



## **Release Notes for Cisco ASR 900 Series Routers, Cisco IOS XE Everest 16.6.x**

**First Published:** 2017-07-31

**Last Modified:** 2020-04-30

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## CONTENTS

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### CHAPTER 1

#### **Introduction** 1

|   |    |
|---|----|
| Overview of Cisco ASR 900 Series Routers                        | 1  |
| Cisco ASR 900 Series Router                                     | 1  |
| Cisco ASR 902 Router  | 2  |
| Cisco ASR 903 Router  | 2  |
| Cisco ASR 907 Router  | 2  |
| Feature Navigator   | 2  |
| Hardware Support  | 3  |
| Cisco ASR 902 Supported Interface Modules                       | 3  |
| A900-RSP2-Supported Interface Modules (ASR 902 Router)          | 3  |
| A900-RSP3C-200-S Supported Interface Modules (ASR 902 Router)   | 5  |
| Supported RSP and Interface Modules on the Cisco ASR 903 Router | 6  |
| Supported RSP and Interface Modules on the Cisco ASR 907 Router | 9  |
| Feature Matrix  | 9  |
| Software Licensing Overview                                     | 9  |
| Determining the Software Version                                | 10 |
| Upgrading to a New Software Release                             | 10 |
| Supported FPGA Versions   | 11 |
| Supported FPGA Versions for Cisco IOS XE Everest 16.6.7 Release | 12 |
| MIB Support   | 13 |
| MIB Documentation   | 15 |

---

### CHAPTER 2

#### **New Features** 17

|  |    |
|--|----|
| New Hardware Features in Cisco IOS XE Everest 16.6.9 | 17 |
| New Software Features in Cisco IOS XE Everest 16.6.9 | 17 |
| New Hardware Features in Cisco IOS XE Everest 16.6.8 | 17 |

New Software Features in Cisco IOS XE Everest 16.6.8 18

New Hardware Features in Cisco IOS XE Everest 16.6.7 18

New Software Features in Cisco IOS XE Everest 16.6.7 18

New Hardware Features in Cisco IOS XE Everest 16.6.6 18

New Software Features in Cisco IOS XE Everest 16.6.6 18

New Hardware Features in Cisco IOS XE Everest 16.6.5 18

New Software Features in Cisco IOS XE Everest 16.6.5 18

New Hardware Features in Cisco IOS XE Everest 16.6.4 18

New Software Features in Cisco IOS XE Everest 16.6.4 18

New Software Features in Cisco IOS XE Everest 16.6.3 19

New Hardware Features in Cisco IOS XE Everest 16.6.1 19

New Software Features in Cisco IOS XE Everest 16.6.1 19

**CHAPTER 3**

**Caveats 25**

Cisco Bug Search Tool 26

Open Caveats – Cisco IOS XE Everest 16.6.9 26

Platform Independent Open Caveats – Cisco IOS XE Everest 16.6.9 26

Resolved Caveats – Cisco IOS XE Everest 16.6.9 27

Platform Independent Resolved Caveats – Cisco IOS XE Everest 16.6.9 27

Open Caveats – Cisco IOS XE Everest 16.6.8 27

Resolved Caveats – Cisco IOS XE Everest 16.6.8 28

Open Caveats – Cisco IOS XE Everest 16.6.7 28

    Open Caveats – Platform Independent 28

Resolved Caveats – Cisco IOS XE Everest 16.6.7 29

    Resolved Caveats - Platform Independent 29

Open Caveats – Cisco IOS XE Everest 16.6.6 31

Resolved Caveats – Cisco IOS XE Everest 16.6.6 31

Open Caveats – Cisco IOS XE Everest 16.6.5a 32

Resolved Caveats – Cisco IOS XE Everest 16.6.5a 33

Open Caveats – Cisco IOS XE Everest 16.6.4 34

Resolved Caveats – Cisco IOS XE Everest 16.6.4 35

Open Caveats – Cisco IOS XE Everest 16.6.3 36

Resolved Caveats – Cisco IOS XE Everest 16.6.3 38

Open Caveats – Cisco IOS XE Everest 16.6.2 39

|  |    |
|--|----|
| Resolved Caveats – Cisco IOS XE Everest 16.6.2 | 41 |
| Open Caveats – Cisco IOS XE Everest 16.6.1     | 43 |
| Resolve Caveats – Cisco IOS XE Everest 16.6.1  | 45 |

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**CHAPTER 4**      **Restrictions and Limitations**      **49**





# CHAPTER 1

## Introduction

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The Cisco ASR 900 Series Routers are full-featured, modular aggregation platforms designed for the cost-effective delivery of converged mobile, residential, and business services. This document provides information about the IOS XE software release for the Cisco ASR 900 Series Routers beginning with Release 16.6.1.

- [Overview of Cisco ASR 900 Series Routers](#) , on page 1
- [Feature Navigator](#), on page 2
- [Hardware Support](#) , on page 3
- [Feature Matrix](#), on page 9
- [Software Licensing Overview](#), on page 9
- [Determining the Software Version](#) , on page 10
- [Upgrading to a New Software Release](#) , on page 10
- [Supported FPGA Versions](#) , on page 11
- [MIB Support](#), on page 13

## Overview of Cisco ASR 900 Series Routers

The Cisco ASR 900 Series Router is a fully-featured routing platform designed for the cost-effective delivery of converged mobile and business services. With full redundancy, shallow depth, low power consumption and high service scale, this 3-rack-unit (3RU) router is optimized for small aggregation and remote point-of-presence (POP) applications. The Cisco ASR 900 Series Router provides a rich and scalable feature set of Legacy, Timing, Carrier Ethernet, Layer 2 VPN (L2VPN) and Layer 3 VPN (L3VPN) services in a compact package.

The Cisco ASR 900 Series Router is a fully modular platform with support for upto 6-Interface Modules (IMs), two Route Switch Processor (RSP) slots, two power supplies and redundant fans, based on the router model. Cisco offers a wide choice of LAN and WAN interfaces available in speeds ranging from nxDS0 to 10 Gigabit Ethernet. The design of the Cisco ASR 900 Series Router delivers in-box hardware redundancy for all hardware components and supports software redundancy with In Service Software Upgrade (ISSU) and Non-Stop Forwarding (NSF) support.

## Cisco ASR 900 Series Router

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## Cisco ASR 902 Router

The Cisco ASR 902 Router is a full-featured aggregation platform designed for cost-effective delivery of converged mobile and business services. With shallow depth, low power consumption, and an extended temperature range, this compact 2-rack unit (2RU) router provides high service scale and flexible hardware configuration.

## Cisco ASR 903 Router

The Cisco ASR 903 Series Aggregation Services Router is a Cisco aggregation router product. This router uses an innovative and powerful forwarding technology known as the Cisco Carrier Ethernet ASIC.

The Cisco ASR 903 Series Router is a 6-Interface Module (IM), 3-RU, hardware-redundant chassis with two Route Switch Processor (RSP) slots, and six IM slots. It supports fully redundant RSPs that allow for full RSP hardware redundancy, NSF, ISSU, and future RSP service upgrades.

## Cisco ASR 907 Router

The Cisco ASR 907 Router seven-rack (7RU) unit router that belongs to the Cisco ASR90x family of routers. This router complements Cisco's offerings for IP RAN solutions for the GSM, UMTS, LTE and CDMA. Given its form-factor, interface types and Gigabit Ethernet density the Cisco ASR 907 Router can also be positioned as a Carrier Ethernet aggregation platform.

The Cisco ASR 907 Router is a cost optimized, fully redundant, centralized forwarding, extended temperature, and flexible pre-aggregation router.

## 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.



# Hardware Support

## Cisco ASR 902 Supported Interface Modules

### A900-RSP2-Supported Interface Modules (ASR 902 Router)

Table 1: A900-RSP2-Supported Interface Modules and Part Numbers

| RSP                               | Interface Modules  | Part Numbers     | Slots |
|-----------------------------------|--|------------------|-------|
| A900-RSP2A-128<br>A900U-RSP2A-128 | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)   | A900-IMA8S       | All   |
|                                   | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE)   | A900-IMA8T       |       |
|                                   | 1-port 10-Gigabit Ethernet XFP Interface Module (1x10GE)   | A900-IMA1X       |       |
|                                   | 16-port T1/E1 Interface Module   | A900-IMA16D      |       |
|                                   | 4-port OC3/STM-1 (OC-3) or 1-port OC12/STM-4 (OC-12) Interface Module                                  | A900-IMA4OS      |       |
|                                   | SFP Combo IM—8-port Gigabit Ethernet (8x1GE) +<br>1-port 10-Gigabit Ethernet (1x10GE)                  | A900-IMA8S1Z     |       |
|                                   | Copper Combo IM—8-port Gigabit Ethernet (8x1GE) + 1-port 10-Gigabit Ethernet Interface Module (1x10GE) | A900-IMA8T1Z     |       |
|                                   | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)   | A900-IMA2Z       |       |
|                                   | 14-port Serial Interface Module  | A900-IMASER14A/S |       |

| RSP                             | Interface Modules   | Part Numbers     | Slots      |
|---------------------------------|---|------------------|------------|
|                                 | 4-port C37.94 Interface Module  | A900-IMA4C3794   |            |
| A900-RSP2A-64<br>A900U-RSP2A-64 | 1-port 10 Gigabit Ethernet XFP Interface Module (1x10GE)              | A900-IMA1X       | 0-2        |
|                                 | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)                  | A900-IMA2Z       |            |
|                                 | 4-port OC3/STM-1 (OC-3) or 1-port OC12/STM-4 (OC-12) Interface Module | A900-IMA4OS      |            |
|                                 | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)                  | A900-IMA8S       | 0, 2 and 3 |
|                                 | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE)        | A900-IMA8T       |            |
|                                 | 16-port T1/E1 Interface Module  | A900-IMA16D      |            |
|                                 | 32-port T1/E1 Interface Module  | A900-IMA32D      |            |
|                                 | 8-port T1/E1 Interface Module   | A900-IMA8D       |            |
|                                 | 6-port E & M Interface Module   | A900-IMA6EM      |            |
|                                 | 14-port Serial Interface Module                                       | A900-IMASER14A/S |            |
|                                 | 4-port C37.94 Interface Module  | A900-IMA4C3794   |            |

## A900-RSP3C-200-S Supported Interface Modules (ASR 902 Router)

**Table 2: A900-RSP3C-200 Supported Interface Modules and Part Numbers**

| RSP Module       | Supported Interface Modules  | Part Numbers | Slot             |
|------------------|--|--------------|------------------|
| A900-RSP3C-200-S | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)   | A900-IMA8S   | All <sup>1</sup> |
|                  | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE)   | A900-IMA8T   |                  |
|                  | 1-port 10 Gigabit Ethernet XFP Interface Module (1x10GE)   | A900-IMA1X   | 0 and 1          |
|                  | SFP Combo IM—8-port Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet (1x10GE)                     | A900-IMA8S1Z | All              |
|                  | Copper Combo IM—8-port Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet Interface Module (1x10GE) | A900-IMA8T1Z |                  |
|                  | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)   | A900-IMA2Z   |                  |
|                  | 8-port 10 Gigabit Ethernet Interface Module (8x10GE)   | A900-IMA8Z   | 0                |
|                  | 2-port 40 Gigabit Ethernet QSFP Interface Module (2x40GE)  | A900-IMA2F   |                  |

<sup>1</sup> There are restrictions using the interface modules in different slots with RSP3 module. Contact Cisco Sales/Support for the valid combinations..

## Supported RSP and Interface Modules on the Cisco ASR 903 Router

*Table 3: A900-RSP2 Supported Interface Modules and Part Numbers*

| RSP Module                     | Supported Interface Modules  | Part Numbers     | Slot |
|--------------------------------|--|------------------|------|
| A900-RSP2A-128                 | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)   | A900-IMA8S       | All  |
|                                | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE)   | A900-IMA8T       |      |
|                                | 1-port 10 Gigabit Ethernet XFP Interface Module (1x10GE)   | A900-IMA1X       |      |
|                                | 16-port T1/E1 Interface Module   | A900-IMA16D      |      |
|                                | 32-port T1/E1 Interface Module   | A900-IMA32D      |      |
|                                | 8-port T1/E1 Interface Module  | A900-IMA8D       |      |
|                                | 4-port OC3/STM-1 (OC-3) or 1-port OC12/STM-4 (OC-12) Interface Module  | A900-IMA4OS      |      |
|                                | SFP Combo IM—8-port SFP Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet (1x10GE)                             | A900-IMA8S1Z     |      |
|                                | Copper Combo IM—8-port 10/100/1000 Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet Interface Module (1x10GE) | A900-IMA8T1Z     |      |
|                                | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)   | A900-IMA2Z       |      |
|                                | 6-port E & M Interface Module  | A900-IMA6EM      |      |
|                                | 14-port Serial Interface Module  | A900-IMASER14A/S |      |
| 4-port C37.94 Interface Module | A900-IMA4C3794   |                  |      |

| RSP Module   | Supported Interface Modules   | Part Numbers | Slot |
|--|---|--------------|------|
| A900-RSP2A-64  | 1-port 10 Gigabit Ethernet XFP Interface Module (1x10GE)              | A900-IMA1X   | 0-2  |
|  | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)                  | A900-IMA2Z   |      |
|  | 4-port OC3/STM-1 (OC-3) or 1-port OC12/STM-4 (OC-12) Interface Module | A900-IMA4OS  |      |
|  | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)                  | A900-IMA8S   |      |
| 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE) | A900-IMA8T  |              |      |
| 16-port T1/E1 Interface Module                                 | A900-IMA16D   |              |      |
| 32-port T1/E1 Interface Module                                 | A900-IMA32D   |              |      |
| 8-port T1/E1 Interface Module                                  | A900-IMA8D  |              |      |
| 6-port E & M Interface Module                                  | A900-IMA6EM   |              |      |
| 14-port Serial Interface Module                                | A900-IMASER14A/S  |              |      |
| 4-port C37.94 Interface Module                                 | A900-IMA4C3794  |              |      |



**Note** The combination IMs (A900-IMA8S1Z, A900-IMA8T1Z) are not supported on the A900-RSP2-64 RSP module on the Cisco ASR 900 Series Router.

Table 4: A900-RSP3C-400 Supported Interface Modules and Part Numbers

| RSP Module       | Supported Interface Modules  | Part Numbers | Slot             |
|------------------|--|--------------|------------------|
| A900-RSP3C-400-S | 8-port Gigabit Ethernet SFP Interface Module (8x1GE)   | A900-IMA8S   | All <sup>2</sup> |
|                  | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8x1GE)   | A900-IMA8T   |                  |
|                  | 1-port 10 Gigabit Ethernet XFP Interface Module (1x10GE)   | A900-IMA1X   |                  |
|                  | SFP Combo IM—8-port SFP Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet (1x10GE)                             | A900-IMA8S1Z |                  |
|                  | Copper Combo IM—8-port 10/100/1000 Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet Interface Module (1x10GE) | A900-IMA8T1Z |                  |
|                  | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)   | A900-IMA2Z   |                  |
|                  | 8-port 10 Gigabit Ethernet Interface Module (8x10GE)   | A900-IMA8Z   |                  |
|                  | 1-port 100 Gigabit Ethernet Interface Module (1x100GE)   | A900-IMA1C   | 4 and 5          |
|                  | 2-port 40 Gigabit Ethernet QSFP Interface Module (2x40GE)  | A900-IMA2F   | 4 and 5          |

<sup>2</sup> There are restrictions using the interface modules in different slots with RSP3 module. Contact Cisco Sales/Support for the valid combinations.

## Supported RSP and Interface Modules on the Cisco ASR 907 Router

Table 5: A900-RSP3 Supported Interface Modules and Part Numbers

| RSP Module       | Interface Modules  | Part Number     | Slot                            |
|------------------|--|-----------------|---------------------------------|
| A900-RSP3C-400-W | 8-port Gigabit Ethernet SFP Interface Module (8X1GE)   | A900-IMA8S      | 0,1,2,5,6,9,10,13,14,15         |
|                  | 8-port Gigabit Ethernet RJ45 (Copper) Interface Module (8X1GE)   | A900-IMA8T      | 0,1,2,5,6,9,10,13,14,15         |
|                  | SFP Combo IM—8-port Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet (1x10GE)                     | ASR900-IMA8S1Z  | 2,5,6,9,10,13,14,15             |
|                  | Copper Combo IM—8-port Gigabit Ethernet (8x1GE) + 1-port 10 Gigabit Ethernet Interface Module (1x10GE) | ASR900-IMA8T1Z  | 2,5,6,9,10,13,14,15             |
|                  | 2-port 10 Gigabit Ethernet Interface Module (2x10GE)   | ASR900-IMA2Z    | 3,4,7,8,11,12                   |
|                  | 1-port 100 Gigabit Ethernet Interface Module (1x100GE)   | A900-IMA1C      | 7,8                             |
|                  | 2-port 40 Gigabit Ethernet QSFP Interface Module (2x40GE)  | A900-IMA2F      | 3,4,7,8,11,12                   |
|                  | 8-port 10 Gigabit Ethernet Interface Module (8x10GE)   | A900-IMA8Z      | 3,4,7,8,11,12                   |
|                  | OC-192 Interface Module with 8-port Low Rate CEM Interface Module (10G HO/10G LO)                      | A900-IMA8S1Z-CX | 3,4,7,8,11,12                   |
|                  | 48XT1/E1 Interface module  | A900-IMA48D-C   | 0,1,2,3,4,5,6,7,8,9,10,13,14,15 |
|                  | 48XT3/E3 Interface module  | A900-IMA48T-C   | 0,1,2,3,4,5,6,7,8,9,10,13,14,15 |

## Feature Matrix

The feature matrix lists the features that are supported for each platform. For more information, see the cumulative [Feature Compatibility Release Matrix](#) on the Content Hub.

## Software Licensing Overview

The router offers the following base licenses:

- Metro Services
- Metro IP Services
- Metro Aggregation Services

Table 6: Cisco ASR 900 Software Licenses Feature Set

| Metro Services   | Metro IP Services  | Metro Aggregation Services                        |
|--|--|---|
| —  | Includes all features in Metro Services  | Includes all features in Metro IP Services        |
| QoS, with deep buffers and hierarchical QoS (HQoS)                 | IP routing (RIP, OSPF, EIGRP, BGP, IS-IS)  | MPLS (LDP and VPN)                                |
| Layer 2: 802.1d, 802.1q  | PIM (SM, DM, SSM), SSM mapping   | MPLS TE and FRR                                   |
| Ethernet Virtual Circuit (EVC)                                     | BFD  | MPLS OAM  |
| Ethernet OAM (802.1ag, 802.3ah)                                    | Multi-VRF CE (VRF lite) with service awareness (ARP, ping, SNMP, syslog, trace-route, FTP, TFTP) | MPLS-TP   |
| Multiple Spanning Tree (MST) and Resilient Ethernet Protocol (REP) | IEEE 1588-2008 Ordinary Slave Clock and Transparent Clock  | Pseudowire emulation (EoMPLS, CESoPSN, and SAToP) |
| Synchronous Ethernet   | —  | VPLS and HVPLS                                    |
| IPv4 and IPv6 host connectivity                                    | —  | Pseudowire redundancy                             |
| —  | —  | MR-APS and mLACP                                  |

The router offers the following additional feature licenses:

- ATM
- IEEE 1588-2008 Boundary Clock/Master Clock
- OC-overview- Port License



**Note** These features require a software license to use.

## Determining the Software Version

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

- Consolidated Package—**show version**
- Individual sub-packages—**show version installed** (lists all installed packages)

## Upgrading to a New Software Release

Only Cisco IOS XE Everest 16.6.1 consolidated packages can be downloaded from Cisco.com; users who want to run the router using individual subpackages must first download the image from Cisco.com and extract the individual subpackages from the consolidated package.



For information about upgrading to a new software release, see the [Cisco ASR 900 Series Router Configuration Guide](#).

### ROMMON Version

We recommend you to upgrade the ROMMON version to 15.6(20r)S.

For more information on the ROMMON package, see [Cisco Software Download](#).

### ROMMON Version for Cisco IOS XE Everest 16.6.7

The below table lists the ROMMON versions supported for ASR 900 series routers in the Cisco IOS XE Everest 16.6.7 Release.

**Table 7: ROMMON Versions for Cisco IOS XE Everest 16.6.7**

| Gigabit Ethernet Interface Module | ROMMON Version |
|-----------------------------------|----------------|
| A900-IMA2Z                        | 15.6(30r)S     |
| A900-IMA8S                        |                |
| A900-IMA8T1Z                      |                |
| A900-IMA1C                        | 15.6(33r)S     |
| A900-IMA8Z                        |                |
| A900-IMA8S1Z                      |                |
| A900-IMA1C                        | 15.6(33r)S     |
| A900-IMA2Z                        |                |

## Supported FPGA Versions

Use the show hw-module all fpd command to display the FPGA version on the router.

The below table lists the FPGA version for the software releases.



**Note** If there is an FPGA upgrade during ISSU, it will cause traffic disruption. TDM interface modules get reset irrespective of FPGA upgrade during the ISSU.

Table 8: IM FPGA Versions for all Ethernet Phase 1 and Phase 2 IMs

| Cisco IOS XE Release | Gigabit Ethernet Interface Module (Phase 1) FPGA  | Gigabit Ethernet Interface Module (Phase 2) FPGA  | TDM Interface Module FPGA | RSP2 Module HoFPGA |
|----------------------|---|---|---------------------------|--------------------|
| 16.6.1               | <ul style="list-style-type: none"> <li>• A900-IMA2Z<br/>— 0.47</li> <li>• A900-IMA8T /<br/>A900-IMA8S<br/>— 0.47</li> </ul> | <ul style="list-style-type: none"> <li>• A900-IMA2Z<br/>— 69.22</li> <li>• A900-IMA8T /<br/>A900-IMA8S<br/>— 69.24</li> </ul> | —                         | 0X00030005         |

Table 9: CEM FPGA Versions

| Cisco IOS XE Release | 48 X T1/E1 CEM Interface Module FPGA | 48 X T3/E3 CEM Interface Module FPGA | OC-192 Interface Module + 8-port Low Rate Interface Module FPGA |
|----------------------|--------------------------------------|--------------------------------------|---|
| 16.6.1               | 0x46310046                           | 0x46310046                           | 5G mode: 0x10070059<br>10G mode: 0x10050073                     |

Table 10: IM FPGA Versions for ASR 903 RSP3 and ASR 907

| Cisco IOS XE Release | IO FGPA | 8 x10 FPGA | 2x40 FPGA | 1x100 FPGA |
|----------------------|---------|------------|-----------|------------|
| 16.6.1               | 2.9     | 0.21       | 0.22      | 0.20       |

## Supported FPGA Versions for Cisco IOS XE Everest 16.6.7 Release

The below table lists the FPGA and HoFPGA versions for the Cisco IOS XE Everest 16.6.7 Release.

Table 11: FPGA and HoFPGA versions for Cisco IOS XE Everest 16.6.7 Release

| Gigabit Ethernet Interface Module | FPGA Version | Minimum Required FPGA Version | HoFPGA (Active and Standby) |
|-----------------------------------|--------------|-------------------------------|-----------------------------|
| A900-IMA2Z                        | 69.22        | 69.22                         | 0X000A0008                  |
| A900-IMA8S                        | 0.49         | 0.47                          |                             |
| A900-IMA8T1Z                      | 69.24        | 69.24                         |                             |
| A900-IMA1C                        | 0.2          | 0.2                           | 40024                       |
| A900-IMA8Z                        | 0.22         | 0.21                          |                             |
| A900-IMA8S1Z                      | 69.24        | 69.24                         |                             |
| A900-IMA1C                        | 0.2          | 0.19                          | 20040024                    |
| A900-IMA2Z                        | 69.22        | 69.22                         |                             |

# MIB Support

The below table summarizes the supported MIBs on the Cisco ASR 900 Series Router.

**Table 12: Supported MIBs**

| Supported MIBs                  |                              |                                    |
|---------------------------------|------------------------------|------------------------------------|
| BGP4-MIB (RFC 1657)             | CISCO-IMAGE-LICENSE-MGMT-MIB | MPLS-LDP-STD-MIB (RFC 3815)        |
| CISCO-BGP-POLICY-ACCOUNTING-MIB | CISCO-IMAGE-MIB              | MPLS-LSR-STD-MIB (RFC 3813)        |
| CISCO-BGP4-MIB                  | CISCO-IPMROUTE-MIB           | MPLS-TP-MIB                        |
| CISCO-BULK-FILE-MIB             | CISCO-LICENSE-MGMT-MIB       | MSDP-MIB                           |
| CISCO-CBP-TARGET-MIB            | CISCO-MVPN-MIB               | NOTIFICATION-LOG-MIB (RFC 3014)    |
| CISCO-CDP-MIB                   | CISCO-NETSYNC-MIB            | OSPF-MIB (RFC 1850)                |
| CISCO-CEF-MIB                   | CISCO-OSPF-MIB               | OSPF-TRAP-MIB (RFC 1850)           |
| CISCO-CLASS-BASED-QOS-MIB       | CISCO-OSPF-TRAP-MIB          | PIM-MIB (RFC 2934)                 |
| CISCO-CONFIG-COPY-MIB           | CISCO-PIM-MIB                | RFC1213-MIB                        |
| CISCO-CONFIG-MAN-MIB            | CISCO-PROCESS-MIB            | RFC2982-MIB                        |
| CISCO-DATA-COLLECTION-MIB       | CISCO-PRODUCTS-MIB           | RMON-MIB (RFC 1757)                |
| CISCO-EMBEDDED-EVENT-MGRMIB     | CISCO-PTP-MIB                | RSVP-MIB                           |
| CISCO-ENHANCED-MEMPOOL-MIB      | CISCO-RF-MIB                 | SNMP-COMMUNITY-MIB (RFC 2576)      |
| CISCO-ENTITY-ALARM-MIB          | CISCO-RTTMON-MIB             | SNMP-FRAMEWORK-MIB (RFC 2571)      |
| CISCO-ENTITY-EXT-MIB            | CISCO-SONET-MIB              | SNMP-MPD-MIB (RFC 2572)            |
| CISCO-ENTITY-FRU-CONTROLMIB     | CISCO-SYSLOG-MIB             | SNMP-NOTIFICATION-MIB (RFC 2573)   |
| CISCO-ENTITY-SENSOR-MIB         | DS1-MIB (RFC 2495)           | SNMP-PROXY-MIB (RFC 2573)          |
| CISCO-ENTITY-VENDORTYPE-OID-MIB | ENTITY-MIB (RFC 4133)        | SNMP-TARGET-MIB (RFC 2573)         |
| CISCO-FLASH-MIB                 | ENTITY-SENSOR-MIB (RFC 3433) | SNMP-USM-MIB (RFC 2574)            |
| CISCO-FTP-CLIENT-MIB            | ENTITY-STATE-MIB             | SNMPv2-MIB (RFC 1907)              |
| CISCO-IETF-ISIS-MIB             | EVENT-MIB (RFC 2981)         | SNMPv2-SMI                         |
| CISCO-IETF-PW-ATM-MIB           | ETHERLIKE-MIB (RFC 3635)     | SNMP-VIEW-BASED-ACM-MIB (RFC 2575) |
| CISCO-IETF-PW-ENET-MIB          | IF-MIB (RFC 2863)            | SONET-MIB                          |

|                        |                                     |                       |
|------------------------|-------------------------------------|-----------------------|
| CISCO-IETF-PW-MIB      | IGMP-STD-MIB (RFC 2933)             | TCP-MIB (RFC 4022)    |
| CISCO-IETF-PW-MPLS-MIB | IP-FORWARD-MIB                      | TUNNEL-MIB (RFC 4087) |
| CISCO-IETF-PW-TDM-MIB  | IP-MIB (RFC 4293)                   | UDP-MIB (RFC 4113)    |
| CISCO-IF-EXTENSION-MIB | IPMROUTE-STD-MIB (RFC 2932)         | CISCO-FRAME-RELAY-MIB |
| CISCO-IGMP-FILTER-MIB  | MPLS-LDP-GENERIC-STD-MIB (RFC 3815) | IF-MIB                |
| CISCO-AAA-SERVER-MIB   | —                                   | —                     |

Table 13: Unverified MIBs

| Unverified MIBs                 |                                       |                                 |
|---------------------------------|---------------------------------------|---------------------------------|
| ATM-MIB                         | CISCO-IETF-DHCP-SERVER-EXT-MIB        | EXPRESSION-MIB                  |
| CISCO-ATM-EXT-MIB               | —                                     | HC-ALARM-MIB                    |
| CISCO-ATM-IF-MIB                | CISCO-IETF-PPVPN-MPLS-VPN-MIB         | HC-RMON-MIB                     |
| CISCO-ATM-PVC-MIB               | CISCO-IP-STAT-MIB                     | IEEE8021-CFM-MIB                |
| CISCO-ATM-PVCTRAP-EXTN-MIB      | CISCO-IPSLA-ETHERNET-MIB              | IEEE8021-CFM-V2-MIB             |
| CISCO-BCP-MIB                   | CISCO-L2-CONTROL-MIB                  | IEEE8023-LAG-MIB                |
| CISCO-CALLHOME-MIB              | CISCO-LAG-MIB                         | INT-SERV-GUARANTEED-MIB         |
| CISCO-CIRCUIT-INTERFACE-MIB     | CISCO-MAC-NOTIFICATION-MIB            | INTEGRATED-SERVICES-MIB         |
| CISCO-CONTEXT-MAPPING-MIB       | CISCO-MEMORY-POOL-MIB                 | MPLS-L3VPN-STD-MIB (RFC 4382)   |
| CISCO-EIGRP-MIB                 | CISCO-NHRP-EXT-MIB                    | MPLS-LDP-ATM-STD-MIB (RFC 3815) |
| CISCO-ERM-MIB                   | CISCO-NTP-MIB                         | MPLS-LDP-MIB                    |
| CISCO-ETHER-CFM-MIB             | CISCO-PING-MIB                        | MPLS-TE-STD-MIB                 |
| CISCO-ETHERLIKE-EXT-MIB         | CISCO-RESILIENT-ETHERNET-PROTOCOL-MIB | MPLS-VPN-MIB                    |
| CISCO-EVC-MIB                   | CISCO-RTTMON-ICMP-MIB                 | NHRP-MIB                        |
| CISCO-HSRP-EXT-MIB              | CISCO-RTTMON-IP-EXT-MIB               | RFC2006-MIB (MIP)               |
| CISCO-HSRP-MIB                  | CISCO-RTTMON-RTP-MIB                  | RMON2-MIB (RFC 2021)            |
| CISCO-IETF-ATM2-PVCTRAP-MIB     | CISCO-SNMP-TARGET-EXT-MIB             | SMON-MIB                        |
| CISCO-IETF-ATM2-PVCTRAP-MIBEXTN | CISCO-TCP-MIB                         | VRRP-MIB                        |

|                            |                      |   |
|----------------------------|----------------------|---|
| CISCO-IETF-BFD-MIB         | CISCO-VRF-MIB        | — |
| CISCO-IETF-DHCP-SERVER-MIB | ETHER-WIS (RFC 3637) | — |

## MIB Documentation

The following resources provide more detail about MIBs on the Cisco ASR 900 Series Router:

- Cisco ASR 900 Series Router MIB Guide—For information about the Cisco ASR 903 Series Router product implementation of the MIB protocol, see *Cisco ASR 903 Series Aggregation Services Router MIB Specifications Guide* at the following location:

[http://www.cisco.com/c/en/us/td/docs/wireless/asr\\_900/mib/guide/asr903mib.html](http://www.cisco.com/c/en/us/td/docs/wireless/asr_900/mib/guide/asr903mib.html)

- MIB Locator—To locate and download MIBs for selected platforms, Cisco IOS and Cisco IOS XE releases, and feature sets, use Cisco MIB Locator found at the following location:

<http://tools.cisco.com/ITDIT/MIBS/servlet/index>





## CHAPTER 2

# New Features

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This chapter describes the new features supported on the Cisco IOS XE Everest 16.6.1.

- [New Hardware Features in Cisco IOS XE Everest 16.6.9, on page 17](#)
- [New Software Features in Cisco IOS XE Everest 16.6.9, on page 17](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.8, on page 17](#)
- [New Software Features in Cisco IOS XE Everest 16.6.8, on page 18](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.7, on page 18](#)
- [New Software Features in Cisco IOS XE Everest 16.6.7, on page 18](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.6, on page 18](#)
- [New Software Features in Cisco IOS XE Everest 16.6.6, on page 18](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.5, on page 18](#)
- [New Software Features in Cisco IOS XE Everest 16.6.5, on page 18](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.4, on page 18](#)
- [New Software Features in Cisco IOS XE Everest 16.6.4, on page 18](#)
- [New Software Features in Cisco IOS XE Everest 16.6.3, on page 19](#)
- [New Hardware Features in Cisco IOS XE Everest 16.6.1, on page 19](#)
- [New Software Features in Cisco IOS XE Everest 16.6.1, on page 19](#)

## **New Hardware Features in Cisco IOS XE Everest 16.6.9**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.9.

## **New Software Features in Cisco IOS XE Everest 16.6.9**

There are no new software features introduced for Cisco IOS XE Everest 16.6.9.

## **New Hardware Features in Cisco IOS XE Everest 16.6.8**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.8.

## **New Software Features in Cisco IOS XE Everest 16.6.8**

There are no new software features introduced for Cisco IOS XE Everest 16.6.8.

## **New Hardware Features in Cisco IOS XE Everest 16.6.7**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.7.

## **New Software Features in Cisco IOS XE Everest 16.6.7**

There are no new software features introduced for Cisco IOS XE Release 16.6.7.

## **New Hardware Features in Cisco IOS XE Everest 16.6.6**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.6.

## **New Software Features in Cisco IOS XE Everest 16.6.6**

There are no new software features introduced for Cisco IOS XE Release 16.6.6.

## **New Hardware Features in Cisco IOS XE Everest 16.6.5**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.5.

## **New Software Features in Cisco IOS XE Everest 16.6.5**

There are no new software features introduced for Cisco IOS XE Release 16.6.5.

## **New Hardware Features in Cisco IOS XE Everest 16.6.4**

There are no new hardware features introduced for Cisco IOS XE Everest 16.6.4.

## **New Software Features in Cisco IOS XE Everest 16.6.4**

There are no new software features introduced for Cisco IOS XE Release 16.6.4.



## New Software Features in Cisco IOS XE Everest 16.6.3

Card Protection for 48-port T1/E1 CEM Interface Module and 48-port T3/E3 CEM Interface Module

The card protection feature protects traffic when the interface module is out of service, a software failure occurs, or hardware issues are observed. Card protection is supported on primary and backup cards. Traffic is switched to the backup interface module when the primary interface module does not respond and vice versa. A new Y-cable is introduced to support the feature. The following maintenance commands are added in this release:

- lockout
- Force
- Manual



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**Note** This feature does not require any change in the patch panel of the interface modules.

---

For more information, see [Cisco ASR 900 Router Series Configuration Guide, Cisco IOS XE Fuji 16.7.x](#).

## New Hardware Features in Cisco IOS XE Everest 16.6.1

Following are the new hardware features:

- **Support for Cisco ASR 902U and ASR 903U routers**

The Cisco ASR 902U and ASR 903U Routers support the following RSPs:

- A900U-RSP2A-64
- A900U-RSP2A-128

The Cisco ASR 902U and ASR 903U Router support all interface modules supported on the Cisco A900-RSP2-64 and A-900-RSP2-128 Modules. For more information, see [Cisco ASR 903 and Cisco ASR 903U Aggregation Services Router Hardware Installation Guide](#) and [Cisco ASR 902 and Cisco ASR 902U Aggregation Services Router Hardware Installation Guide](#).

## New Software Features in Cisco IOS XE Everest 16.6.1

Following are the new software features:

- **16K EFP QoS Support**

Effective Cisco IOS XE Everest 16.6.1, 16K EFPs are supported on the Cisco RSP3 module. For more information, see [Quality of Service Configuration Guidelines, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **1 PPS Pulse Width Configuration**

On the Cisco ASR 900 RSP2 module, the 1 PPS pulse bandwidth can be changed from the default value of 500 milliseconds to up to 20 microseconds. For more information, see [Timing and Synchronization Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **Alarm support for 900W**

Effective from Cisco IOS XE Everest 16.6.1, on RSP3 module, alarm notification is enabled on 900 watts DC power supply. There are 2 input feeds for 900 watts DC power supply, if one of the input voltage is lesser than the operating voltage, critical alarm is generated for that particular feed and clears (stops) once the voltage is restored but the power supply state remains in OK state as the Other power supply is operationally up. For more information, see [Cisco ASR 900 Router Series Configuration Guide, Cisco IOS XE Everest 16.6.1](#).

- **Auto In-Service State for Ports**

The Cisco ASR 900 series routers with RSP3 module now support management of equipment and port state model in two modes. These modes are the transport mode and the router mode. For more information, see [Auto In-Service States, Cisco IOS XE Everest 16.6.1 \(ASR 900 Series\)](#).

- **Channel Associated Signaling (CAS)**

CAS is a method of signaling, where the signaling information is carried over a signaling resource that is specific to a particular channel. For each channel, there is a dedicated and associated signaling channel.

The Cisco ASR 900 Router with RSP2 module supports CAS with the 8x T1/E1 interface modules and is interoperable with the E and M interface cards.



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**Note** The Cisco ASR 900 Router supports CAS only in the E1 mode for the 8x T1/E1 interface cards. Use the card type e1 slot/subslot command to configure controller in the E1 mode.

---

For more information, see [Time Division Multiplexing Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **Configuring Data Communication Channel**

The Data Communication Channel (DCC) feature uses the SONET or SDH Operation Administration and Maintenance (OAM) channel to manage devices that support SONET or SDH interfaces. SONET or SDH standards support extensive operations, administration, management, and provisioning (OAM&P) capabilities.

The following overhead bytes are specified in the standards as the OAM channels that carry management information, alarms, and management commands:

- D1 to D3 bytes of the Section overhead
- D4 to D12 bytes of the Line overhead

These overhead bytes are referred to as the Data Communication Channel (DCC). ITU-G.7712 has defined the following three DCC network domains:

- OSI DCC network
- IP DCC network
- OSI+IP DCC network

Effective Cisco IOS XE Everest 16.6.1 release, only OSI DCC network and IP DCC network are supported, which implies that same type of network resides on either side of the router.

- **Configuring MSP on 1-Port OC192/STM-64 or 8-Port OC3/12/48/STM-1/-4/-16 Module**

Multiplex Section Protection (MSP) is a protection mechanism for SDH networks that enables SDH connections to switch to another SDH circuit when a circuit failure occurs. A protection interface serves as the backup interface for the working interface. When the working interface fails, the protection interface quickly assumes its traffic load.

The SDH protection schemes comply with GR-253 and ITU-T G.783. It allows Optical Interface Module to work seamlessly as SDH Add or Drop Multiplexers (ADMs). The implementation of the above protection schemes allows a pair of SDH lines or paths to be configured for line or path redundancy. In the event of a fiber cut, the active line or path switches automatically to the standby line or path up to 60 milliseconds (2/5/10 millisecond for holdover and 50 millisecond switchovers).

- **Configuring SDH on 1-Port OC192/STM-64 or 8-Port OC3/12/48/STM-1/-4/-16 Module**

Synchronous Digital Hierarchy (SDH) is used in Europe by the International Telecommunication Union Telecommunication Standardization Sector (ITU-T) that defines optical signals and a synchronous frame structure for multiplexed digital traffic. SDH equipment is accepted everywhere except North America.

Prior to Cisco IOS XE Everest 16.5.1, Synchronous Optical NETwork (SONET) was supported on 1-Port OC192/STM-64 or 8-Port OC3/12/48/STM-1/-4/-16 Module for NCS 4200 Series Routers. SONET equipment is generally used in North America. 4-Port OC3 STM1 or 1-Port OC12 STM4 Module did not support all possible combinations of the SDH hierarchy.

Effective Cisco IOS XE Everest 16.6.1, SDH is supported on 1-Port OC192/STM-64 or 8-Port OC3/12/48/STM-1/-4/-16 Module along with SONET for NCS 4200 Series Routers. The IM supports the entire SDH hierarchy (except VC-2/C-2).

- **Configuring SNCP on 1-Port OC192/STM-64 or 8-Port OC3/12/48/STM-1/-4/-16 Module**

SNCP is a protection mechanism for SDH networks that enables SDH connections to switch to another SDH circuit when a circuit failure occurs. A protection interface serves as the backup interface for the working interface. When the working interface fails, the protection interface quickly assumes its traffic load.

The SDH protection schemes comply with GR-253 and ITU-T G.783. It allows Optical Interface Module to work seamlessly as SDH Add or Drop Multiplexers (ADMs). The implementation of the above protection schemes allows a pair of SDH lines or paths to be configured for line or path redundancy. In the event of a fiber cut, the active line or path switches automatically to the standby line or path up to 60 milliseconds (2/5/10 millisecond for holdover and 50 millisecond switchovers).

- **Displaying OBFL Information**

The **show logging onboard hw\_errors** command is introduced to display any hardware error in the setup. For more information, see [System Logging Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **DS1 and DS3 Card Protection**

DS1 and DS3 card protection feature is required to protect traffic when the interface module is out of service, if there is any software failure, or any hardware issues. Effective Cisco IOS XE Everest 16.6.1, only non-revertive 1:1 switching mode is supported. This feature is only supported on T1 and T3 interface modules. Card protection has primary and backup cards. Traffic is switched to back up the interface module when the primary interface module does not respond and vice versa.

This feature does not require any change in the patch panel of the interface modules. A new Y-cable is introduced to support the feature. Effective Cisco IOS XE Everest 16.6.1, the virtual controller only supports CEM level configuration and all other configurations are supported on both the physical interface modules.

- **Microwave Adaptive Code Modulation Enhancement**

A new ITU-T G.8031/Y.1731 Ethernet Bandwidth Notification Message (ETH-BNM) is used to notify the change of bandwidth of link from the microwave radio to the Ethernet switch. If the node receives the bandwidth information, it triggers the EEM script and takes action on the signal degradation to provide optimal bandwidth.

For information, see the [Carrier Ethernet Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **mVPN GRE over Physical Interface**

Effective Cisco IOS-XE Everest 16.6.1, mVPN GRE is supported over physical interface on the Cisco ASR 900 RSP3 module. For more information, see [IP Multicast: Multicast Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).

- **PVST+/RPVST+**

Cisco ASR routers can use the per-VLAN spanning-tree plus (PVST+) protocol based on the IEEE 802.1D standard and Cisco proprietary extensions, or the rapid per-VLAN spanning-tree plus (rapid-PVST+) protocol based on the IEEE 802.1w standard. For more information, see [LAN Switching Configuration Guide Cisco IOS XE Everest 16.6.1, \(Cisco ASR 900 Series\)](#).

- **QoS Support on Port Channel LACP Active Active**

Link Aggregation Control Protocol (LACP) supports the automatic creation of ether channels by exchanging LACP packets between LAN ports. Cisco IOS XE Everest 16.6.1 release introduces the support of QoS on port channel LACP active active mode. A maximum of eight member links form a port channel and thus the traffic is transported through the port channel. This feature is supported on Cisco RSP3 Module.

- **Routed Pseudowire and VPLS**

Effective Cisco IOS-XE Everest 16.6.1, routed pseudowire and VPLS are supported on the Cisco RSP3 module. For more information, see [MPLS Layer 2 VPNs Configuration Guide, Cisco IOS XE Everest 16.5.1 \(Cisco ASR 900 Series\)](#).

- **Segment Routing – Traffic Engineering (SR-TE)**

Effective Cisco IOS-XE Everest 16.6.1, SR-TE is supported on the Cisco RSP2 module. It provides a simple, automated, and scalable architecture to engineer traffic flows in a network. For more information, see [Segment Routing for Cisco IOS XE Everest 16.6.1](#).

- **Segment Routing Enhancement**

Effective Cisco IOS-XE Everest 16.6.1, segment routing feature is enhanced to include the following:

- SR-TE On Demand LSP
- SR-TE On Demand Next Hop
- OAM Support
- Dynamic PCC

For more information, see [Segment Routing for Cisco IOS XE Everest 16.6.1](#).

- **Split Horizon Enhancements**

The **efp\_feat\_ext** template is introduced on the RSP3 module. This template when enabled allows configuration of two split-horizon groups on the EVC bridge-domain. For more information, see [Carrier Ethernet Configuration Guide \(Cisco ASR 900 Series\)](#). For information on **efp\_feat\_ext** command see [Cisco IOS Multiprotocol Label Switching Command Reference](#).

- **Tributary Unit-Alarm Indication Signal (TU-AIS)**

TU-AIS alarms are higher order alarms compared to the AIS alarms. Effective Cisco IOS-XE Everest 16.6.1, TU-AIS alarms are generated and detected when the TDM circuits go down on the access layer of the network topology or a failure occurs in MPLS domain due to which SAToP connectivity goes down. TU-AIS alarms are supported on the OC3 IM in Cisco ASR 900 RSP1 and RSP2 modules. For more information, see [Cisco ASR 900 Series Router Configuration Guide, Cisco IOS XE Everest 16.6.1](#).

- **TWAMP support on MPLS/VPLS interface**

Effective Cisco IOS-XE Everest 16.6.1, time stamping is supported on MPLS/VPLS interfaces. For more information, see [IP SLAs Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900\)](#).

- **VPLS over IP FRR , rLFA , BGP PIC, RFC 3107 intra, and inter AS**

Effective with Cisco IOS XE Everest 16.6.1, Cisco ASR 900 RSP3 module supports VPLS over IP FRR, rLFA, BGP PIC, RFC 3107 intra, and inter AS. For more information, see [MPLS Layer 2 VPNs Configuration Guide, Cisco IOS XE Everest 16.6.1 \(Cisco ASR 900 Series\)](#).





## CHAPTER 3

# Caveats

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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.



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**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.

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- [Cisco Bug Search Tool, on page 26](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.9, on page 26](#)
- [Platform Independent Open Caveats – Cisco IOS XE Everest 16.6.9, on page 26](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.9, on page 27](#)
- [Platform Independent Resolved Caveats – Cisco IOS XE Everest 16.6.9, on page 27](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.8, on page 27](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.8, on page 28](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.7, on page 28](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.7, on page 29](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.6, on page 31](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.6, on page 31](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.5a, on page 32](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.5a, on page 33](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.4, on page 34](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.4, on page 35](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.3, on page 36](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.3, on page 38](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.2, on page 39](#)
- [Resolved Caveats – Cisco IOS XE Everest 16.6.2, on page 41](#)
- [Open Caveats – Cisco IOS XE Everest 16.6.1, on page 43](#)
- [Resolve Caveats – Cisco IOS XE Everest 16.6.1, on page 45](#)

## 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 Caveats – Cisco IOS XE Everest 16.6.9

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCve78337</a> | MLP MRAPS convergence is high on Work-Active SSO node   |
| <a href="#">CSCvf08656</a> | Cisco RSP3 module: Traffic fails for few labelled BGP prefixes (BGP label imposed is incorrect)           |
| <a href="#">CSCvn47496</a> | ENH : RSP3C request for overriding restriction "MVPN-GRE VRF-SM: RP must be at Encap PE"                  |
| <a href="#">CSCvr54918</a> | MPLS MTU is not correctly derived from interface MTU after reload   |
| <a href="#">CSCvs19041</a> | Traffic sent to the subnets routed over VRF, packets ends up in default class - wrong classification      |
| <a href="#">CSCvw64784</a> | Cisco RSP2 Module CEM ACR: Unable to reuse same clock ID on another controller after clock ID is deleted. |

## Platform Independent Open Caveats – Cisco IOS XE Everest 16.6.9

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvg75709</a> | Unnecessary RIB updates are observed when metric-style transition is configured.           |
| <a href="#">CSCvs15808</a> | VRRPv3 fails on port-channel sub-interface.  |
| <a href="#">CSCvt08609</a> | Secondary IP address is invisible when interface configure with DHCP as primary ip address |



## Resolved Caveats – Cisco IOS XE Everest 16.6.9

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvr69196</a> | Cisco IOS XE software for Cisco ASR 900 Series RSP3 arbitrary code execution vulnerability |
| <a href="#">CSCvs34482</a> | ISSU is not working on Cisco RSP2 module nodes   |
| <a href="#">CSCvt99095</a> | Traceback: High CPU on standby RSP due to IOMD with A900-IMASER14A/S installed             |

## Platform Independent Resolved Caveats – Cisco IOS XE Everest 16.6.9

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvr83128</a> | Cisco IOS and IOS XE software MP-BGP EVPN Denial of Service vulnerability                            |
| <a href="#">CSCvt78186</a> | Cisco IOS and IOS XE Software split DNS Denial of Service vulnerability                              |
| <a href="#">CSCvu18001</a> | Segmentation fault observed in BGP -"UNIX-EXT-SIGNAL: Segmentation fault(11), Process = BGP Scanner" |
| <a href="#">CSCvu85572</a> | Dynamic neighbor does not form when peer-group is shutdown in different VRF                          |
| <a href="#">CSCvv64633</a> | BGP: advertised community list is malformed due to GSHUT community                                   |

## Open Caveats – Cisco IOS XE Everest 16.6.8

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCve35835</a> | MRAPS 1+1 UNI : RP switchover on work-active triggers APS switch                                  |
| <a href="#">CSCvf08656</a> | RSP3 : Traffic failure for few Labelled BGP prefixes (BGP label imposed is incorrect)             |
| <a href="#">CSCvk68174</a> | Led Indicator on ASR903 showing down after configuring xconnect                                   |
| <a href="#">CSCvn55871</a> | T1 serial interface went down with encapsulation mode as PPP with remote loopback config as iboc. |
| <a href="#">CSCvp37091</a> | 40G and 100G Reading threshold values from ID prom instead of static ios tables                   |
| <a href="#">CSCvr61610</a> | Kernel Crash observed with Core Port Shut/Un-shut   |
| <a href="#">CSCux57435</a> | RSP3: Display slot 3 PSU along with other PSUs  |

## Resolved Caveats – Cisco IOS XE Everest 16.6.8

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvk56297</a> | Enhancement request to warn about different software image in RSP3      |
| <a href="#">CSCvt15949</a> | Config unconfig of ACL with running-config CLI results in Error objects |
| <a href="#">CSCvf30430</a> | CLI and MIB value not matching  |

## Open Caveats – Cisco IOS XE Everest 16.6.7

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvq74237</a> | Critical Alarm for serial card reappear after RP switch over    |
| <a href="#">CSCvk68174</a> | Led Indicator on ASR903 showing down after configuring xconnect |
| <a href="#">CSCvq74237</a> | Critical Alarm for serial card reappear after RP switch over    |

## Open Caveats – Platform Independent

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvn22199</a> | ISR4K fails to authenticate users via dot1x following interface flap                         |
| <a href="#">CSCvo58118</a> | CTS Environment-data is not getting refreshed on the device                                  |
| <a href="#">CSCvp66281</a> | default ip forward-protocol udp xx changed to no ip forward-protocol udp xx after rollback   |
| <a href="#">CSCvq56114</a> | Cat3k crash in IGMP code due to invalid source count in DNS lookup                           |
| <a href="#">CSCvq57996</a> | RADIUS attribute 4 (NAS-IP-Address) is not honored   |
| <a href="#">CSCvq69866</a> | HSRPv2 crash whilst retrieving group from received packet                                    |
| <a href="#">CSCvq72298</a> | Router crashed on running show policy-map interface <> output command                        |
| <a href="#">CSCvq75307</a> | Crash due to watchdog after adding a prefix-list/ Route-map entry to existing route map.     |
| <a href="#">CSCvq78692</a> | mGRE L3VPN broken after reload   |
| <a href="#">CSCvq89252</a> | IP SLA for Path-Jitter returning a value which isn't defined by the MIB                      |
| <a href="#">CSCvq91789</a> | When issuing ip helper-addresses x.x.x.x command, "sh run" and "sh run all" show differently |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvq97365</a> | 2 interfaces of client in different vrf connected to same vlan of server not able to get ip via dhcp |
| <a href="#">CSCvr00183</a> | AAA accounting issue after router reload when mGRE and L3VPN configured                              |
| <a href="#">CSCvr00344</a> | "ip access-list logging hash-generation" removes ACL statements upon reload                          |
| <a href="#">CSCvr05406</a> | LISP Map-cache not updated correctly after wired Host-mobility                                       |
| <a href="#">CSCvr08961</a> | Switch stop responding to CoA  |
| <a href="#">CSCvr10897</a> | Adjacency SIDs not detected in mpls traffic-eng topology (interop issue)                             |
| <a href="#">CSCvr26105</a> | ICMP Redirect Message is sending incorrect next-hop in the "gateway address"                         |
| <a href="#">CSCvr26693</a> | The order of cEigrpPeerAddrType value and cEigrpPeerAddr value does not follow SNMP Object Navigator |
| <a href="#">CSCvr31017</a> | ip gratuitous ARP is not VRF aware   |
| <a href="#">CSCvr32292</a> | Router may crash due to segmentation fault after running EEM script                                  |

## Resolved Caveats – Cisco IOS XE Everest 16.6.7

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvj00222</a> | Intermittent packet drops for small size vrf ping (64-72)  |
| <a href="#">CSCvp24919</a> | ToD UBX Format - Incorrect header and checksum calculation |
| <a href="#">CSCvp67001</a> | IM Secure FPGA   |
| <a href="#">CSCvp86314</a> | IM Secure FPGA   |
| <a href="#">CSCvp86329</a> | IM secure FPGA   |

## Resolved Caveats - Platform Independent

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvd55092</a> | C3650 traffic will not be block although hit deny ACL entry                                      |
| <a href="#">CSCvd67904</a> | 4500X does not run dot1x when a laptop wakes from sleep mode                                     |
| <a href="#">CSCve57810</a> | Amur failing over w/o 'fail next-method' or 'no-response next method'                            |
| <a href="#">CSCvg32153</a> | "show interface port-channel" falsely reports output drops when there are no actual output drops |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvh26032</a> | ICMP Redirect Message is sending incorrect next-hop in the "gateway address"                       |
| <a href="#">CSCvh49874</a> | FNF monitor download to DP failed after changing netflow record                                    |
| <a href="#">CSCvi22263</a> | Crash when IOS is adapting shaping with Adaptive QoS over DMVPN configured                         |
| <a href="#">CSCvj41876</a> | Prefixes are stuck indefinitely in the BGP pending-prefixes list                                   |
| <a href="#">CSCvj76866</a> | Partial Power Failure in Stack Causes Interfaces to Become "shutdown"                              |
| <a href="#">CSCvk51939</a> | SSS Manager Traceback observer when test MLPPP   |
| <a href="#">CSCvm10850</a> | Crash after CPUHOG in ISDN L2D SRQ Process   |
| <a href="#">CSCvm47690</a> | Addition/Edits to numbered OG ACL using "access-list <>" command does not re-expand the ACL.       |
| <a href="#">CSCvn00104</a> | Software crash due to memory corruption after packet trace was enabled.                            |
| <a href="#">CSCvn23906</a> | DHCP Server sends Renew ACKs to Clients with 00:00:00:00:00:00 MAC in L2 frame                     |
| <a href="#">CSCvn45732</a> | Device crashing if we unconfigure the NTP on the device  |
| <a href="#">CSCvn78961</a> | Subscribers cannot re-login due to CoA time-out (lite-sessions in routed mode)                     |
| <a href="#">CSCvo06817</a> | Router crash while executing show commands using ' ' (pipe) to filter the output.                  |
| <a href="#">CSCvo10145</a> | Memory overlay crash when using include-cui  |
| <a href="#">CSCvo10491</a> | PnP Agent should detect image upgrade scenario and configure dialer to bring up cellular interface |
| <a href="#">CSCvo17287</a> | ASR1001-X crashed upon receiving Radius Access-Accept message                                      |
| <a href="#">CSCvo21122</a> | Memory leak at hman process  |
| <a href="#">CSCvo36031</a> | WSMA crash formatting show command output  |
| <a href="#">CSCvo55194</a> | After RSP switchover label imposition was not programmed in Software on APS standby router         |
| <a href="#">CSCvo58098</a> | CTS PACS not downloading to the devices  |
| <a href="#">CSCvo65415</a> | ASR1k crashes by handling DHCP packet  |
| <a href="#">CSCvo71721</a> | When sending account-logon ISG do not reply with ACK nor NACK.                                     |
| <a href="#">CSCvo87827</a> | Crash when polling IPForwarding MIB  |
| <a href="#">CSCvo90060</a> | Wrong label programming leading to traffic drop  |
| <a href="#">CSCvp24981</a> | When FQDN used for APN, IOS DNS resolves FQDN to IP, but GTP stays in DNS pending and IP 0.0.0.0   |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvp27220</a> | Tail drops on IPSLA sender when using scaled udp-jitter probes                                      |
| <a href="#">CSCvp38407</a> | "Radius-server attribute 31" command broken on LNS when LAC sends Remote-Id string                  |
| <a href="#">CSCvp70443</a> | isdn cause-location command support for switch-type primary-ntt                                     |
| <a href="#">CSCvp72379</a> | ip dns primary command does not get removed   |
| <a href="#">CSCvp74674</a> | QoS fails to apply to tunnel2 when underlying tunnel1 reachability change                           |
| <a href="#">CSCvp84831</a> | name-ip_address mapping is bypassed when the ip domain command is configured on Cisco C1111X Router |
| <a href="#">CSCvp87488</a> | no login on-success log CLI does not persist across device reloads                                  |
| <a href="#">CSCvq00263</a> | Device crashed @ radius_io_stats_timer_handler due to dynamic-author                                |
| <a href="#">CSCvq04828</a> | VRF aware reverse DNS lookup not working  |
| <a href="#">CSCvq04989</a> | ping between 2 Interfaces is not working , dialer interface is interfering in the ARP Process       |
| <a href="#">CSCvq20005</a> | SRMS tries to build a snapshot when there are no SIDs   |
| <a href="#">CSCvq50202</a> | Class-attributes duplicated after EAP reauthen. in ISG radius proxy scenario                        |
| <a href="#">CSCvq58265</a> | ASR1K BGP PIC Repair path broke after link flap   |
| <a href="#">CSCvq65283</a> | VXLAN EVPN BGP NEXTHOP not correctly changed with Route-map   |

## Open Caveats – Cisco IOS XE Everest 16.6.6

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvp12102</a> | New MPLS entry caused the router to crash                                     |
| <a href="#">CSCvj33102</a> | [SVSP-215]-AINS card type profile not working post router reload for DS1 card |

## Resolved Caveats – Cisco IOS XE Everest 16.6.6

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvj50537</a> | ISSU Failure  |
| <a href="#">CSCvk54023</a> | Convergence delay in active RSP removal                   |
| <a href="#">CSCvk75941</a> | Interface comes out of PoCH on IM OIR followed by RP OIR. |

| Caveat ID Number | Description   |
|------------------|---|
| CSCvn08456       | Giant counters incremented for packets bigger than 1500 bytes |

## Open Caveats – Cisco IOS XE Everest 16.6.5a

| Caveat ID Number | Description  |
|------------------|--|
| CSCvc38475       | Serdes not locking with ISSU and reload  |
| CSCvd44667       | RSP3: PREFIX Object Errored Objects on Local Core Flaps and in Parallel on Other Routers in the Core |
| CSCve10095       | Traffic is getting dropped in both direction due to hw programming went for toss                     |
| CSCve16996       | Ingress classification misbehaves after removing set qos-group statement from a class.               |
| CSCve22604       | RSP3:QOSMGR-4-QUEUE_EXCEEDING_HW messages are seen on port-channel remove and re-config              |
| CSCve37392       | RSP3: with ingress dscp (1k tcam scale)policy-map scale and remove, stale TCAM entry found           |
| CSCve63423       | Egress Policy-map stats(Output packet counts) accounting twice with policy at Port and EFP           |
| CSCve86912       | [Counter]: Giant/Runt/Pause Frame counters issue.  |
| CSCvf08656       | RSP3 : Traffic failure for few Labelled BGP prefixes (BGP label imposed is incorrect)                |
| CSCvf45267       | RSP3 - Loadbalance map not getting deleted (IM OIR)  |
| CSCvg76895       | VID.116-ONS-SI-2G-L1 SFP is rejected by Sonet Module - OC48 SFP Init failure image                   |
| CSCvj33102       | [SVSP-215]-AINS card type profile not working post router reload for DS1 card                        |
| CSCvj75078       | RSP3: IOMD crash @ iomd_bsess_open_callback_retry on new active after RP SSO                         |
| CSCvk54023       | Convergence delay in active RSP removal  |
| CSCvn08456       | RSP3: Giant counters incremented for packets bigger than 1500 bytes                                  |
| CSCvn43045       | [RSP3] DHCP packets dropped over the split horizon VPLS EFP  |
| CSCve64323       | RSP1:MPLS MTU programming fails on standby with latest image   |
| CSCve72906       | RSP3:ECMP LB seen when flags field is changed in ip header with l4 header in 4 label scenario        |
| CSCvg43968       | CREATE:Cylon Mgr crash @ adjmgr_get_fid_index  |
| CSCvi21714       | ASR907 showing alarms of power supply 3 missing  |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvi53346</a> | RSP3 : BFD packets not sent out towards 9K after timer change and link flap                        |
| <a href="#">CSCvi79409</a> | ENM flaps/hangs on configuring CEM interface   |
| <a href="#">CSCvi92596</a> | ISSU: interface module delay calculation needs to be enhanced for TDM IMs                          |
| <a href="#">CSCvj50335</a> | SERDES lock issue on DS1 IM in slot15  |
| <a href="#">CSCvj60379</a> | RSP3: ARP Request Not Generated when IPv4 Routable Packets with L4 Header are Punted               |
| <a href="#">CSCvk07960</a> | RSP3_400 - silent reload - Last reload reason: Critical process smand fault on rp_0_0 (rc=0)       |
| <a href="#">CSCvk62834</a> | 16101:cylon_mgr crash@nile_cef_prefix_v4u_get_adj_info seen in soak run on 16th July Polaris image |
| <a href="#">CSCvm96368</a> | non-Cisco USB is not recognized in rommon while it shows up in IOS-XE                              |
| <a href="#">CSCvh05072</a> | Cem Sys : LOF/AIS are set on T3 under STS in arrive but not asserted in IOS                        |
| <a href="#">CSCvi40742</a> | Configuration change on E&M interface results in xconnect failure                                  |
| <a href="#">CSCvm84355</a> | [SVSP-299]-'linkDown' trap should not be sent when the port is in AINS mode-[SVSPE-570]            |
| <a href="#">CSCvk47892</a> | ASR900-RSP3C-400:For ONS-SC+-10G-Z SFP , intf doesnt come up aftr "hw-module subslot <>stop/start" |
| <a href="#">CSCvd58289</a> | IPC buffer leak during error conditions  |

## Resolved Caveats – Cisco IOS XE Everest 16.6.5a

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvd58289</a> | IPC buffer leak during error conditions   |
| <a href="#">CSCve64323</a> | RSP1:MPLS MTU programming fails on standby with latest image                                  |
| <a href="#">CSCve72906</a> | RSP3:ECMP LB seen when flags field is changed in ip header with l4 header in 4 label scenario |
| <a href="#">CSCvi21714</a> | ASR907 showing alarms of power supply 3 missing   |
| <a href="#">CSCvi53346</a> | RSP3 : BFD packets not sent out towards 9K after timer change and link flap                   |
| <a href="#">CSCvi92596</a> | ISSU: interface module delay calculation needs to be enhanced for TDM IMs                     |
| <a href="#">CSCvj50335</a> | SERDES lock issue on DS1 IM in slot15   |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvj60379</a> | RSP3: ARP Request Not Generated when IPv4 Routable Packets with L4 Header are Punted              |
| <a href="#">CSCvk07960</a> | RSP3_400 - silent reload - Last reload reason: Critical process smand fault on rp_0_0 (rc=0)      |
| <a href="#">CSCvm96368</a> | non-Cisco USB is not recognized in rommon while it shows up in IOS-XE                             |
| <a href="#">CSCvh06656</a> | Malformed OSPF packet causes crash  |
| <a href="#">CSCvg28351</a> | VPLS with Segment Routing not flowing traffic.  |
| <a href="#">CSCvi21308</a> | RSP3_400 : Tx bias values are high on CPAK-100G and QSFP-40G SFP's                                |
| <a href="#">CSCvi67694</a> | 100Gig link is up in one node and down in peer side after multiple reloads with CPAK-SR-10 optics |
| <a href="#">CSCvk20779</a> | APS switch times exceed 50ms in Rx direction for T3 SATOP with Eomer                              |

## Open Caveats – Cisco IOS XE Everest 16.6.4

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCui87222</a> | IP directed-broadcast functionality not working on RSP1/RSP2                           |
| <a href="#">CSCve73831</a> | THS:After SSO/ISSU observed AIS Alarm in SYSTEM THS with XE318SP Image                 |
| <a href="#">CSCvf55327</a> | CLNS interop with ONS not working  |
| <a href="#">CSCvg21899</a> | Traffic forwarding not happening for VLANs added via "encap dot1q add" command in TEFP |
| <a href="#">CSCvh52244</a> | Uni-directional communication failure with IOT Legacy IMs                              |
| <a href="#">CSCvh55384</a> | Need to Accept User Configurable 4Wire E&M CEM Payload and DeJitter Buffer Values      |
| <a href="#">CSCvh55399</a> | T1 Service Latency is Asymmetric in a Simple Linear Topology                           |
| <a href="#">CSCvh69270</a> | RSP2_MLDP-Rentry chunk memory leak when zapping the multicast channels                 |
| <a href="#">CSCvh76761</a> | A900-RSP3C-200-S RSP module crashes while MPLS TE tunnel interfaces comes up           |
| <a href="#">CSCvh79267</a> | RSP3: Hundredgig interface goes down with reload with SR10 H/W settings                |
| <a href="#">CSCvi21134</a> | C37.94 port change leads to controller flap  |
| <a href="#">CSCvi25653</a> | TDM-IOT: observing uni-directional traffic failure after replacing TDM IM with IOT IM  |



| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvi32766</a> | 9400: entSensorThreshold traps are generated even when temperature threshold isn't crossed  |
| <a href="#">CSCvi41087</a> | E&M:Payload size other than multiple of 48(96,192...) bytes never work in TO mode           |
| <a href="#">CSCvi55229</a> | ENM Type 3 doesnt work on port 4 , if port 0 is also configured for ENM Type TO             |
| <a href="#">CSCvi70138</a> | Adptive Clock Rec and master CEM is chosen automatically on the CEM circuit in IMA8D        |
| <a href="#">CSCvi85693</a> | Mac Flap Syslog Notification not working after reload                                       |
| <a href="#">CSCvj43887</a> | Type TO is not working for different payload sizes  |
| <a href="#">CSCvd99581</a> | RSP3-400: In polaris Fan speeds are not set properly according to the temperature           |
| <a href="#">CSCvi21308</a> | RSP3_400 : Tx bias values are high on CPAK-100G and QSFP-40G SFP's                          |
| <a href="#">CSCvg92065</a> | PTP session stuck in HOLDOVER in RSP2 Timing WRT - 1588_Transparent <Vz>                    |
| <a href="#">CSCvi71909</a> | G.8265.1- T3 packets getting stopped while adding and deleting clock source multiple times. |
| <a href="#">CSCvj57301</a> | [VF-PT] Slave not locking on a specific port (IMA8T Gi0/5/0)                                |
| <a href="#">CSCuy78963</a> | FNF CLIs are visible for templates other than netflow-video in Striker                      |

## Resolved Caveats – Cisco IOS XE Everest 16.6.4

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCuy84775</a> | Slow response when typing in CLI on telnet session  |
| <a href="#">CSCvb96943</a> | Offset from master jumps to Huge value with SPAN  |
| <a href="#">CSCve53492</a> | IOT: For Serial(with RS232) interface IfType comes as other instead of serial/RS232                 |
| <a href="#">CSCvg70409</a> | IOT: For Serial IM, flowcontrol is not applicable   |
| <a href="#">CSCvh32219</a> | Require Environmental Syslog message during Recovery of temperature and voltage Threshold Violation |
| <a href="#">CSCvi40742</a> | Configuration change on E&M interface results in xconnect failure                                   |
| <a href="#">CSCvi53346</a> | RSP3 : BFD packets not sent out towards 9K after timer change and link flap                         |
| <a href="#">CSCvi72770</a> | Unpredictable asymmetry across the port on C37.94 IM  |
| <a href="#">CSCvi79409</a> | ENM flaps/hangs on configuring CEM interface  |
| <a href="#">CSCvj05472</a> | Running line rate traffic on an internal loopback impacts BFD session                               |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvj10722</a> | CEM Pseudo wire flap on SSO  |
| <a href="#">CSCvj22030</a> | ACR fails with +/- 50 ppm tolerance  |
| <a href="#">CSCvj61645</a> | Incorrect Tx/Rx optical power thresholds for QSFP-40G-LR4                            |
| <a href="#">CSCvj43887</a> | Type TO is not working for different payload sizes                                   |
| <a href="#">CSCve43412</a> | RSP3: CFM stats are not working on latest polaris images                             |
| <a href="#">CSCvi79552</a> | HSRP and VRRP didnt converge with Multi Active portchannel Template                  |
| <a href="#">CSCvj13676</a> | ENM IM : remove signal command from Type TO mode                                     |
| <a href="#">CSCvi85693</a> | Mac Flap Syslog Notification not working after reload                                |
| <a href="#">CSCvi70138</a> | Adptive Clock Rec and master CEM is chosen automatically on the CEM circuit in IMA8D |

## Open Caveats – Cisco IOS XE Everest 16.6.3

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCuz24819</a> | Crash seen when WAN-PHY mode is enabled in RSP3  |
| <a href="#">CSCvg57555</a> | Parity: show logging soft-error command with slot (RO/ R1) selecting option not present.             |
| <a href="#">CSCvh76761</a> | A900-RSP3C-200-S RSP module crashes while MPLS TE tunnel interfaces comes up.                        |
| <a href="#">CSCvb99102</a> | MH BFD session flaps on shutting interface of no relevance to BFD session.                           |
| <a href="#">CSCvd13823</a> | Storm control - L3 Mcast Traffic : Not all packets are dropped.                                      |
| <a href="#">CSCvd38391</a> | Standby Router: uea_mgr crashed @ ml2vpn_provision_pw_and_ac   |
| <a href="#">CSCvd44667</a> | RSP3: PREFIX Object Errored Objects on Local Core Flaps and in Parallel on Other Routers in the Core |
| <a href="#">CSCvd50734</a> | RSP3-200: Router Crash while trying to delete label uea_oce_base_delete uea_mpls_label_delete_async. |
| <a href="#">CSCve10095</a> | Traffic is getting dropped in both direction due to hw programming went for toss                     |
| <a href="#">CSCve16996</a> | Ingress classification misbehaves after removing set qos-group statement from a class.               |
| <a href="#">CSCve22604</a> | RSP3:QOSMGR-4-QUEUE_EXCEEDING_HW messages are seen on port-channel remove and re-config              |
| <a href="#">CSCve20630</a> | RSP2 TDM THS : Core generate during reload : unable to initialize the bipc manager                   |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCve72906</a> | RSP3:ECMP LB seen when flags field is changed in ip header with l4 header in 4 label scenario |
| <a href="#">CSCve86912</a> | [Counter]: Giant/Runt/Pause Frame counters issue.   |
| <a href="#">CSCve92911</a> | TCAM limit exceeded with interface flaps without any feature enabled                          |
| <a href="#">CSCvh67059</a> | ASR903 detected %EC-5-MINLINKS_NOTMET more earlier.   |
| <a href="#">CSCvb96943</a> | Offset from master jumps to Huge value with SPAN  |
| <a href="#">CSCvd77735</a> | RSP3 - Small loss (6-10ms) observed for VPLS traffic when BGP backup peer is powered down     |
| <a href="#">CSCvd95331</a> | Eomer: Eomer support on slot 0 and 1 to be blocked  |
| <a href="#">CSCve04570</a> | Polaris_dev - RSP2 MPLS WRT - CFM ping is not working in SLMoVPLS.                            |
| <a href="#">CSCve35835</a> | MRAPS 1+1 UNI : RP switchover on work-active triggers APS switch                              |
| <a href="#">CSCve37392</a> | RSP3: with ingress dscp (1k team scale)policy-map scale and remove, stale TCAM entry found.   |
| <a href="#">CSCve63423</a> | Egress Policy-map stats(Output packet counts) accounting twice with policy at Port and EFP    |
| <a href="#">CSCve78337</a> | MLP MRAPS Convergence is high on Work-Active SSO node   |
| <a href="#">CSCve79697</a> | BERT TUG3 VC3 with ACR and non-ACR unconfig cem/mode issue.                                   |
| <a href="#">CSCvf08656</a> | RSP3 : Traffic failure for few Labelled BGP prefixes (BGP label imposed is incorrect).        |
| <a href="#">CSCvfl7498</a> | 100BASE EX showing wrong PID in all UEA platforms.  |
| <a href="#">CSCvf45267</a> | RSP3 - Loadbalance map not getting deleted (IM OIR).  |
| <a href="#">CSCvg28351</a> | VPLS with Segment Routing not flowing traffic.  |
| <a href="#">CSCvh07238</a> | Unable to copy image from TFTP to RSP3C bootflash with higher block size.                     |
| <a href="#">CSCvh07238</a> | Standby RP relaoded while re configuring the card mode.                                       |
| <a href="#">CSCvd08449</a> | RSP2:BCPoMLPPP: %FMFP-3-OBJ_DWNLD_TO_DP_FAILED console logs results in pending/error object   |
| <a href="#">CSCvd87285</a> | ASR920 - Display issue - Egress i/f and L2 stats shows "unknown" and no packet drops          |
| <a href="#">CSCve90690</a> | L3 convergence for REP is more than 50ms, which is incorrect                                  |
| <a href="#">CSCvf22580</a> | IOT: For C3794 controller Listing type as VOICEEM(100) insteadof VoiceEnCap(103)              |
| <a href="#">CSCvf76091</a> | FP fails to bootup with mac security configurations   |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvf82663</a> | ASR903/RSP3C crashed at dl_callback   |
| <a href="#">CSCvg08224</a> | G8265.1: PTP flaps between HOLDOVER and LOCKED with 64/64 packet rate and HOTSTANDBY          |
| <a href="#">CSCvg22098</a> | Celeborn: Dev_pluggable inconsistent console log seen in THS                                  |
| <a href="#">CSCvg29464</a> | OSPFv3 neighbors stuck in EXSTART state when ingress ACL references IPv6 headers              |
| <a href="#">CSCvg30892</a> | License:observing ptp command failure error as part of moving from CSL to SL                  |
| <a href="#">CSCvg31244</a> | ASR900 RSP3C corrupts MGCP transaction ID   |
| <a href="#">CSCvg36086</a> | 100G driver switchover failure on forced SSO crash scenario causing serdes lock/ping failures |
| <a href="#">CSCvg36641</a> | Dying gasp snmp trap not seen with RSP2   |
| <a href="#">CSCvc59505</a> | Member link of Port channel gets removed on doing a SSO on the peer end                       |
| <a href="#">CSCve64341</a> | 920 : Mid Point LSP creation failure after reload with latest polaris Image                   |
| <a href="#">CSCvc38475</a> | Serdes not locking with ISSU and reload   |

## Resolved Caveats – Cisco IOS XE Everest 16.6.3

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvf03157</a> | RSP3:PC stays in suspended state on IM OIR   |
| <a href="#">CSCvf72154</a> | RSP3 - PIM neighborship down on BDI interface due to packets ASIC loop.                      |
| <a href="#">CSCvc94414</a> | RSP3: Incorrect traffic rate recieved with specific values of CIR/PIR in HQOS policy         |
| <a href="#">CSCvh06657</a> | ASR03 RSP3C crashed @ spa_entity_sensor_xcvr_get_data  |
| <a href="#">CSCvh08220</a> | RSP3: Crash in IOSD chasfs task on Defaulting and Removing IMA-1X                            |
| <a href="#">CSCvh67319</a> | ASR903: Router unresponsive during bootup with the packages.conf file                        |
| <a href="#">CSCve05859</a> | Exxx EIN: G.8275.1 testing: Clock loop forming between synce and ptp                         |
| <a href="#">CSCve37398</a> | RSP3-L2VPN: Load balancing is happening based on wrong fields in P node when CW is enabled.  |
| <a href="#">CSCve53479</a> | LOTR OCx: SNCP - CEM-PG controller is DOWN after PG shut / no shut                           |
| <a href="#">CSCve55240</a> | LOTR OCx: SNCP - PG cem group is not attached to physical leg for 2nd cem-group on same port |
| <a href="#">CSCve75491</a> | TE auto-bw: Incorrect bandwidth requested on soaking with traffic                            |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCve87759</a> | RSP3: Link flaps on configuring G8275.1  |
| <a href="#">CSCvf72165</a> | MPLSoRPW: Traceroute not working over Routed PW interface  |
| <a href="#">CSCvf82589</a> | Traffic loss seen with L2 Xconnect on 10G celebourn  |
| <a href="#">CSCvg01577</a> | LineStatusChange notification with not proper for clear event and problem event                    |
| <a href="#">CSCvh10730</a> | BFD stuck at init state for Sessin ID 1023 alone on ASR903 RSP3C after link flap                   |
| <a href="#">CSCvh51026</a> | ASR903 : Router unresponsive and hangs during boot-up while loading router with package image file |
| <a href="#">CSCvf99946</a> | size of adjacency flags field in cef_adj datastructure must be 32 Bits                             |

## Open Caveats – Cisco IOS XE Everest 16.6.2

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCuz24819</a> | Crash seen when WAN-PHY mode is enabled in RSP3  |
| <a href="#">CSCvb96943</a> | Offset from master jumps to Huge value with SPAN   |
| <a href="#">CSCvb99102</a> | MH BFD session flaps on shutting interface of no relevance to BFD session.                           |
| <a href="#">CSCvc38475</a> | Serdes not locking with ISSU and reload  |
| <a href="#">CSCvc94414</a> | RSP3: Incorrect traffic rate recieved with specific values of CIR/PIR in HQOS policy                 |
| <a href="#">CSCvd08449</a> | RSP2:BCPoMLPPP: %FMFP-3-OBJ_DWNLD_TO_DP_FAILED console logs results in pending/error object          |
| <a href="#">CSCvd38391</a> | Standby Router: uea_mgr crashed @ ml2vpn_provision_pw_and_ac   |
| <a href="#">CSCvd44667</a> | RSP3: PREFIX Object Errored Objects on Local Core Flaps and in Parallel on Other Routers in the Core |
| <a href="#">CSCvd77735</a> | RSP3 - Small loss (6-10ms) observed for VPLS traffic when BGP backup peer is powered down            |
| <a href="#">CSCvd87285</a> | ASR920 - Display issue - Egress i/f and L2 stats shows "unknown" and no packet drops                 |
| <a href="#">CSCvd95331</a> | Eomer: Eomer support on slot 0 and 1 to be blocked   |
| <a href="#">CSCve05859</a> | Exxx EIN: G.8275.1 testing: Clock loop forming between synce and ptp                                 |
| <a href="#">CSCve10095</a> | Traffic is getting dropped in both direction due to hw programming went for toss                     |
| <a href="#">CSCve16996</a> | Ingress classification misbehaves after removing set qos-group statement from a class.               |

| Caveat ID Number | Description   |
|------------------|---|
| CSCve20630       | RSP2 TDM THS : Core generate during reload : unable to initialize the bipc manager            |
| CSCve22604       | RSP3:QOSMGR-4-QUEUE_EXCEEDING_HW messages are seen on port-channel remove and re-config       |
| CSCve37392       | RSP3: with ingress dscp (1k tcam scale)policy-map scale and remove, stale TCAM entry found    |
| CSCve37398       | RSP3-L2VPN: Load balancing is happening based on wrong fields in P node when CW is enabled.   |
| CSCve53479       | LOTR OCx: SNCP - CEM-PG controller is DOWN after PG shut / no shut                            |
| CSCve63423       | Egress Policy-map stats(Output packet counts) accounting twice with policy at Port and EFP    |
| CSCve72906       | RSP3:ECMP LB seen when flags field is changed in ip header with l4 header in 4 label scenario |
| CSCve75491       | TE auto-bw: Incorrect bandwidth requested on soaking with traffic                             |
| CSCve78337       | MLP MRAPS Convergence is high on Work-Active SSO node   |
| CSCve86912       | [Counter]: Giant/Runt/Pause Frame counters issue.   |
| CSCve87759       | RSP3: Link flaps on configuring G8275.1   |
| CSCve90690       | L3 convergence for REP is more than 50ms, which is incorrect                                  |
| CSCve92911       | TCAM limit exceeded with interface flaps without any feature enabled                          |
| CSCvf03157       | RSP3:PC stays in suspended state on IM OIR  |
| CSCvf08656       | RSP3 : Traffic failure for few Labelled BGP prefixes (BGP label imposed is incorrect)         |
| CSCvf17498       | 100BASE EX showing wrong PID in all UEA platforms   |
| CSCvf22580       | IOT: For C3794 controller Listing type as VOICEEM(100) insteadof VoiceEnCap(103)              |
| CSCvf45267       | RSP3 - Loadbalance map not getting deleted (IM OIR)   |
| CSCvf72154       | RSP3 - PIM neighborhood down on BDI interface due to packets ASIC loop.                       |
| CSCvf72165       | RSP3 - Router crash after "debug platform condition" command is applied.                      |
| CSCvf76091       | FP fails to bootup with mac security configurations   |
| CSCvf82663       | ASR903/RSP3C crashed at dl_callback   |
| CSCvg01577       | LineStatusChange notification with not proper for clear event and problem event               |
| CSCvg08224       | G8265.1: PTP flaps between HOLDOVER and LOCKED with 64/64 packet rate and HOTSTANDBY          |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvg22098</a> | Celeborn: Dev_pluggable inconsistent console log seen in THS                                  |
| <a href="#">CSCvg29464</a> | OSPFv3 neighbors stuck in EXSTART state when ingress ACL references IPv6 headers              |
| <a href="#">CSCvg30892</a> | License:observing ptp command failure error as part of moving from CSL to SL                  |
| <a href="#">CSCvg31244</a> | ASR900 RSP3C corrupts MGCP transaction ID   |
| <a href="#">CSCvg36086</a> | 100G driver switchover failure on forced SSO crash scenario causing serdes lock/ping failures |
| <a href="#">CSCvg36641</a> | Dying gasp snmp trap not seen with RSP2   |
| <a href="#">CSCvc59505</a> | Member link of Port channel gets removed on doing a SSO on the peer end                       |
| <a href="#">CSCve64341</a> | 920 : Mid Point LSP creation failure after reload with latest polaris Image                   |

## Resolved Caveats – Cisco IOS XE Everest 16.6.2

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvc29551</a> | 1x100G port not coming up on few reloads   |
| <a href="#">CSCvd89421</a> | RMEP failure due to CFM HW table corruption  |
| <a href="#">CSCve10269</a> | RSP3 unable to route(drops) unicast dhcp packets with giaddr field as 0.0.0.0      |
| <a href="#">CSCve12246</a> | RSP3: RSP3 which is locked to GNSS VP is not giving better accuracy                |
| <a href="#">CSCve15834</a> | BGP PIC-E: Double dip traffic loss on recovering primary ABR for CEM And EOMPLS VC |
| <a href="#">CSCve34890</a> | RSP3 Mcast Convergence high with MSTP  |
| <a href="#">CSCve42430</a> | [SH] Invalid MC_TYPE in LIF update   |
| <a href="#">CSCve43278</a> | MVPN-GRE : Free the nmdt when core prefix goes away                                |
| <a href="#">CSCve45078</a> | RSP3-CFM: MA number is not working with ID NULL for offloaded sessions             |
| <a href="#">CSCve45313</a> | Observing error msg when applying policy map on rs232 interface.                   |
| <a href="#">CSCve45870</a> | Observing obj download with CFM configs  |
| <a href="#">CSCve56992</a> | Traffic loss seen with L2 Xconnect on 10G celeborn                                 |
| <a href="#">CSCve63937</a> | RSP2 ODN: pending and error objects pile up on stby RSP2 with ODN auto-tunnel      |
| <a href="#">CSCve70271</a> | OCx:SDH:MSP:VC1x:On create default txpsl set as 0x02 in ios it set as 0x01         |
| <a href="#">CSCve73883</a> | [ASR903] RSP3 Ping is not successful after IP moved to different EFP               |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCve77231</a> | RSP3:traffic failure on VRRP session and traces @ vrrp_comms_process_pak                        |
| <a href="#">CSCve81377</a> | RSP3:CFMoVPLS scale:VPLS PD entry missing for few neighbors upon Soak                           |
| <a href="#">CSCve83541</a> | RSP3: IOSd Crash on Deleting PTP Loopbacks during ISSU SOAK                                     |
| <a href="#">CSCve87122</a> | Frequency Traceable Flag is set to false on downstream routers when lpps is made down on TGM    |
| <a href="#">CSCve87327</a> | Tx SS bit should be set to 2 for SDH mode   |
| <a href="#">CSCve90377</a> | Active and standby RSP hang just after booting because of thermal shutdown                      |
| <a href="#">CSCve92481</a> | After ASR9k PTP reconfiguration, slave 903 stuck in freq-lock state.                            |
| <a href="#">CSCve93405</a> | RSP3 : RPW ping failure on VPLS PW's with Auto Discovery enabled                                |
| <a href="#">CSCve97758</a> | DS3 VCOP : AIS is not cleared after reload with loopback local configured on VCoP DS3 interface |
| <a href="#">CSCvf05587</a> | RSP3 : 2 KBP entries created for ingress vpnv4 label - Label swap case                          |
| <a href="#">CSCvf06625</a> | Programming mismatch between Active & STBY after STBY reload for L3VPN prefix                   |
| <a href="#">CSCvf17525</a> | cem shows up in logs when serial card is unpowered.   |
| <a href="#">CSCvf19017</a> | RSP3_GNSS: ToD down after reload on G8275.1T-BC   |
| <a href="#">CSCvf20723</a> | Power supply alarm generated in the absence of power supply                                     |
| <a href="#">CSCvf21127</a> | 2 AC's in a VFI, when one interface is shutdown, traffic is not flood to other interface        |
| <a href="#">CSCvf21487</a> | ASR907: L2VPN attachment circuit is going down after SSO on the line card A900-IMA8S1Z          |
| <a href="#">CSCvf24207</a> | RSP2_BC: Accuracy is bad on RSP2  |
| <a href="#">CSCvf33429</a> | APS UNI ADM mode: APS reverts back on clearing the shut from inactive controller                |
| <a href="#">CSCvf33518</a> | On SSO L3VPN prefix is programmed with LFA backup interface as primary interface in PD.         |
| <a href="#">CSCvf38857</a> | RSP3 PTP BC is not locking to the Master via intermediate PTP aware nodes with tagging enabled. |
| <a href="#">CSCvf40845</a> | Alarms are not generating values at Path level for concatenated STS(12C and 48C)                |
| <a href="#">CSCvf44536</a> | IOT-E&M_CAS:-X-connect down and observed Pseudowire type mismatch with peer error               |
| <a href="#">CSCvf46100</a> | 16.7/ASR902/RSP3C-200-S: Tracebacks on configuring interface PoCh                               |
| <a href="#">CSCvf57056</a> | T3 framed satop reporting parity errors on L-bit instead of AIS                                 |



| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvf60263</a> | APS-ACR Scale Issue:For 8K Scale Config, PW-GROUP not bound on Arrive CEM FPGA during Copy Config |
| <a href="#">CSCvf62586</a> | FAN missing in ASR902 RSP2 chassis  |
| <a href="#">CSCvf64035</a> | Few Bfd v4 sessions staying in down/init after ip address removal/addition                        |
| <a href="#">CSCvf66464</a> | ISSU failing between 16.5.X/16.6.Y CCO builds   |
| <a href="#">CSCvf68040</a> | labels not programmed on stby RSP for t1 circuits for denether IM                                 |
| <a href="#">CSCvf75494</a> | IOT: Session status for RawSocket Server is not correctly displayed.                              |
| <a href="#">CSCvf75503</a> | IOT: CLI Allows same TCP port to be configured for the clients and servers.                       |
| <a href="#">CSCvf76449</a> | Celeborn: Observing Object Download Failure on Shut/NO shut with CFM Config                       |
| <a href="#">CSCvf87314</a> | IOT: Raw-Socket TCP Session details is displaying the truncated VRF Names                         |
| <a href="#">CSCvf90854</a> | configured priority2 under ptp clock is not sent downstream when T- BC selected VP                |
| <a href="#">CSCve64336</a> | RSP1-Continuous ESMC tracebacks observed after IMA8T OIR followed by SSO                          |
| <a href="#">CSCve98223</a> | Two PW-Group switchover notifications are triggered from PI to PD for a single event              |
| <a href="#">CSCvf05616</a> | Traffic drop, on reconfiguring l2vpn sessions after sso on peer                                   |
| <a href="#">CSCvf33489</a> | ISIS FRR : FRR ReOpt Issue, FRR state pointing to Label backup even with primary link up          |

## Open Caveats – Cisco IOS XE Everest 16.6.1

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCve52155</a> | RSP3: BFD Session Between 2 RSP3s Down on Reloading 1 RSP3                          |
| <a href="#">CSCvd11229</a> | Some of BFD session are flapped after changing the bfd timer                        |
| <a href="#">CSCvb01668</a> | Convergence time is taking more than 50 ms(7 secs) after SS0 with IPV6              |
| <a href="#">CSCvb99102</a> | MH BFD session flaps on shutting interface of no relevance to BFD session.          |
| <a href="#">CSCvf06625</a> | Programming mismatch between Active & STBY after STBY reload for L3VPN prefix       |
| <a href="#">CSCve73883</a> | [ASR903] RSP3 Ping is not successful after IP moved to different EFP                |
| <a href="#">CSCvd36139</a> | 40G interface down on changing mode from LAN to OTN.                                |
| <a href="#">CSCve63289</a> | Micro flaps are seen in interface when an xconnect is made down                     |
| <a href="#">CSCve53492</a> | IOT: For Serial(with RS232) interface IfType comes as other instead of serial/RS232 |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvf02136</a> | VLAN Untagged Traffic Wrongly Punted to CPU When Service Instance Deleted                        |
| <a href="#">CSCvd13775</a> | Duplicate EFP stats seen with snoop traffic.   |
| <a href="#">CSCve10269</a> | RSP3 unable to route(drops) unicast dhcp packets with giaddr field as 0.0.0.0                    |
| <a href="#">CSCve15834</a> | BGP PIC-E: Double dip traffic loss on recovering primary ABR for CEM And EOMPLS VC               |
| <a href="#">CSCvd73294</a> | L2VPN : Traffic drop on recovery of PIC- primary peer  |
| <a href="#">CSCve63937</a> | RSP2 ODN: pending and error objects pile up on stby RSP2 with ODN auto-tunnel                    |
| <a href="#">CSCvf05386</a> | RSP2: Standby RP Get AToM Forwarding Context Cylon_Mgr Crash on Core Gigs Flap SOAK on RRs       |
| <a href="#">CSCvd34677</a> | RSP3 : 30-40sec traffic loss for MPLS TE tunnels on performing SSO @ TE midpoint                 |
| <a href="#">CSCve93405</a> | RSP3 : RPW ping failure on VPLS PW's with Auto Discovery enabled                                 |
| <a href="#">CSCve45288</a> | RSP3-L2VPN: ECMP LB is not working based on PE node in 3 label scenario when PIC core disabled   |
| <a href="#">CSCve37398</a> | RSP3-L2VPN: Load balancing is happening based on wrong fields in P node when CW is enabled.      |
| <a href="#">CSCve72876</a> | RSP3: LB is not working on P node based on Source/destination ipv6 addresses in 3 label scenario |
| <a href="#">CSCvd81439</a> | RSP3: VPLS HW stale entries are present although PW is down                                      |
| <a href="#">CSCve72906</a> | RSP3:ECMP LB seen when flags field is changed in ip header with l4 header in 4 label scenario    |
| <a href="#">CSCva63048</a> | RSP3:Traffic Drop,IP FRR Primary is program'd with wrong Out going intf                          |
| <a href="#">CSCve81377</a> | RSP3:VPLS prgrm'g missing for some neighbors after reload  |
| <a href="#">CSCvd38391</a> | Standby Router: uea_mgr crashed @ ml2vpn_provision_pw_and_ac                                     |
| <a href="#">CSCvd13823</a> | Storm control - L3 Mcast Traffic :: Not all packets are dropped                                  |
| <a href="#">CSCve05859</a> | Exxx EIN: G.8275.1 testing: Clock loop forming between synce and ptp                             |
| <a href="#">CSCve49550</a> | IOX: OOS issue seen with 100Mbps sfp inserted on a SFP combo IM                                  |
| <a href="#">CSCve43404</a> | PTP Clock Creation Fails for Specific Sequence of Triggers                                       |
| <a href="#">CSCve39547</a> | PTP PI counters were not shown properly.   |
| <a href="#">CSCve58737</a> | RSP2 : PTP hybrid BC failed as config applied before netsync locked REF alarm cleared            |
| <a href="#">CSCve83541</a> | RSP3: IOSd Crash on Deleting PTP Loopbacks during ISSU SOAK                                      |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCve87759</a> | RSP3: Link flaps on configuring G8275.1  |
| <a href="#">CSCve12246</a> | RSP3: RSP3 which is locked to GNSS VP is not giving better accuracy                          |
| <a href="#">CSCve16996</a> | Ingress classification misbehaves after removing set qos-group statement from a class.       |
| <a href="#">CSCvc94414</a> | RSP3: Incorrect traffic rate received with specific values of CIR/PIR in HQOS policy         |
| <a href="#">CSCva23389</a> | RSP3: Upon double SSO, LDP neighborship is not coming up on POCH (act-stby)                  |
| <a href="#">CSCve86912</a> | [Counter]: Giant/Runt/Pause Frame counters issue.  |
| <a href="#">CSCvb22120</a> | clocks state is freeruning after SSO   |
| <a href="#">CSCve20630</a> | RSP2 TDM THS : Core generate during reload : unable to initialize the bipc manager           |
| <a href="#">CSCvc50710</a> | RSP2: Standby RP Crash in HA-IDB-SYNC Process on SOAK of Delete Reconfig CEM and ACR         |
| <a href="#">CSCve01357</a> | DCC: DCC check not available in 1+1 APS  |
| <a href="#">CSCvc34890</a> | OCx APS-ACR : RTP is not enabled on FPGA with config copy                                    |
| <a href="#">CSCve53479</a> | LOTR OCx: SNCP - CEM-PG controller is DOWN after PG shut / no shut                           |
| <a href="#">CSCve55240</a> | LOTR OCx: SNCP - PG cem group is not attached to physical leg for 2nd cem-group on same port |
| <a href="#">CSCvf03668</a> | Mid-chain Object Stuck Pending State on TE Tunnel Interfaces and Core Gig Flap SOAK          |
| <a href="#">CSCvc59505</a> | Member link of Port channel gets removed on doing a SSO on the peer end                      |
| <a href="#">CSCvc87303</a> | MTU-9216-OSPF session is not coming up with BDI interface                                    |
| <a href="#">CSCvd46588</a> | RSP3 - EoMPLS PW with BGP LU is pointing to wrong local BGP label                            |
| <a href="#">CSCvd29520</a> | RSP3 - Traffic takes backup remote LFA path even though primary path is available            |
| <a href="#">CSCvc70246</a> | RSP3 - VPLS Tunnel Label incorrectly programmed in ARAD                                      |
| <a href="#">CSCvd22428</a> | RSP3 : HSPW traffic failure after SSO/IM OIR (FEC programmed as 0)                           |

## Resolve Caveats – Cisco IOS XE Everest 16.6.1



**Note** Effective Cisco IOS-XE Everest 16.6.1, the inner DSCP preservation is supported.

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvc25416</a> | UMMT Automated Regression :: Active RSP3-200 crashes after interface shutdown between AG1 and AG2 |
| <a href="#">CSCvd12231</a> | RSP3: Unicast ARP resolution fails in VRRP master state   |
| <a href="#">CSCve22853</a> | ASR900 improper SIGDET register setting could cause traffic failure and link down conditions      |
| <a href="#">CSCvc44999</a> | Polaris RSP3: Pending objects seen Tx Channel & Interface after disabled IM and FP stuck init     |
| <a href="#">CSCva16169</a> | DS1:Traffic not resuming after Ctrl shut then SSO and No shut                                     |
| <a href="#">CSCvc27318</a> | DS3 Path/Line Level PMON Issues for DS3 Port  |
| <a href="#">CSCvc54203</a> | Post ISSU : DCR remains in UNKNOWN state  |
| <a href="#">CSCuz89518</a> | T3 AIS: Implementing structure aware DS3 SATOP  |
| <a href="#">CSCuw81521</a> | EnM IoT: Crash is seen post SSO while changing the IM slot position                               |
| <a href="#">CSCux45450</a> | ASR900: OC3 IOMD CPUHOG on SOAK Test of SONET Shut and No Shut                                    |
| <a href="#">CSCvb45433</a> | SLOS reported when we shutdown ais-shut enabled in SDH and SONET mode                             |
| <a href="#">CSCvb03156</a> | TU-AIS : SHUT/NO-SHUT operation on SONET CTRLR altering the VC12 alarm                            |
| <a href="#">CSCvd00780</a> | 8275.1: PTP Packets are being dropped without untagged EFP on a tagged EFP interface              |
| <a href="#">CSCvc77491</a> | [RSP3-STORM-CONTROL]:Storm Control kicks by default if attached on ge0/2/0 in RSP3                |
| <a href="#">CSCvc40326</a> | HSPW : pw programming going for toss and traffic gets dropped after int flap                      |
| <a href="#">CSCva24546</a> | MPLS TE : 1-2 ms traffic loss when backup interface state is toggled                              |
| <a href="#">CSCvd22428</a> | RSP3 : HSPW traffic failure after SSO/IM OIR (FEC programmed as 0)                                |
| <a href="#">CSCvd96938</a> | RSP3 crashes @ tbn_lookup, uea_cef_get_leaf   |
| <a href="#">CSCvd12082</a> | RSP3-mlacp: %FMFP-3-OBJ_DWNLD_TO_DP_FAILED: SIP0: fman_fp_image: atom_xconnect xid 0x408110       |
| <a href="#">CSCvb76749</a> | RSP3: ARP resolution failure for the next hop when traffic coming from IPSec Tunnel               |
| <a href="#">CSCvb62526</a> | RSP3:Mac-address is leaked from VC to wrong BD with shut/noshut AC                                |
| <a href="#">CSCvd57077</a> | RSP3:Traffic Fails on FRR backup path while Primary is Active.                                    |
| <a href="#">CSCux48983</a> | SR: RSP2 sends out corrupted pkts with UMMT TI-LFA 5 label push, L3VPN, L2VPN SRTE FRR scenarios  |
| <a href="#">CSCvb67543</a> | uea mgr crash @"uea_mpls_atom" upon flapping core A/A Poch interface of peer box                  |

| Caveat ID Number           | Description  |
|----------------------------|--|
| <a href="#">CSCvd55076</a> | UMMT: RLFA FRR - High convergence on shutting the core link  |
| <a href="#">CSCvb55216</a> | VPLS: LDP flap after SSO leads to 100% traffic loss  |
| <a href="#">CSCvc49106</a> | Crash @ uea_igmpsn_send_update_route_msg   |
| <a href="#">CSCvd32237</a> | RSP2 : MLDPv4 Full scale no DI programming on HE   |
| <a href="#">CSCvc72446</a> | RSP2 : MLDPv4 P2MP inconsistent behaviour on triggers  |
| <a href="#">CSCvd00444</a> | RSP2 : MLDPv4 P2MP No DI Issue   |
| <a href="#">CSCvc39154</a> | [inband]RCY in met chain on bud  |
| <a href="#">CSCvd28433</a> | ASR-900: By removing and adding auto neg at Cu interfaces leads to PTP malfunction                   |
| <a href="#">CSCvd12047</a> | G8275.1: syncE drift when PTP is removed from G8275.1 TBC.   |
| <a href="#">CSCvd69590</a> | G8275.1_RSP3: accuracy is ~500nsec when it uses to 10GE IM on first time boot                        |
| <a href="#">CSCvc53794</a> | RSP3: PTP over MPLS support  |
| <a href="#">CSCvd00614</a> | RSP3: BFD is flapping when removing PTP config   |
| <a href="#">CSCve14324</a> | ASR 907 / RSP3C : port level shaper is counting packets twice.                                       |
| <a href="#">CSCvd34788</a> | ASR903 with RSP3 might crash with reason bulk sync failure   |
| <a href="#">CSCvc95602</a> | ASR903 SDH counter errors  |
| <a href="#">CSCvd79657</a> | ENTITY-MIB table entries missing for E1/T1 ports on the IMA16D card for ASR903                       |
| <a href="#">CSCvd38689</a> | Memory leak found @ dsx3_init_t1, cx3_init_e1  |
| <a href="#">CSCvc25980</a> | Traceback spa_send_aps_cmd on hard IM OIR on work active MRAPS1+1 Uni                                |
| <a href="#">CSCvc80817</a> | WRT: LOF/LOMP alarms seen while provisioning of T1/E1 interfaces in OC3 IM                           |
| <a href="#">CSCvc67481</a> | cpwCTDMPperfCurrentTable not dumping with ACR configuration  |
| <a href="#">CSCvc74964</a> | IPC channel hogging due to alarm flooding on cable looping for APS ports                             |
| <a href="#">CSCvb53371</a> | License OIR issue: failed port is coming UP and accessible   |
| <a href="#">CSCvc79065</a> | LOTR OCx: UPSR - Error message seen when PG is unconfigured and reconfigured again                   |
| <a href="#">CSCvd17937</a> | LOTR OCx: UPSR - PUNEQ seen on UPSR intf of PE2(remote) upon unconfig/config PG e2e after SSO of PE1 |
| <a href="#">CSCvd46410</a> | OCx: ACR/UPSR - Virtual Controller Shut/No-Shut not working due to License rejection                 |
| <a href="#">CSCvb78285</a> | OCx: Iomd crash on Active RSP post SSO of admin down IM  |

| Caveat ID Number           | Description   |
|----------------------------|---|
| <a href="#">CSCvb55300</a> | Port-lic: Port licensing cmds Not synced to HA when IM is shut                                |
| <a href="#">CSCuy11711</a> | TIM-S, TIM-P, TIM-V, B1, B2, B3 fields are not showing on show controller output              |
| <a href="#">CSCvc21158</a> | Traffic is flapping on channel when W port is deleted from ACR group                          |
| <a href="#">CSCvb13590</a> | ASR900:In OC3 IM Winpath BUS ERROR is observed due to invalid multiclass number in the packet |
| <a href="#">CSCvd04381</a> | Loopback local at tug levle e1 or t1 doesnt handle the Alarm condition                        |
| <a href="#">CSCvb82613</a> | Tunnel/IGP down on SSO due to ingress VOQ packet drop   |
| <a href="#">CSCuz89582</a> | VCOP: B1/B2/B3 errors not detected  |
| <a href="#">CSCvc41851</a> | ASR900 : Binos Logs (tracelogs) time stamps are not in sync with IOS/Binos Time stamp         |
| <a href="#">CSCvd02443</a> | Copy of 8K cem circuits Cem circuits to reach HA sync takes longer time                       |
| <a href="#">CSCvc68648</a> | RSP3-mlacp: Traffic drops seen upon POA failover with PW-grouping                             |
| <a href="#">CSCvd51482</a> | Traffic loss seen in endpoint_sso_after_path_protection_trigger Flex-LSP script RSP3, v165    |
| <a href="#">CSCvb62564</a> | UMMT :: VPN Traffic drop upto 7 secs is observed for RSP1B SSO                                |
| <a href="#">CSCvd29919</a> | RSP3-Not able to ping external IPv6 address from BINOS.                                       |
| <a href="#">CSCvd81475</a> | PTP : Transparent Clock is not supported on RSP3  |
| <a href="#">CSCvd81474</a> | PTP : Virtual-Port is not supported on RSP2   |
| <a href="#">CSCvd22452</a> | Cylon manager crashes while defaulting the running SLA's interface                            |
| <a href="#">CSCvd12333</a> | ISIS: FRR with unnumbered interface leads to traffic loss until TI-LFA repair path is removed |



## CHAPTER 4

# Restrictions and Limitations

- IPsec is not supported in Cisco IOS XE Everest 16.6.1 release.
- In-Service Software Upgrade (ISSU) is not supported in the Cisco IOS XE Everest 16.6.1 release.
- The **ip cef accounting** command is *not* supported on the router.
- Crash may be observed on the router when:
  - EoMPLS, CEM, ATM and IMA Pseudowire Redundancy (PW-redundancy) configurations exist while switchover and fail-back of the pseudowires are being triggered, and the **show platform hardware pp active pw eompls** command is executed.
- Configuration sync does *not* happen on the Standby RSP when the active RSP has Cisco Software Licensing configured, and the standby RSP has Smart Licensing configured on the router. If the active RSP has Smart Licensing configured, the state of the standby RSP is undetermined. The state could be pending or authorized as the sync between the RSP modules is not performed.
- Evaluation mode feature licenses may not be available to use after disabling, and enabling the smart licensing on the ASR 903 RSP2 module. A reload of the router is required.
- Ingress counters are not incremented for packets of the below format on the RSP3 module for the 10 Gigabit Ethernet interfaces, 100 Gigabit Ethernet interfaces, and 40 Gigabit Ethernet interfaces:

### Packet Format

MAC header---->Vlan header---->Length/Type

When these packets are received on the RSP3 module, the packets are not dropped, but the counters are not incremented.

- ISSU is not supported between a Cisco IOS XE 3S Release and the Cisco IOS XE Everest 16.6.1.
- The following table lists the traffic flow information:

**Table 14: Permissible Traffic Rate on RSP3**

| Packets (in bytes) | Supported Traffic Flow Line Rate |
|--------------------|----------------------------------|
| 64                 | < 70%                            |
| 90                 | < 90%                            |
| 95                 | < 95%                            |

| Packets (in bytes) | Supported Traffic Flow Line Rate |
|--------------------|----------------------------------|
| >100               | 100%                             |

- Effective with Cisco IOS XE Everest 16.6.1, the Port-channel (PoCH) scale is reduced to 24 from 48 for Cisco ASR 900 RSP3 module.



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**Note** The PoCH scale for Cisco ASR 907 routers is 48.

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