changes
CSCvb58963	RSP2: Exceed Action transmit not working in 1R2C Policer if Marking applied in QoS Policy
CSCvb61075	ASR920: Dual-rate EEM errors out when hostname has a dot '.' character
CSCvb67281	ASR920- 3rd party 10G optics link is not up
CSCvb71513	RSPAN: shut/no shut required on monitor session for bidir traffic to go over VPLS PW
CSCvb75771	DHCP snooping adds padding before END option in DHCP offer
CSCvb95332	Removal of Ipv6/v4 acl match class, key_type is not changing to L2 key
CSCvc09556	XE3.18_SP:Snooping with relay not happening with ingress as PC & efp's on both ingress & egress
CSCvc10467	Egress classification fails when COS remaking is unset from ingress EFP that has encap = default
CSCvc11904	UDLD goes to Error-disable mode
CSCvc11984	Policing is not working when we use set action using table map based up on exp
CSCvc17945	BDI interface incorrect goes down with REP ENN configuration changes
CSCvc23038	RSP2A-64 and RSP2A-128_mgr crash observed when PBR applied with route-map >10 permit sequences

Caveat ID Number	Description
CSCvc27588	ASR-920 @Telnet packets hits the line vty acl, with strict-mode urpf when ip is not on the device
CSCvc32006	Polaris_dev: crash seen with ipv6_qos_acl configs
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA
CSCvb01725	LEAPSEC: BC in holdover is not sending the last learnt utcOffset
CSCut44696	Semaphore lock error and tracebacks with ERP

Open Caveats—Cisco IOS XE Release 3.16.4S (Cisco IOS Release 15.5(3)S4)

Caveat ID Number	Description
CSCva30065	Packet drops when Cisco ASR920 is connected with SDH on 10Mb/half duplex link
CSCvb01725	LEAPSEC: BC in holdover is not sending the last learnt utcOffset
CSCvb13570	REP traffic drops all the VLB vlans with different ALT
CSCvb20923	"ifStackTable" populates different index values for EVC after reboot.
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA
CSCut44696	Semaphore lock error and tracebacks with ERP
CSCva15526	PW down after clear mpls ldp neighbor followed by RSP SSO

Resolved Caveats—Cisco IOS XE Release 3.16.4S (Cisco IOS Release 15.5(3)S4)

Caveat ID Number	Description
CSCuy19700	ASR 920 not learning VRRP MAC address
CSCva80050	Vlan 2-to-1 translation is not working for frames with triple tagged.
CSCva63921	ZTP disable does not work on Cisco ASR-920-12SZ-IM
CSCuz99268	Multicast traffic fails over VPLS during reload/interface flaps
CSCva87757	Few third party SFPs not detected upgrade from Cisco IOS XE Release 3.14.1 to Cisco IOS XE Release 3.16.3
CSCux42536	Cannot execute Xconnect with pseudowire force switchover

Open Caveats—Cisco IOS XE Release 3.16.3aS (Cisco IOS Release 15.5(3)S3a)

Identifier	Description
CSCut24243	Deactivating IM and inserting New IM timer is not reset
CSCuu43123	ASR920: FIXED Subslot 0 Shutdown Unpowered Config is Not Blocked
CSCuu59445	Message to indicate mismatch between the inserted and activated IM
CSCuv11630	Continuous IOMD crash seen with unsupported 8X 10G IM inserted in ASR920
CSCuy82744	2Sec delay observed between interface "shut" of a port and "admin down"
CSCuz27110	QinQ traffic over single Tag dot1q Encap, dropping for 0x9100 by ASR920
CSCuz65772	Classification using MPLS EXP bits in egress works wrongly
CSCuz65799	ASR 920 configuration is erased after reload
CSCuz72130	Porting changes of a bug from RSP1A and RSP1B to RSP2A-64 and RSP2A-128 platform
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA

Resolved Caveats—Cisco IOS XE Release 3.16.3aS (Cisco IOS Release 15.5(3)S3a)

Identifier	Description
CSCuu21339	ASR920,903: Dying gasp trap is missing Time stamp info in its varbind.
CSCuw17316	ASR-920 becomes completely unresponsive on TCAM exhaustion
CSCuw35571	QOS WRT - Terminal loopback is not happening with Broadcast traffic
CSCuw93801	IOS Fix to unset BOOT_PARAM rommon variable
CSCux07929	ASR 920Crashed on Un-config of X-Conn & Config of VPLS for same S.I
CSCux12690	VPLS: Split-horizon fails when MAC MOV btw PWs in same VPLS domain
CSCux24213	ASR-920 L2VPN connectivity issue on interface flap
CSCux29698	Multi-Level Priority Shaper Failed to work for BRR in Cisco ASR 920 Series Aggregation Services Router
CSCux35194	config replace doesn't replace egress re-marking
CSCux32814	ASR920: High CPU Utilization with MPLS THS configs
CSCux65980	ASR920 runs into RSP2A-64 and RSP2A-128 mgr crash on RSP2A-64 and RSP2A-128 stats read/erase
CSCux83911	ASR920: unexpected crash with ISIS over L2VPN
CSCux85235	ASR-920-12SZ-IM support for MPLS/VLAN parsing for Jitter/Delay support
CSCux89749	Continuous Max fifo overflow dmesg and mac learning stopped
CSCux98051	Transit packet drops in the network with certain packet sequences
CSCuy09082	Getting the message "Could not fire up kadis" on REP Config
CSCuy20852	Add support for Transition networks SFPs

Identifier	Description
CSCuy23649	ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M: FPGA SGMII Fix for Self IP ping issue-commit in XE318
CSCuy29638	ASR920 drop label traffic in certain range
CSCuy47193	Ping fails after attaching/removing shaper policy
CSCuy52882	MLACP Standby-node forwarding broadcast and multicast traffic
CSCuy55015	ASR920: Local subnet packets denied at egress ACL configured on BDI.
CSCuy69370	AN: CD channel goes down if BDI is created with ID same as CD encap
CSCuy71114	ASR920: Match Vlan on T-EFP is not working
CSCuy74428	2R3C policer is accepted at the egress without error but works as 1R2C
CSCuy80676	Error message seen with third party FINISAR SFP
CSCuy84775	ASR903 slow responds when typing in CLI on telnet session
CSCuy87231	IPv4 ACL logs are not shown when applied at the egress of BDI
CSCuy93905	ASR920//ACL doesn't filter traffic.
CSCuy97577	Punt path delay on the received packets
CSCuz02744	CPU Hog Tracebacks observed causing ASR920 for low memory
CSCuz04066	Eqosportmap table corrupted in MLACP case
CSCuz04614	MEP sessions are learnt only after router reload
CSCuz10315	PPPoE packets are punted to CPU when IP arp inspection is enabled
CSCuz33829	Egress traffic dropped completely after attaching/removing shaper
CSCuz34714	BDI interface stays down incorrectly on REP edge node
CSCuz36551	two way active delay measurement enabled for Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M
CSCuz48571	G.8032 bi-directional traffic convergence very high between normal nodes
CSCuz54192	Object entPhysicalVendorType returns cevPort10GigEthPhy for one gig port
CSCuz58099	Load balance is not done for the packets which has MPLS headers
CSCux58640	LDP NSR: Label Mapping Messages Not Sent on RP SSO and VCs Re-bind
CSCuy09202	ASR920- MCAST THS:IPv4 and IPv6 Multicast traffic doesn't flow over VPLS

Open Caveats—Cisco IOS XE Release 3.16.2aS (Cisco IOS Release 15.5(3)S2a)

Identifier	Description
CSCuw50415	Crash seen @ hwidb_iftype_unlist while doing unconifg of channel-group
CSCut91096	SAT - L3 Loopback is not working when interface belong to ASIC 1 in RSP2
CSCuw35571	QOS WRT - Terminal loopback is not happening with Broadcast traffic
CSCux24213	ASR-920 L2VPN connectivity issue on interface flap

Identifier	Description
CSCux76700	Applying egress policy stops IPv6 QoS acl ingress classification
CSCuw17316	ASR-920 becomes completely unresponsive on TCAM exhaustion
CSCuu43123	ASR920: FIXED Subslot 0 Shutdown Unpowered Config is Not Blocked
CSCuv11630	Continuous IOMD crash seen with unsupported 8X 10G IM inserted in ASR920
CSCut24243	Deactivating IM and inserting New IM timer is not reset
CSCuw93801	IOS Fix to unset BOOT_PARAM rommon variable
CSCuu59445	Message to indicate mismatch between the inserted and activated IM
CSCux61364	SFP OIR sometimes fails with %TRANSCEIVER-3-INIT_FAILURE message
CSCus46145	TCP packets are bypassing ACL on MGMT interface
CSCux58640	LDP NSR: Label Mapping Messages Not Sent on RP SSO and VCs Re-bind
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA

Resolved Caveats—Cisco IOS XE Release 3.16.2aS (Cisco IOS Release 15.5(3)S2a)

Identifier	Description
CSCux12702	Calculation of IR with received bytes is mismatch with IR shown in log
CSCux35075	Maximum Latency spike observed with 10 mins of TWAMP traffic
CSCuv04781	Ping is not working with sla configured dest ip address on routed port
CSCuv90964	SAT - CIR and EIR throughput dynamically varies during SLA execution
CSCuw75875	SAT- Traffic Gen - Color Aware - Tx Bytes more than CIR/EIR
CSCux21861	BDI Interfaces goes down during REP manipulation
CSCuu17106	iosd crashed on Overnight Interface / EFP flap test @ neighbor device
CSCux07924	L2PT Encap LOAM stats Failed to increment on EoMPLS but Decap stats does
CSCuw93763	Mac-learning stops triggers on with same mac learnt in diff efps in a BD
CSCuw71923	SAT - IR (kbps) is always 0 in passive measurement
CSCuw59390	Storm-control counters wrongly incrs for MCAST when interface is "shut"
CSCuw64518	Storm-Control logs are seen on shut down interface
CSCux56843	TWAMP functionality support over Trunk EFP for ASR920
CSCux51509	Y1731: DMM session is incomplete for Untagged MEPs
CSCut36166	[asr920] Punting of CD packets by PD to depend on AN PI punt registries
CSCuu30375	ASR900: RSP2A-64 and RSP2A-128_mgr crash on FRR cutover on IP Routes Flaps
CSCuv70988	ASR920:node crashed @ punt path while peer router reload
CSCuw45886	Mcast Packet drop on ASR920 when sending high amounts of mcast packets
CSCuq19156	Error message is not displayed when scaling configurations are exceeded
CSCuw10110	invalid memory read happened @ cgm_object_get

Identifier	Description
CSCuw14611	match-all class with > 1 value of the same type is accepted/works wrong.
CSCuv97402	memory leak on cgm_object_get function call
CSCux71302	v4 qos-acl is not working in certain order
CSCuu98808	ASR920: "entStateTable" doesn't recognize the USB dongle entry.
CSCuw15687	RJ45 ports are missing to populate dynamically in entPhysicalTable.
CSCuw71946	10G port license status display issue
CSCuw75436	Copper combo and Fiber combo AD8158 settings missing
CSCuv04547	Kernel crash seen after plugging out Cu IM
CSCux16417	shut interface is no shut after reload or after media type is changed
CSCux91894	iomd memory leak

Open Caveats—Cisco IOS XE Release 3.16.1aS (Cisco IOS Release 15.5(3)S1a)

Identifier	Description
CSCuu43123	ASR920: FIXED Subslot 0 Shutdown Unpowered Config is Not Blocked
CSCut24243	Deactivating IM and inserting New IM timer is not reset
CSCuv04547	Kernel crash seen after plugging out Cu IM
CSCus46145	TCP packets are bypassing ACL on MGMT interface
CSCuw15687	RJ45 ports are missing to populate dynamically in entPhysicalTable
CSCuu36861	Slave accuracy is bad around 1250nano sec with 100Mbps speed
CSCuu50436	Hybrid BC:Not sharing proper clock class id and identity to the slave
CSCvb34126	L3 Loopback is not working on ASIC 1 interface in RSP2 with latest FPGA

Resolved Caveats—Cisco IOS XE Release 3.16.1aS (Cisco IOS Release 15.5(3)S1a)

Identifier	Description
CSCuv77921	ASR920 doesn't allow the dhcp packet to be parsed with option 82.
CSCuv83498	STATIC EAID DUPLICATE CREATION ATTEMPT error seen on config-replace
CSCut76178	G.8032 state flaps on defaulting interface with IGMP Snooping entries
CSCuv44538	Memory leak due to EFP policer on ASR 920
CSCuv01055	ASR 920 - Remote Ping is not working on Ten gig port with Extended Vlan
CSCuv61769	parser config cache interface adds shutdown to the interface config

Identifier	Description
CSCuw50214	PID not displayed in third party optics
CSCuv11211	Temp raise syslog msg prints on console when PSU remove and insertion

Open Caveats—Cisco IOS XE Release 3.16S (Cisco IOS Release 15.5(3)S)

Identifier	Description
CSCuv11630	Continuous IOMD crash seen with unsupported 8X 10G IM inserted
CSCut97628	UI: Observing traffic drop when license changed from one gig to bulk
CSCus46145	TCP packets are bypassing ACL on MGMT interface
CSCuu43915	Invalid transceiver entries 16 to 19 are shown in entPhysicalTable
CSCuu80848	IOSXE_INFRA-6-PROCPATH_CLIENT_HOG message, while OIR of FAN
CSCuu82652	Duplex LED on Gig0 is green even when no cable is connected
CSCuv04547	Kernel crash seen after plugging out Cu IM
CSCuv11564	Kernel: handle_platform_exception message seen after IM hard OIR
CSCuv25906	Node crashed and console got stuck as punt keepalive not received
CSCuv11211	Sensor ok has reached maximum temp value, Leads to shutdown the system
CSCuv84140	Need to implement correct ICUT value for Four pair forced,POE
CSCuu03349	Timing: Combo Cu IM; 10g Master Accuracy is bad

Resolved Caveats—Cisco IOS XE Release 3.16S (Cisco IOS Release 15.5(3)S)

Identifier	Description
CSCus90963	CPU lockdown on doing write erase/reload with line traffic
CSCur53762	DHCP Option 43 does not work with ZTP due to startup-config
CSCur28664	REP flaps with IGMP snooping & joins/leaves burst
CSCus16500	P2MPTE : Verbatim option for p2mpte LSPs shld be blocked to avoid crash
CSCus62792	Clock class incorrect if PTP is configured after netsync config removal
CSCus94994	False power, volt and bias THRESHOLD_VIOLATION alarms for BX10-U
CSCur92775	Updated Smart SFP profile for Cisco ASR-920-12CZ-A/ASR-920-12CZ-D
CSCut05566	A periodic REP Flaps observed in scaled test-bed
CSCut13111	Trace back Observed on REP as %SM-4-BADEVENT: Event 'pre_empt_ind'
CSCut64494	Configuring EFP immediately after media type change makes EFP down
CSCuu01000	cfm mep domain command causing connectivity issue
CSCuu27902	CCMs on port channel member getting punted with port channel IDB
CSCut55709	cfm_mp_ifh OBJ-DWNLD failure while reload the router
CSCut50324	mac learning stopped on BD and start flooding the packet
CSCuq62491	Convergence more than 12 sec observed during mlacp D failure
CSCus93017	While running NV access script in 5th Feb MCP_DEV trace backs & crashed.
CSCus21083	RPW/RVPLS: BFD for OSPF between BDIs does not come up
CSCut97251	router crash @ nl2mcm_igmp_snooping_enable
CSCus86707	Port inventory is wrongly fetched
CSCus10131	Cisco ASR 920-10SZ-PD Object entPhysicalClass populate as a container for RJ45 ports
CSCus28477	12x1 License status missing in ASR920-24SZ-M and is seen on Cisco ASR-920-12CZ-A/ASR-920-12CZ-D and Cisco ASR-920-4SZ-A/ASR-920-4SZ-D
CSCut31422	Unable to enable 'OC3 Interface' in Smart License mode.
CSCuu58725	Eth CFM PM, sends default domain level 7
CSCut91272	service-policy disappears after reload

Open Caveats—Cisco IOS XE Release 3.15.2

Identifier	Description
CSCus21083	RPW/RVPLS: BFD for OSPF between BDIs does not come up
CSCuv83498	STATIC EAID DUPLICATE CREATION ATTEMPT error seen on config-replace

Identifier	Description
CSCus98350	CPLD version shown in Show platform is HW revision instead of CPLD ver
CSCuv61769	parser config cache interface adds shutdown to the interface config

Resolved Caveats—Cisco IOS XE Release 3.15.2

Identifier	Description
CSCuu17435	RSP2A-64 and RSP2A-128 mgr crash in RSP2 upon appling L3 acl on EVC and EVC in PC
CSCuv37358	Stale TCAM after removing BDI with ACL and reconfiguring
CSCuu36976	VPLS traffic is not taking correct route while sending the traffic out
CSCuv77921	ASR920 doesn't allow the dhcp packet to be parsed with option 82.
CSCuu27902	CCMs on port channel member getting punted with port channel IDB
CSCut55709	cfm_mp_ifh OBJ-DWNLD failure while reload the router
CSCuv00831	Failure@to match local dying gasp on Ethernet line card
CSCuu74961	Intermittent failures of dying gasp seen on Cisco ASR-920-24SZ-IM, ASR-920-24SZ-M, ASR-920-24TZ-M
CSCuu43214	OAM remote loopback is failing for Trunk EFP traffic
CSCuv66875	Port MEP entry have not been removed fully when delete port MEP from DUT
CSCus55728	Tagged traffc not fwded via efp with "untag, priority-t, dot1q" encap
CSCuv46278	valgrind: local datastructure was allocated twice for ELB FID
CSCuv13923	ZTP process is not stopped with ztp clear command
CSCuv04666	% Unable to find mpls-te-dest-list modecisco" message seen during bootup
CSCut97251	router crash @ nl2mcm_igmp_snooping_enable
CSCuu58725	ASR920 / Eth CFM PM, sends default domain level 7
CSCuv85018	huge amount of qos errmsg pileup in RSP2A-64 and RSP2A-128_mgr trace which impact others
CSCuu52410	Match-all class with multi-match works when added in a specific sequence
CSCuv44538	Memory leak due to EFP policer on ASR 920
CSCut91272	service-policy is disappears after reload
CSCuu10641	all the interfaces are admin down state after router upgrade
CSCuv01055	ASR 920 - Remote Ping is not working on Ten gig port with Extended Vlan
CSCuv07771	ASR920:Incorrect error message displayed while try to load wrong ROMMON
CSCuv35142	IM1X IM interfaces are admin down state after router upgrade
CSCuu00644	ZTP service instance config failed to apply on Tengig interface
CSCut97628	Observing traffic drop when license changed from onegig to bulk

Open Caveats—Cisco IOS XE Release 3.15.1

Identifier	Description
CSCus21083	RPW/RVPLS: BFD for OSPF between BDIs does not come up
CSCuu36976	VPLS traffic is not taking correct route while sending the traffic out
CSCuu08649	CEM Circuits dont come up when PE is configured 1st and then CE

Resolved Caveats—Cisco IOS XE Release 3.15.1

Identifier	Description
CSCut40156	IPV6 acl causes LDP down and ospf flap
CSCut28876	ASR903 xconnect uni-directional traffic when new xconnect built or moved
CSCuu52794	ASR903: L-bit in Rx SAToP pkts doesn't trigger AIS to be Tx into TDM AC
CSCut03410	OC12/OC3 :PDH level shut in SATOP is not asserting AIS on remote CE
CSCur94043	mpls packets over PW/VPLS with CW Disabled: Packet corruption is seen.
CSCut13789	IPv6 multicast traffic not switched in bd on RPF failure
CSCup58590	mLDP: IOSXE-PLATFORM:kernel: lsmpi_transmit_thread messages on Console
CSCut74328	Traffic doesnt get flooded to BD members in RPF Fail
CSCus87139	AIS Sent on CESoPSN E1 even after L-bit Cleared by Remote PE
CSCus87631	ASR903 reload when using TCP raw sockets
CSCut26934	CEM-ACR CEMoUDP: IOsd Crash after Reload
CSCur02351	P2MPTE: MFIB HW counter shows incorrect avg pkt size for IIF as Lspvif
CSCuu35146	ASR920 - snmp-server enable traps syslog does NOT work

Open Caveats—Cisco IOS XE Release 3.15S

Identifier	Description
CSCus68778	CEMoUDP-T1/E1:Serial interface shows up/down after reload
CSCup58590	mLDP: IOSXE-PLATFORM:kernel: lsmpi_transmit_thread messages on Console
CSCur20933	RSP2: Multicast ping is not working over the P2MP Tunnel
CSCus82231	Enabling OAM remote loopback Shuts the peer interface down with TEFP
CSCut05566	Few A periodic REP Flaps observed in scaled test-bed
CSCut01460	VRRP IP not pingable from Standby VRRP peer in RPW
CSCus93017	while running NV access script in 5th Feb MCP_DEV trace backs & crashed.

Identifier	Description
CSCut24768	ASR920 - Egress policy with shaping is not working
CSCut36129	Egress Classification on Core of MPLS dosent work withTransport Vlan COS

Resolved Caveats—Cisco IOS XE Release 3.15S

Identifier	Description
CSCur76202	DHCP packets with vlan tag fail to flow with dhcp snooping transparent
CSCus72769	Jumbo packets not going from serial interface to gig interface on RSP1 on reload
CSCur17185	%SFF8472-3-INTERNAL_ERROR: CE0/2/0: ether sub-block missing
CSCur10101	OC3 IM LED state : Even after removal of cable, LED stays green
CSCuq43201	Port channel MAC address overlapping
CSCur29193	HC+BC sending packets to downstream when it is in FREQ_LOCKED.
CSCur58364	L4 classification fails on L3 PC after reload followed by shut/no-shut
CSCuq47525	ASR920 fails to forward ARP packets in unsymmetric tefp/efp configuration
CSCus06289	ELB configured with "re-write pop" loops back traffic without VLAN tag.
CSCuq37604	REP Topology Flaps observed when MAC-Address max limits exceeds
CSCur27714	Traffic issue when RSPAN BD is configured on both TEFP and EFP
CSCur54256	ZTP button press to write erase and reload the box
CSCur49811	ZTP: tftp configuration not downloaded on 'wr erase' and boot
CSCur54498	ZTP:CCE connectivity lost after initial configuration downloaded
CSCup86782	RSP2A-64 and RSP2A-128_mgr crash was observed with soak testing
CSCus34567	ICMP ipv6 packets with 5 and 6th octet of src addr as 806 dropped in 920
CSCuo69717	pim/igmp pkts punted to cpu affects legitimate traffic
CSCuq21917	Mcast software forwarding when source and receivers are on same BD.
CSCuq63591	mrouter port is not flushed after a G.8032 switchover
CSCus03459	LBM packet is getting dropped with CFM_PM configs and SSFP ports
CSCuq37233	Jitter generation failed on 2x10G IM
CSCuo89742	Multiple re-configuration of PTP suddenly breaks punt path
CSCus08006	Ingress policer is not working when same policy is attached @ the egress
CSCus45613	QOS THS - Excess QOS TCAM entries incremented for 1 ACL with CoPPP
CSCur36711	EPN::ASR920/RSP2 ARP (untagged) packet drop over PE-HE tunnel from ASR9K
CSCuq21575	ASR-920-10SZ-PD: Port 8 LED continously blinking GREEN when no traffic
CSCuq75658	ASR-920-12CZ: Link status is UP on speed mismatch
CSCur70280	ASR920-System shut down and PSU led issues with fan tray and fan failure
CSCus90713	ASR920//Ports not coming up with supported SFP's.
CSCur49429	Crash on "show platform hardware pp active feature debug conditions"

Identifier	Description
CSCur49812	Dual rate Ports are not coming up between ASR901 and ASR 920i in 1G mode
CSCuq51844	Management interface remains down after reload
CSCur94301	legacy ethernet IMs & TDM IM having ACT1/quack chips going OOS
CSCuq75527	System not shut down on more than one fan failure
CSCuq64044	IPv6/IPv4 ping not working in the latest MCP
CSCuq87532	Current calculation
CSCuq28318	Syslog Messages are not generated after one FAN Failure
CSCum47925	RSP2/RSP1:SSO convergence time of ~0.9 sec with 100m SFP.
CSCup93720	Link Alarms are not persistent after reload on the combo CU IM

Open Caveats—Cisco IOS XE Release 3.14.3S

Identifier	Description
CSCux12690	VPLS: Split-horizon fails when MAC MOV btw PWs in same VPLS domain
CSCuu30375	ASR920:Soak:RSP2A-64 and RSP2A-128_mgr Crash on FRR cutover on IP Routes Flaps
CSCuu76482	Cos Marking for LDP packets not set

Resolved Caveats—Cisco IOS XE Release 3.14.3S

Identifier	Description
CSCuu36976	VPLS traffic is not taking correct route while sending the traffic out
CSCuv88627	illegal 4 byte write RSP2A-64 and RSP2A-128_create_bfd_oamengine_path when router boot up
CSCuu01000	ASR920 - cfm mep domain command causing connectivity issue
CSCuv46278	valgrind: local datastructure was allocated twice for ELB FID
CSCut50324	mac learning stopped on BD and start flooding the packet
CSCuv83498	STATIC EAID DUPLICATE CREATION ATTEMPT error seen on config-replace
CSCuv77921	ASR920 doesn't allow the dhcp packet to be parsed with option 82.
CSCut97251	router crash @ nl2mcm_igmp_snooping_enable
CSCuu58725	ASR920 / Eth CFM PM, sends default domain level 7
CSCuv44538	Memory leak due to EFP policer on ASR 920
CSCut91272	service-policy is disappears after reload
CSCuu00644	ZTP service instance config failed to apply on Tengig interface
CSCuv11211	Temp raise syslog msg prints on console when PSU remove and insertion
CSCuu80848	IOSXE_INFRA-6-PROCPATH_CLIENT_HOG message, while OIR of FAN
CSCuu10641	all the interfaces are admin down state after router upgrade

Identifier	Description
CSCuv35142	IM1X IM interfaces are admin down state after router upgrade
CSCuv01055	ASR 920 - Remote Ping is not working on Ten gig port with Extended Vlan
CSCuv61769	parser config cache interface adds shutdown to the interface config
CSCuw50214	PID not displayed in third party optics

Open Caveats—Cisco IOS XE Release 3.14.2S

Identifier	Description
CSCut33723	Error counters are incremented on ports that are down.
CSCuu10641	All the interfaces are in the admin down state after a router upgrade.

Resolved Caveats—Cisco IOS XE Release 3.14.2S

Identifier	Description
CSCut28876	xconnect uni-directional traffic when new xconnect is built or moved.
CSCus97020	The router crashes on configuring Ethernet loopback.
CSCur82708	Egress policy not working after removing and recreating PC.
CSCut88397	RSP2: Egress exp classification not working as expected.
CSCut26934	CEM-ACR CEMoUDP: IOSd crash after reload.
CSCus94994	False power, voltage and bias THRESHOLD_VIOLATION alarms for BX10-U.
CSCut38645	No traffic passing through Tengig 12 and 13 connected "SFP-GE-T".
CSCur29027	32T1E1: Ping failure observed on second multilink interface.

Open Caveats—Cisco IOS XE Release 3.14.1S

Bug ID	Headline
CSCus60755	The router crashes due to Memory Leak
CSCur82708	Egress policy not working after removing and recreating PC
CSCus92763	The **show pla hard fea cef** command sometimes does not show correct output interface.

Resolved Caveats—Cisco IOS XE Release 3.14.1S

Bug ID	Headline
CSCur58364	L4 classification fails on L3 PC after reload followed by shut/no-shut
CSCur53804	8 PortT1E1 IM, port LED is Amber when all ports are UP
CSCur37988	Allow only 2k vlans on Trunk efp
CSCuq93384	The router crashes on starting ELB session in unsupported version
CSCur93885	DHCP snooping for tagged packets fail
CSCus06289	ELB configured with "re-write pop" loops back traffic without VLAN tag.
CSCus37301	Flex-Link results in failure of Local SPAN
CSCus11993	mapd / emapd not created
CSCur27714	Traffic issue when RSPAN BD is configured on both TEFP and EFP
CSCur54256	ZTP button press to wr erase and reload the box
CSCup86782	RSP2A-64 and RSP2A-128_mgr crash was observed with soak testing
CSCus34567	ICMP ipv6 packets with 5 and 6th octet of src addr as 806 dropped in 920
CSCur28664	REP flaps with IGMP snooping & joins/leaves burst
CSCuq63591	mrouter port is not flushed after a G.8032 switchover
CSCus03459	LBM packet is getting dropped with CFM_PM configs and SSFP ports
CSCuq37233	Jitter generation failed on 2x10G IM
CSCus08006	Ingress policer is not working when same policy is attached at the egress
CSCus45613	QOS THS - Excess QOS TCAM entries incremented for 1 ACL with CoPPP
CSCup89461	Activated Cu IM should disable the ports 0/0/16 through 0/0/23.
CSCur63623	For RJ45 ports Object entPhysicalClass populate as container
CSCus10131	Object entPhysicalClass populate as a container for RJ45 ports
CSCus28477	12x1 License status missing on the Cisco ASR920-24SZ-M router.
CSCur70280	System shut down and PSU led issues with fan tray and fan failure
CSCus90713	Ports not coming up with supported SFPs.
CSCur31283	IM activate option present in F2 box
CSCur49429	Crash on **show platform hardware pp active** feature debug conditions.
CSCur56654	Failed access or process an IDPROM and traceback seen during bootup
CSCur78658	Dual rotor Fan failure considered as Multiple Fan failure
CSCur94301	Legacy Ethernet IMs and TDM IM having ACT1/quack chips going OOS
CSCus19517	Gig/TenGig interfaces are missing
CSCuq94696	Power down the system when temperature sensors reach threshold value
CSCuq87532	Current calculation

Open Caveats—Cisco IOS XE Release 3.14S

Bug	Headline
CSCup89461	Activated Cu IM should disable the ports 0/0/16 through 0/0/23.
CSCuq37233	Jitter generation failed on 2x10G IM.
CSCur28664	REP flaps with IGMP snooping and joins/leaves burst.
CSCur50170	GLC-ZX-SM-RGD SFP from vendor SUMITOMO DOM status is not correct.
CSCur80086	For Layer 2 Protocol Tunneling (L2PT) forward, reserved MAC address must be present.
CSCus28477	12x1GE License status is missing in the Cisco ASR-920-24SZ-M router.

Resolved Caveats—Cisco IOS XE Release 3.14S

Bug	Headline
CSCun27801	High LACP on convergence time is observed.
CSCun83565	ARP packets with EVC push fails to pass through when DAI is enabled.
CSCuo01127	The MTU value is saved in the interface configuration even though the MTU_ALLOC_FAIL message is displayed.
CSCuo18471	Dual rate port operating in 1G mode is not administratively up.
CSCuo21413	With AMS mode, issue is seen in changing media type in a particular case.
CSCuo25622	CFM and L2PT do not work concurrently.
CSCuo40665	G8032: 1s converge on sending bidirectional traffic.
CSCuo56277	Giant counters do not increment on Ten Gigabitethernet interface.
CSCuo86851	When a fan fails, speed of other fans does not increase to 100%.
CSCup12288	On the Cisco ASR-920-10SZ-PD, software BFD sessions are not UP.
CSCup12493	The EFPs on a port may go into STP blocked state.
CSCup29102	LFA FRR high convergence is observed.
CSCup42572	Unknown file download messages are displayed on the console with the following logs: `%Error opening tftp://255.255.255.255/00_3A_99_FD_4A_8C_CFG (Timed out)`
CSCup52507	USB file names are converted to uppercase when system is in ROMmon prompt.
CSCup65786	Expired errors for MAXRUN timer are displayed on the console.
CSCup67271	Match_EFP egress policy map replication does not happen on memory links.
CSCup68853	Traceroute is not correct if MIP is present on an EFP with rewrite POP CFG.
CSCup77638	ZTP does not work on non-default-licensed ports.
CSCup79363	A linux_iosd-image crash is observed with commit replace.
CSCup82132	RMEPs do not establish with default encapsulation.
CSCup91114	PTP packets are dropped in MPLS PHP node.
CSCup91436	License features are deactivated when the smart license state is expired.

Bug	Headline
CSCup93649	Fan issues.
CSCup97081	Cisco ASR 920 Series routers should have a unique sysObjectID (sysOID).
CSCup98463	RMEPs not learnt on C-UNI and S-UNI ports.
CSCuq09238	The CWDM or DWDM-SFP does not trigger the EEM script when it is installed in the Dual Rate port.
CSCuq23873	Formatting the Flash / bootflash file system fails.
CSCuq28212	Fan alarms and traps are not generated when a fan fails.
CSCuq28318	Syslog messages are not generated after a fan fails.
CSCuq37604	REP Topology Flaps are observed when MAC-Address max limits exceed.
CSCuq67100	Gigabit Ethernet interface 0/0/8 and 0/0/9 are not coming up when connected to a particular vendor.
CSCur15280	Traceroute fails for LMM with EVC BD double tag

Open Caveats—Cisco IOS XE Release 3.13.9S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.13.9S

Caveat ID Number	Description
CSCuz58099	Load balance is not done for the packets which has MPLS headers

Open Caveats—Cisco IOS XE Release 3.13.7S

Caveat ID Number	Description
CSCuq51844	Management interface remains down after reload
CSCur31283	ASR920: IM activate option present in F2 box
CSCvb61075	ASR920: Dual-rate EEM errors out when hostname has a dot '.' character

Resolved Caveats—Cisco IOS XE Release 3.13.7S

Caveat ID Number	Description
CSCut74305	NO_PUNT_KEEPALIVE and Kernel message on console leading to system crash
CSCva87757	Few third party SFP's not detected upgrade from 3.14.1 to 3.16.3
CSCvc09556	XE3.18_SP:Snooping with relay not happening with ingress as PC & efp's on both ingress & egress

Open Caveats—Cisco IOS XE Release 3.13.6S

There are no open caveats in this release.

Resolved Caveats—Cisco IOS XE Release 3.13.6S

Caveat ID Number	Description
CSCux07929	The Cisco ASR 920-4SZ-A/D and ASR 920-12CZ-A/D Router crashes on disabling of cross-connect and enabling of VPLS for same SI.

Open Caveats—Cisco IOS XE Release 3.13.4S

Identifier	Description
CSCur31283	IM activate option present in F2 box

Resolved Caveats—Cisco IOS XE Release 3.13.4S

Identifier	Description
CSCuu17435	RSP2A-64 and RSP2A-128 mgr crash in RSP2 upon appling L3 acl on EVC and EVC in PC
CSCuv37358	Stale TCAM after removing BDI with ACL and reconfiguring
CSCuu36976	VPLS traffic is not taking correct route while sending the traffic out
CSCuu27902	CCMs on port channel member getting punted with port channel IDB
CSCut55709	cfm_mp_ifh OBJ-DWNLD failure while reload the router
CSCur53762	DHCP Option 43 does not work with ZTP due to startup-config
CSCuv00831	Failure@to match local dying gasp on Ethernet line card
CSCut05566	Few A periodic REP Flaps observed in scaled test-bed

Identifier	Description
CSCut50324	mac learning stopped on BD and start flooding the packet
CSCut50374	traceback seen when we list the secure mac-address which belongs to BD
CSCuu58725	ASR920 / Eth CFM PM, sends default domain level 7
CSCur47956	PTP BMCA stream not deleted after "no clock source"
CSCuu76482	Cos Marking for LDP packets not set
CSCuu52410	Match-all class with multi-match works when added in a specific sequence
CSCut91272	service-policy is disappears after reload
CSCuv01055	ASR 920 - Remote Ping is not working on Ten gig port with Extended Vlan
CSCuv07771	ASR920:Incorrect error message displayed while try to load wrong ROMMON
CSCut64494	configuring EFP immediately after media type change makes EFP down
CSCuq62491	Convergence more than 12 sec observed during mlacp D failure

Open Caveats—Cisco IOS XE Release 3.13.3S

Identifier	Description
CSCus82338	In loose mode uRPF IPv4/6 traffic is not dropped for NUll0 interface

Resolved Caveats—Cisco IOS XE Release 3.13.3S

Identifier	Description
CSCus60787	ACL counter does not work when applying IPv6 ACL to BDI interface on egress.
CSCut40156	IPV6 ACL causes LDP down and OSFP flap.
CSCut28876	xconnect uni-directional traffic when new xconnect built or moved.
CSCut03279	OC12/3: Forwarding alarm for CESOP does not propagate.
CSCus97020	The router crashes on configuring Ethernet loopback.
CSCur83200	Policy on encapsulation default not working.
CSCus60755	The router crashes due to memory leak.
CSCur77326	TenGig interface remains down with EVC configuration.
CSCus62460	BGP flap when Ping is sent continuously at 18 mbps.
CSCus16433	Incorrect values in entSensorThresholdEvaluation for SPA subslot sensors.
CSCus65819	SBB: ACL deny command does not drop the OSPF and PIM packets.
CSCus98172	GLC-EX-SMD	%SFF8472-3-THRESHOLD_VIOLATION
CSCup71022	WANPHY: incorrect behavior with L-RDI and UNEQ-P alarm inject.

Open Caveats—Cisco IOS XE Release 3.13.2S

Bug	Headline
CSCus34567	ICMP ipv6 packets with 5 and 6th octet of src addr as 806 dropped in ASR 920.

Resolved Caveats—Cisco IOS XE Release 3.13.2S

Bug	Headline
CSCuq23641	ASR 920:Input errors reported on ports with CU SFP operating at10M speed.
CSCuq94696	Power down when temp sensors reach threshold value.
CSCur49812	Dual rate Ports are not coming up between MW -ASR 920 in 1G mode.
CSCus34567	ICMP IPv6 packets with 5 and 6th octet of src addr as 806 dropped in ASR 920.

Open Caveats—Cisco IOS XE Release 3.13.1S

Bug	Headline
CSCup82132	RMEPs do not establish connection with default encapsulation.
CSCup98463	The RMEPs values is not learnt on C-UNI and S-UNI ports.
CSCuq37604	REP topology flaps are observed when the MAC address maximum limits are exceeded.
CSCuq67100	The gi0/0/8 and gi0/0/9 interfaces do not come up.
CSCur15280	Trace route fails for LMM with EVC bridge domain double-tag.
CSCur80086	For Layer 2 Protocol Tunneling (L2PT) forward, reserved MAC address must be present.

Resolved Caveats—Cisco IOS XE Release 3.13.1S

Bug	Headline
CSCuo21413	With AMS mode, the issue is seen in changing media type, in some cases.
CSCup80051	Attributes of Port Channel members (100Mbps) are not correct after a reload.
CSCup98767	A continuous flood of messages are displayed on the console.
CSCuq14763	Line Proto is administratively down for 100M SFP's after the process iomd crashes.

Open Caveats—Cisco IOS XE Release 3.13S

Bug	Headline
CSCun27801	High LACP on convergence time is observed.
CSCuo01127	The MTU value is saved in the interface configuration even though the MTU_ALLOC_FAIL message is displayed.
CSCuo18471	Dual rate port operating in 1G mode is not administratively up.
CSCuo21413	With AMS mode, issue seen in changing media type in a particular case
CSCuo56277	Giant counters do not increment on Ten Gigabitethernet interface.
CSCup12493	The EFPs on a port may go into STP blocked state.
CSCup29102	LFA FRR high convergence is observed.
CSCup42572	Unknown file download messages are displayed on the console with the following logs: `%Error opening tftp://255.255.255.255/00_3A_99_FD_4A_8C_CFG (Timed out)`
CSCup52507	USB file names are converted to uppercase when system is in ROMmon prompt.
CSCup65786	Expired errors for MAXRUN timer are displayed on the console.
CSCup67271	Match_EFP egress policy map replication does not happen on memory links.
CSCup77638	ZTP does not work on non-default-licensed ports.
CSCup79363	A linux_iosd-image crash is observed with commit replace.
CSCup91114	PTP packets are dropped in MPLS PHP node
CSCup91436	License features are deactivated when the smart license state is expired.
CSCuq09238	The CWDM or DWDM-SFP does not trigger the EEM script when it is installed in the Dual Rate port.