Restrictions and Caveats in Cisco IOS XE 3.9 Releases

This chapter provides information about restrictions and caveats in Cisco IOS XE 3.9 releases.

Note We recommend that you view the field notices for the current release to determine whether your software or hardware platforms are affected. You can access field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.

This chapter contains the following sections:

Limitations and Restrictions

The following limitations apply to the Cisco ASR 903 Router in IOS XE Release 3.9(0)S and later:

TDM Limitation

- The **configure replace** command is not supported for TDM interfaces.

ATM IMA Limitation

- You can create a maximum of 16 IMA groups on each T1/E1 interface module.

Bidirectional Forwarding Detection Limitations

- The minimum supported timer value for software-based BFD sessions is 200 ms x 3 (using a multiplier of 3). The router supports up to 64 offloaded BFD sessions using a 200 ms x 3 timer.
- The Cisco ASR 903 Router supports hardware offloading of BFD echo mode packets for up to 255 sessions. The router handles additional BFD echo mode sessions in software.

Note You cannot convert more than 255 normal BFD sessions to echo mode BFD sessions; the router reaches the offload limit and you must remove and reconfigure the remaining sessions.

- The minimum supported timer value for offloaded BFD echo mode sessions is 3.3 ms.

- In Release 3.9, the router keeps hardware and software-handled BFD echo mode sessions active during ISSU. Releases prior to 3.9 do not maintain hardware-offloaded BFD echo mode sessions during ISSU.
- If you downgrade from 3.9 to a prior release with a BFD echo mode configuration, you must increase the timer to 200ms or greater.

Bridge Domain Interface Limitation

- The **mtu** command is not supported on BDI interfaces; however the **ip mtu** command is supported.

Clocking and Timing Limitations

- Only a single clocking input source can be configured within each group of eight ports (0-7 and 8-15) on the T1/E1 interface module using the network-clock input-source command.
- Synchronous Ethernet clock sources are not supported with PTP. Conversely, PTP clock sources are not supported with synchronous Ethernet. However, you can use hybrid clocking to allow the router to obtain frequency using Synchronous Ethernet and phase using PTP.
- PTP over Ethernet is not supported in multicast mode; only unicast mode is supported
- G.8265.1 telecom profile is not supported for PTP over Ethernet.
- The Cisco ASR 903 Router does not support a mix of IPv4 and Ethernet clock-ports when acting as a transparent clock or boundary clock.
- Out-of-band clocking and the **recovered-clock** command are not supported.
- The Synchronization Status Message (SSM) is not currently on OC-3 and OC-12 interfaces.
- End-to-end Transparent Clock is not supported for PTP over Ethernet.

Dying Gasp Limitations

The Cisco ASR 903 Router supports dying gasp under the following scenarios:

- Ethernet OAM is disabled
- Interface is shut down
- Interface enters error-disabled state
- Router reload
- Dying Gasp is not supported in the event of a power failure.

EFP Limitations

- Trunk EFPs are not supported on port channel interfaces.
- Up to 1000 VLANs are supported for trunk EFP over etherchannel traffic.

Ethernet IM Limitations

- The Cisco ASR 903 Router does not support the Facilities Data Link (FDL) on Ethernet interfaces.
- The Cisco ASR 903 Router does not support the **mac-address** command on Gigabit Ethernet interface modules.
- 10 Gigabit Ethernet interface modules are not supported in slots 4 and 5.
- When you install a Gigabit Ethernet IM in the topmost interface module slot (slot 5), the last interface (interface GigabitEthernet0/5/0) is not operational; the port is reserved for internal communication.

- When you configure the copper and SFP Gigabit Ethernet interface modules on a router with redundant RSPs, the **speed** and **duplex** commands are not visible in interface configuration mode until you apply a **shutdown/no shutdown** to the interface.
- Fragmentation is not supported with Multicast traffic.
- The SFP-GE-T module supports only 100 Mbps and 1000 Mbps speeds.
- Load balancing using an odd number of port-channel member links is not supported.

IP Multicast Limitation

- Bandwidth-Based Call Admission Control (CAC) feature is not supported.

IPv6 Limitations

The following limitation applies when using IPv6 on the Cisco ASR 903 Router:

- IPv6 Neighbor Discovery (ND) cache timer expiry is 4 hours. To prevent the neighbour adjacency from being deleted after the timer expires:
  - configure hardware based BFD sessions with the neighbours, or
  - configure static IPv6 neighbours, or
  - configure the **ipv6 nd cache expire timer refresh** command.

IS-IS Limitations

- IS-IS over IPv6 is not supported on VRF instances.
- Only one IS-IS process is permitted when you configure IS-IS with the **address-family ipv6** and **bfd-all-interfaces** commands.
- The IS-IS total and per-stream convergence time increases as the number of prefixes increases.
- The Cisco ASR 903 Router supports up to 3000 IS-IS nodes.

MLPPP Limitations

The following limitations apply when using MLPPP on the Cisco ASR 903 Router:

- All links in an MLPPP bundle must be on the same interface module.
- All links in an MLPPP bundle must be of the same bandwidth.
- The Cisco ASR 903 Router supports a maximum of 16 links per bundle
- To change the MLPPP bundle fragmentation mode between enabled and disabled, perform a **shutdown/no shutdown** on the bundle.
- LFI is not supported
- Multiclass MLP is not supported
- The Cisco ASR 903 Router supports MLPPP statistics with the following limitations:
  - Packet counters on the bundle display the number of fragments rather than packets.
  - Control packets are accounted on the bundle.
- If you increase the maximum transmission unit (MTU) size on an MLPPP interface to a value higher than the maximum received reconstructed unit (MRRU) value on the peer interface, this can bring the MLPPP tunnel down. To restore the tunnel, perform a shutdown/no shutdown on the interface.

MPLS VPN Limitation

- MPLS VPN (L3VPN) Fragmentation does not function properly if an access interface has a higher MTU value than a core interface. To ensure that fragmentation functions correctly, configure the core interface MTU with a value that exceeds the access interface MTU and relevant headers.

OC-3 IM Limitations

- The **configure replace** command is not supported on the OC-3 IMs.
- MPLS-TP is not supported over POS interfaces.
- Multicast is not supported on OC-12 interfaces.
- DS0 channelization is not currently supported.
- MPLS is supported only on PoS interfaces; MPLS on T1/E1 links is not supported.
- IP-FRR and BFD-triggered FRR are not supported on MPLS over POS links.
- Fragmentation is not supported with Multicast traffic on PoS interfaces.
- QoS is not supported for Multicast traffic on PoS interfaces.
- QoS is supported on POS interfaces on optical interface module.
- Three-level QoS policies are not supported on OC-3/OC-12 serial, MLPPP, and PoS interfaces. You can only apply two-level QoS policies.
- The Synchronization Status Message (SSM) is not currently on OC-3 and OC-12 interfaces.

Pseudowire/AToM Limitation

- The Cisco ASR 903 Router supports ATM over MPLS N-to-one cell mode for a single ATM Virtual Channel Connections (VCCs) or Permanent Virtual Circuits (PVCs) to a pseudowire, but does not support mapping to multiple VCCs or PVCs.
- The Cisco ASR 903 Router does not support ATM over MPLS one-to-one cell mode.
- The Cisco ASR 903 Router supports pseudowire ping using the CW method; pseudowire ping using the TTL method is not supported.
- The Cisco ASR 903 Router supports a maximum of 2000 pseudowires in any combination.
- The following features are not currently supported on pseudowire connections:
  - Ethernet VLAN to Ethernet VLAN L2VPN interworking (bridged and routed modes)
  - Ethernet VLAN to ATM AAL5 L2VPN Interworking (bridged and routed modes)

The following pseudowire (PW) features are not supported over MPLS-TP connections:

- ATM OAM Cell Emulation for ATM AAL5 over MPLS on PVC and in VC Class.
- BFD / VCCV over ATM AC over MPLS TP
- Ethernet port to ATM AAL5 PVC L2VPN Interworking (bridged and routed modes)
- MIB support including PW-TDM-MIB, PW-ATM-MIB, and PW-CESOPSN-MIB
- N:1 PVC Mapping with non-unique VPI (N>1)

QoS Limitations

For a description of QoS features and limitations on the Cisco ASR 903 Router in Release 3.9S, see http://www.cisco.com/en/US/docs/routers/asr903/software/guide/chassis/Release3.9.0S/ASR903-Chassis-SW-39.html

Software Upgrade Limitation

We recommend you set the **interface-module-delay** value to 150 or greater in order to ensure sufficient time for IM software upgrades.

Subinterfaces Limitation

The Cisco ASR 903 Router does not support subinterface configurations except on ATM interfaces.

You can configure similar functionality using multiple Ethernet Virtual Connections on an interface. For more information, see Configuring Ethernet Virtual Connections on the Cisco ASR 903 Router.

T1/E1 IM Limitations

- Inverting data on the T1/E1 interface is not supported—Inverting the data stream using the invert data interface command is not supported.
- Bit error rate test (BERT) patterns have limited support—Currently, only the 2^11, 2^15, 2^20-O153, and 2^20-QRSS patterns are supported for BERT.
- If you issue the **no card type** command on the controller, you must reload the router in order to configure a new **card type** value.

Caveats in Cisco IOS XE 3.9S Releases

Caveats describe unexpected behavior. Severity 1 caveats are the most serious caveats. Severity 2 caveats are less serious. Severity 3 caveats are moderate caveats and only select severity 3 caveats are included in this chapter.

This section describes caveats in Cisco IOS XE 3.9S releases. The following information is provided for each caveat:

- Symptom—A description of what is observed when the caveat occurs.
- Conditions—The conditions under which the caveat has been known to occur.
- Workaround—Solutions, if available, to counteract the caveat.

Note If you have an account on Cisco.com, you can also use the Bug Toolkit to find select caveats of any severity. To reach the Bug Toolkit, log in to Cisco.com and go to http://www.cisco.com/pcgi-bin/Support/Bugtool/launch_bugtool.pl. (If the defect that you have requested cannot be displayed, this may be due to one or more of the following reasons: the defect number does not exist, the defect does not have a customer-visible description yet, or the defect has been marked Cisco Confidential.)

The *Dictionary of Internetworking Terms and Acronyms* contains definitions of acronyms that are not defined in this document:

http://docwiki.cisco.com/wiki/Category:Internetworking_Terms_and_Acronyms_(ITA)

The following sections describe the open and resolved caveats in 3.9S Releases:

- Open Caveats—Cisco IOS XE Release 3.9(2)S, page 6
- Resolved Caveats—Cisco IOS XE Release 3.9(2)S, page 6
- Open Caveats—Cisco IOS XE Release 3.9(1a)S, page 14
- Resolved Caveats—Cisco IOS XE Release 3.9(1a)S, page 18
- Open Caveats—Cisco IOS XE Release 3.9(0)S, page 27

- Resolved Caveats—Cisco IOS XE Release 3.9(0)S, page 31

Open Caveats—Cisco IOS XE Release 3.9(2)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.9.2S.

- CSCue20035

  Symptom: Virtual circuit (VC) status goes down after reload.

  Conditions: This issue occurs when reloading the core side trunk EFP BDI with port channel using cross connect. LDP comes up but VC status goes down.

  Workaround: On core side, use EVC bridge-domain BDI with port channel instead of trunk EFP BDI with port channel.

- CSCue67267

  Symptom: High traffic drop on Stateful Switchover (SSO). Double dip on SSO.

  Conditions: This issue occurs occasionally (one in five iterations) on Cisco ASR 903 Router with MVPN scale setup.

  Workaround: There is no workaround.

- CSCuf89283

  Symptom: Connectivity Fault Management (CFM) sessions configured on pseudowire continue to flap.

  Conditions: This issue occurs when route flaps quick enough to prevent bringing down of the pseudowire.

  Workaround: Bring down the pseudowire and bring it back up again.

- CSCuh94841

  Symptom: 10 Gigabit Ethernet interface flaps without trigger causing traffic to switch to protected label-switched path (LSP).

  Conditions: This issue occurs when the script is run for continuous SSO.

  Workaround: There is no workaround.

Resolved Caveats—Cisco IOS XE Release 3.9(2)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.9.2S.

- CSCud61551

  Symptom: Serial Number of the RSP in slot 1 does not display in the **show inventory** command output.

  Conditions: This issue occurs under unknown conditions.

  Workaround: Reload the router.

- CSCue29865

  Symptom: Values do not display for OC-12 mode after shutting the IM bay.

  Conditions: This issue occurs after shutting the IM bay. Values are not displayed for OC-12 mode, but the values are displayed for the Gigabit Ethernet card.

Workaround: There is no workaround.

- CSCue32016

  Symptom: On IM online insertion and removal (OIR) or Router reload with shutdown on CE controller, Ethernet (core) does not transmit any packets.

  Conditions: This issue occurs when remote peer does not assert alarm indication signal (AIS) downstream.

  Workaround: There is no workaround.

- CSCue44876

  Symptom:

  - Packet-over-SONET (PoS) interface on the high availability (HA) system continues flapping
  - Complete traffic is dropped
  - PoS interface of the remote Cisco ASR 903 Router remains in up or down state.

  Conditions: This issue occurs on activating SSO after an IM OIR when configuring PoS interface in OC-12 mode.

  Workaround: There is no workaround.

  More Info: This issue is not seen in OC-3 mode.

- CSCue61850

  Symptom: Maintenance End Points (MEPs) start flapping when **no shutdown** command is issued on EVC bridge-domain (BD) or port channel interface running CFM.

  Conditions: This issue occurs when more than 256 CFM sessions are configured.

  Workaround: Configure fewer CFM sessions (50 to 100).

- CSCue67835

  Symptom: OSPF flaps when you set the dead interval timer as 6 seconds and hello interval as 2 seconds.

  Conditions: This issue is observed when you perform an SSO.

  Workaround: Use the default OSPF hello timers.

- CSCue69818

  Symptom: The **show inventory** command displays a wrong serial number.

  Conditions: Inventory is managed by the "main serial number". However, when using the **show inventory** command for Redundant Power System (RPS) and IM, "PCB serial number" is displayed instead of the "main serial number".

  Workaround: Use the **show diag all eeprom detail** command to list the correct serial number.

- CSCue75372

  Symptom: Time-Hog traceback seen after router or IM reloads.

  Conditions: This issue occurs on bootup of IM or router.

  Workaround: There is no workaround.

- CSCue97180

  Symptom: The Cisco ASR 903 Router sometimes crashes when used as a multicast VPN (mVPN) Encap PE Router.

Conditions: This issue occurs in an mVPN network on exceeding core multicast distribution tree (MDT) scale of 1K with more than 20 virtual routing and forwarding (VRFs) on a flap access interface of a PE Router.

Workaround: Do not exceed more than 1K core MDT scale Work around for a crash is unavailable.

- CSCuf02007

  Symptom: Continuous SEMHOG is seen on the router console with incremental sync failure and IOMD crashes on OC-3 IM.

  Conditions: Router receives continuous SEMHOG for multiple processes.

  Workaround: There is no workaround.

- CSCuf06001

  Symptom: When TCAM limit is reached, statistics do not work accurately.

  Conditions: This issue occurs when the TCAM entries exceed the limit during dynamic modification of service-policy.

  Workaround: There is no workaround.

- CSCuf43992

  Symptom: The router crashes if you configure local span.

  Conditions: This issue is observed when you configure local span on the router.

  Workaround: Use another Encapsulated Remote Switched Port Analyzer (ERSPAN) configuration to work as local span with source and destination ERSPAN session configured in one router.

- CSCuf45656

  Symptom: Cisco ASR 903 Router crashes with segmentation fault.

  Conditions: This issue occurs during multicast convergence on EFP's configured with split horizon.

  Workaround: There is no workaround.

- CSCuf53527

  Symptom: Class of Service (CoS) inner value gets copied into the CoS value.

  Conditions: This issue occurs when configuring Q-in-Q without rewrite service instance.

  Workaround: To ensure CoS inner value does not get copied, apply QoS policy-map.

- CSCuf65301

  Symptom: Micro flaps observed on the router.

  Conditions: This issue is seen when system is kept idle for hours.

  Workaround: There is no workaround.

- CSCuf79397

  Symptom: F1 is stuck in init state after the standby RSP reloads.

  Conditions: This issue occurs on a reload or OIR of the standby RSP.

  Workaround: Reload the standby RSP again.

- CSCuf81085

  Symptom: After you use the **shutdown** and **no shutdown** commands on the controller of PE, IMA VCs go down.

  Conditions: This issue is observed after using the **shutdown** and **no shutdown** commands on the OC3 controller on PE routers.

Workaround: Use the **shutdown** and **no shutdown** commands on the controller.

- CSCuf89767

  Symptom: When IGMP snooping is enabled, multicast traffic is not accurately filtered. Layer 3 multicast traffic floods all ports of the bridge-domain.

  Conditions: This issue occurs when start-up configuration includes port channels along with TEFP/EFP as part of the bridge-domain.

  Workaround: There is no workaround.

- CSCug05239

  Symptom: Traffic drops on the router.

  Conditions: This issue occurs when configuring multichassis Link Aggregation Control Protocol (MLACP) switchover with Ethernet over Multiprotocol Label Switching (EOMPLS).

  Workaround: Configure port channel with EOMPLS.

- CSCug10116

  Symptom: Traffic and ping do not flow through ATM interfaces on multiple controllers.

  Conditions: Series of **shutdown** and **no shutdown** commands on the controller or interface lead to the failure.

  Workaround: There is no workaround. To recover from failure, perform an IM OIR.

- CSCug18185

  Symptom: When the interfaces comes up after bootup, traffic received on the Cisco ASR 903 Router serial interfaces are not switched to the BDI connected to Ixia.

  Conditions: This issue occurs when ARP resolution of the Ixia connected interface IP address fails.

  Workaround: Ping the Ixia port connected to the Cisco ASR 903 Router from another router connected to the Cisco ASR 903 Router using Gigabit Ethernet interface.

- CSCug18630

  Symptom: When you perform an OIR on the standby and active RSPs, CMAND crashes.

  Conditions: This issue is observed after performing multiple standby OIRs and bringing the standby machine up.

  Workaround: There is no workaround.

- CSCug21145

  Symptom: When system crashes, sometimes core files are generated with CRC errors.

  Conditions: This issue occurs when the system crashes under stress conditions.

  Workaround: There is no workaround.

- CSCug27073

  Symptom: Multicast replication is improper when 255 outgoing interfaces (OIF's) are configured.

  Conditions: This issue occurs when:

  - Perfuming IM OIR (soft/hard)
  - Clearing MRoutes (sometimes)
  - Enabling/disabling IGMP Snooping

  Workaround: There is no workaround.

- CSCug31414

  Symptom: Multicast traffic drops on changing interface configuration from TEFP to VPLS over port channel (PoCH).

  Conditions: This issue occurs when converting a layer 2 interface to layer 3; and then configuring IP PIM and IP address in quick succession.

  Workaround: Use **shutdown** and **no shutdown** command on the interface.

  More Info: The problem occurs only when the adjacency create notification is received earlier than the convert to layer 3 notification.

- CSCug44762

  Symptom: The POS interface stays down after using the **shutdown** and **no shutdown** commands.

  Conditions: This is issue is observed when you use the **shutdown** and **no shutdown** commands on the POS interface.

  Workaround: Use the **shutdown** and n**o shutdown** commands on the controller.

- CSCug61357

  Symptom: ISIS adjacency and BFD stay down after using the **shutdown** and **no shutdown** commands.

  Conditions: This issue is observed in R-LFA configurations.

  Workaround: Use the **shutdown** and **no shutdown** commands again.

- CSCug63862

  Symptom: When configured, SATOP interfaces does not come up.

  Conditions: This issue occurs on configuring SATOP on the router.

  Workaround: Use IM OIR.

- CSCug74071

  Symptom: When scaling up MPLS-TE tunnels to full scale (512), sometimes the following message is displayed: "%FMFP-3-OBJ_DWNLD_TO_CPP_FAILED: SIP1: fman_fp_image: adj 0x9fdd, Flags Incomplete download to CPP failed".

  Conditions: This issue occurs when MPLS-TE tunnels are scaled to full scale (512) on the router in a single instance.

  Workaround: There is no workaround.

- CSCug83807

  Symptom: Multicast traffic is dropped as TCAM entries are encountered.

  Conditions: This issue occurs when TCAM entries are encountered.

  Workaround: There is no workaround.

- CSCug83842

  Symptom: ATM/IMA path level controllers go down with alarms LP-AIS and T15 LOMF in the Cisco ASR 903 Router.

  Conditions: This issue occurs on either on bootup of the router or OIR of the IM. Along with these alarms, B1/B2 alarms are reported at the controller level. As B1/B2 alarms are high priority alarms, the path level controllers stays down.

  Workaround: Reload IM or use the **shutdown** and **no shutdown** command on the main controllers.

- CSCug84544

  Symptom: POS interface output displays wrong counter values.

  Conditions: This issue occurs when using PPP encapsulation.

  Workaround: There is no workaround.

- CSCug86963

  Symptom: Bidirectional Forwarding Detection (BFD) is unable to resolve neighbor Address Resolution Protocol (ARP).

Conditions: This issue occurs when software BFD is configured with static client; and IM OIR or reload is performed.

Workaround: Use manual ping.

- CSCug91295

  Symptom: UDP based ACLs do not work after a router reload.

  Conditions: This issue occurs after reload.

  Workaround: Remove and add the ACL.

- CSCug96958

  Symptom: Inverse Multiplexing for ATM (IMA) interfaces stay up even when you use the **shutdown** command to shut down the controller.

  Conditions: This issue is observed when you use the **shutdown** command on the OC-3 controller.

  Workaround: Use the **no shutdown** command bring up the controller and interfaces.

- CSCug97639

  Symptom: IPv4 VRF ping fails when disabling IPv6 unicast-routing globally.

  Conditions: This issue occurs when IPv6 unicast-routing is disabled.

  Workaround: Enable IPv6 unicast-routing

- CSCug99750

  Symptom: The Cisco ASR 903 Router crashes when it accesses unpopulated data structures.

  Conditions: This issue is observed when you perform an IM OIR and use the **shutdown** and **no shutdown** commands.

  Workaround: There is no workaround.

- CSCuh00343

  Symptom: Node runs out of memory if node has more 1K pseudowires. Pseudowire can be either Ethernet over MPLS (EoMPLS) or Virtual Private LAN Services (VPLS).

  Conditions: Access instability cause these memory leaks. If network is stable then chances of observing this issue is minimal.

  Workaround: There is no workaround.

- CSCuh06740

  Symptom: Router gets reloaded after performing a soft OIR.

  Conditions: This issue is observed after you perform a soft OIR or subsequent SSOs.

  Workaround: There is no workaround.

- CSCuh16011

  Symptom: FMAN-FP crashes when you perform ab IM OIR.

  Conditions: This issue is observed when you perform multiple IM OIRs with around 65 BFD sessions.

  Workaround: Reload the router.

- CSCuh18073

  Symptom: In a domain with 2 BGP exit points acting in Active or Repair mode, traffic would be exiting the domain through Repair path BGP PE instead of exiting through Active path BGP PE.

  Conditions: This issue occurs in the following conditions:

  - Environment has 2 BGP exit points
  - A change in one of the core links to the primary BGP exit point results in Repair BGP PE becoming Active BGP PE and vice versa

  In this scenario, even after BGP convergence, data packets would traverse through previous primary BGP PE (now repair path PE).

  Workaround: There is no workaround.

- CSCuh18503

  Symptom: BFD IPv6 sessions may not come up between Cisco ASR 9000 and Cisco ASR 903 Routers.

  Conditions: This issue is observed when the packets sent from Cisco ASR 903 Router have invalid UDP checksums.

  Workaround: There is no workaround.

- CSCuh27117

  Symptom: Traffic loss of about six to eight seconds is observed when you perform an SSO.

  Conditions: This issue is observed when you perform the switchover before IM OIR or the interface flaps.

  Workaround: There is no workaround.

- CSCuh33255

  Symptom: Traffic does not flow through most multilink PPP (MLP) interfaces post In-Service Software Upgrade (ISSU).

  Conditions: This issue occurs on HA system performing ISSU or killing IOMD process followed by switchover.

  Workaround: Use **shutdown** and **no shutdown** command on MLP interface to recover the traffic.

- CSCuh59723

  Symptom: On removing one out of the two member links from the MLP bundle, traffic and ping fail.

  Conditions: This issue occurs with T1E1/OC-3 IM when using **shutdown** and **no shutdown** command or when removing cable from one of the member serial interface.

  Workaround: Reload the router.

- CSCuh65426

  Symptom: Circuit emulation (CEM) packets use class default after **shutdown** and **no shutdown** on CEM circuit, with or without QoS policy

  Conditions: After removing and adding QoS policy on CEM circuits, followed by CEM interface flap, CEM packets neither exit with default EXP marking of 5 nor exit with the marking specified in ingress qos policy. This occurs after reloading the router with policies intact on CEM interface and only in the presence of Hot-Standby Psuedo Wires (HSPW).

  Workaround: There is no workaround.

- CSCuh77595

  Symptom: On using **configure replace** command, the standby router crashes.

  Conditions: This issue occurs when replacing the TE tunnel configuration with Startup configuration using **configure replace** command.

  Workaround: There is no workaround.

- CSCuh77762

  Symptom: The TenGigabitEthernet port operates at one gigabit speeds in WAN-PHY mode on Cisco ASR 903 Routers. This leads to a huge amount of output drop.

  Conditions: This issue is observed if a QoS policy is configured on the TenGigabitEthernet interface.

  Workaround: There is no workaround.

- CSCuh86102

  Symptom: The interface stops forwarding traffic.

  Conditions: This issue is observed when the TenGigabitEthernet interface is in WAN-PHY mode and R0 is active.

  Workaround: Use R1.

- CSCuh99117

  Symptom: Cisco ASR903 Router packets drop for some of the prefixes in MPLS network.

  Conditions: This issue occurs when MPLS L3 VPN is configured on Cisco ASR903 Router with MVPN template.

  Workaround: There is no workaround.

- CSCui08269

  Symptom: Error objects are seen and traffic does not flow through HSPW VC's.

  Conditions: This issue occurs on using **do clear mpls ldp ne** command when more than 100 HSPW VC's are configured.

  Workaround: Remove and add the EFP.

- CSCui16418

  Symptom: After SSO, 10 Gigabit Ethernet interface flaps and traffic is dropped.

  Conditions: This issue occurs during SSO switchover on the10 Gigabit Ethernet interface of a HA system.

  Workaround: There is no workaround.

Open Caveats—Cisco IOS XE Release 3.9(1a)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.9(1a)S.

- CSCuc33798

  Symptom: IMA links goes down with over subscription traffic.

  Conditions: This issue is seen with over subscription traffic

  Workaround: Use line rate.

- CSCuc42085

  Symptoms: The 1PPS output from the ASR 903 is out of range when compared to the 1PPS output of the PTP master clock.

  Conditions: This issue occurs when the router is configured as a hybrid clock (ordinary/boundary) and there are intermediate hops between the router and the PTP master clock.

  Workaround: There is no workaround.

- CSCue29809

  Symptom: Mismatch in the MIB object entSensorThresholdEvaluation value for CiscoEntitySensorMIB.

  ```
  entSensorThresholdEvaluation.1086.1 = false(2) (value should be true)
  entSensorThresholdEvaluation.1086.2 = false(2) (value should be true)
  ```

  Conditions: This issue occurs in normal working conditions.

  Workaround: There is no workaround.

- CSCue29865

  Symptom: Values do not display for OC-12 mode after shutting the IM bay.

  Conditions: This issue after shutting the IM bay. Values are not displayed for OC-12 mode, but the values are displayed for the Gigabit Ethernet card.

  Workaround: There is no workaround.

- CSCue35103

  Symptom: CPU goes high on executing **show mac-address-table** command.

  Conditions: Scaled MAC entries are learned over BD.

  Workaround: Execute the command with reduced term length.

- CSCue42139

  Symptom: The Precision Time Protocol (PTP) state is stuck in acquiring state.

  Conditions: This issue occurs when the active RSP is removed and the T3 time-stamping is stuck and the PTP stays in acquiring state.

  Workaround: Reload the IM or unconfigure and configure the PTP.

- CSCue63229

  Symptom: IMA interfaces flap frequently every 1530 minutes. The issue does not occur on member links.

  Conditions: This issue occurs when you increase the number of member links in the IMA group to 16.

  Workaround: There is no workaround.

- CSCue67835

  Symptom: OSPF flap with aggressive timers (2sec hello interval, 6sec dead interval).

  Conditions: This issue occurs after performing an SSO.

  Workaround: Use the default OSPF hello timers.

- CSCue75372

  Symptom: Time-Hog traceback seen after router or IM reloads.

  Conditions: This issue occurs on bootup of IM or router.

  Workaround: There is no workaround.

- CSCue87629

  Symptom: INFRA-6-PROCPATH_CLIENT_HOG: IOS shim client “iosd-nile” messages may appear on the console.

  Conditions: This issue occurs when a **shutdown** followed by a **no shutdown** command is executed on the G8032 ring interface of a peer or local device.

  Workaround: There is no workaround.

- CSCue92393

  Symptom: CEM SatoP circuits with the router in Core remain in down state after initial configuration. The **show cem circuit** command output on ASR903 shows that the circuits are down.

  Conditions: This issue occurs when the CEM SatoP circuits are configured using script via tcl and tftp_config. This forces a lot of configuration dump on router console simultaneously. The issue may also be seen after router reload with saved CEM Satop configurations.

  Workaround: Perform a controller **shutdown** followed by a **no shutdown** on OC-3 IM on the router.

- CSCuf05090

  Symptom: Standby IM resets continuously with running configuration synchronization failure.

  Conditions: This issue occurs after a downgrade of all IMs and the IMS are removed from the slot and a upgrade is performed.

  Workaround: Reload the router completely.

- CSCuf35542

  Symptom: PFM is fails for about 5minutes after OIR on the master.

  Conditions: This issue occurs after OIR is performed two times on the master

  Workaround: Wait for 5-6 minutes after the OIR.

- CSCuf79397

  Symptom: F1 is stuck in init state after the standby RSP reloads.

  Conditions: This issue occurs on a reload or OIR of the standby RSP.

  Workaround: Reload the standby RSP again.

- CSCug05491

  Symptom: The router drops traffic on VPLS circuits.

  Conditions: This issue occurs when you take the following actions:

  - Configure REP with VLAN load balancing
  - Configure VPLS VFI on the VLANs
  - Issue an stateful switchover (SSO)

  Workaround: There is no workaround.

- CSCug14420

  Symptom: Traceback observed while performing OIR of IM.

  Conditions: This issue occurs while performing OIR T1E1 IM

  Workaround: There is no workaround.

- CSCug21352

  Symptom: The convergence time is more than 2secs on the router.

  Conditions: This issue occurs when convergence time is more than expected. It takes around 2.5 seconds to converge from Active to backup path with 450 CEM interfaces.

  Workaround: There is no workaround.

- CSCug70182

  Symptom: ASR903 -IMA8S port stays up without inserting a fiber.

  Conditions: This issue is observed when GLC-FE-100FX optic is used

  Workaround: There is no workaround.

- CSCug77786

  Symptom: The router develops false notifications, syslog messages and cefcFRUInserted traps when performing RP card switchover. The false notifications create false alarms in Prime Network.

  Conditions: This issue occurs after RP card switchover on the router.

  Workaround: There is no workaround.

- CSCug81561

  Symptom: Convergence time is more than 50ms with EoMPLS after SSO.

  Conditions: This issue occurs when port channel and BDI configurations exist on the router and SSO convergence time is more than 50ms.

  Workaround: There is no workaround.

- CSCug83807

  Symptom: Multicast traffic is dropped as TCAM entries are encountered.

  Conditions: This issue occurs when TCAM entries are encountered.

  Workaround: There is no workaround.

- CSCug91295

  Symptom: UDP based ACLs do not work after a router reload.

  Conditions: This issue occurs after reload.

  Workaround: Remove and add the ACL.

- CSCug94257

  Symptom: The **show ptp port running detail** command shows the wrong stream id.

  Conditions: This issue occurs under normal working conditions.

  Workaround: Use the **show plat soft ptp** command get the correct stream id.

Resolved Caveats—Cisco IOS XE Release 3.9(1a)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.9(1a)S.

- CSCtw76473

  Symptom: The router displays packet drops on some VPLS pseudowire virtual circuits (VCs) on the disposition side.

  Conditions: Occurs under the following conditions:

  - The core network is running MPLS-TP tunnels
  - There is an SSO switchover on the remote end or an LDP neighbor reset on the peer end.

  Workaround: There is no workaround.

- CSCud09142

  Symptom: Fp active error messages seen when interface tunnel TP is removed when HA is configured.

  Conditions: This issue is seen after removing tunnel TP interface.

  Workaround: There is no workaround.

- CSCud30554

  Symptom: Object download failure messages are displayed on console during object cleanup. This may cause a possible leak in the hardware resource if the objects are not cleaned up.

  Conditions: This issue is seen during the Virtual Circuit deletion.

  Workaround: There is no workaround.

- CSCud42914

  Symptom: Object download messages are observed when default values are se on the MPLS core interface.

  Conditions: This issue occurs when default values are se on the MPLS core interface.

  Workaround: There is no workaround.

- CSCud59242

  Symptom: Traffic stops forwarding for 10-20 groups out of 1000 groups when IGMP snooping is enabled.

  Conditions: This issue occurs when outgoing Layer 2 interface flaps very quickly. This issue occurs when executing the **shutdown** command followed by a **no shutdown** command.

  Workaround: Disable IGMP snooping.

- CSCue10037

  Symptom: After executing the **shutdown** command followed by a **no shutdown** the member link crashes

  Conditions: This issue occurs when CFM Trunk EFP with 256 sessions with an interval of 3.3ms is configured and **shutdown** command followed by a **no shutdown** command is executed.

  Workaround: Configure 50-100 CFM sessions.

- CSCue13187

  Symptom: Duplicate multicast traffic is received after replacing the bridge-domain ID with new bridge-domain ID.

Conditions: This issue occurs when the bridge-domain ID is changed from an existing bridge-domain ID to a new bridge-domain ID.

Workaround: If the bridge-domain needs to be changed, remove the old service instance and configure new service instance with new bridge-domain.

- CSCue15570

  Symptom: Traffic does not resume on a POS interface.

  Conditions: This issue is seen after the router reloads with POS configurations.

  Workaround: Perform the following:

  - Shutdown the interface and then execute a **no shutdown** on the TDM interface
  - Shutdown the controller then execute a **no shutdown** on the TDM controller
  - Soft OIR the OC3 IM.

- CSCue19836

  Symptom: Controller flaps are observed on CE routers with Multirouter Automatic Protection Switching (MR-APS) configured on PE routers with CEM circuits.

  Conditions: This issue occurs when controllers on CE routers flaps when is MR-APS configured on PEs having CEM circuits.

  Workaround: There is no workaround.

- CSCue20607

  Symptom: Port-channel load balances traffic on member-links which are in hot-standby or down state also resulting in traffic blackholes.

  Conditions: This issue is seen when there are redundant member-links which are in hot-standby or down state.

  Workaround: There is no workaround.

- CSCue24854

  Symptom: 70 msec loss is observed after performing an IM OIR in a remote LFA ring.

  Conditions: This issue occurs when doing soft OIR.

  Workaround: Perform a hard OIR for a less than 50 msec loss.

- CSCue34781

  Symptom: The policer in the parent policy-map of an hqos policy attached to an interface stops working after the child policy policer is dynamically modified.

  Conditions: The policy-map attached to the interface is a hierarchical policing policy. Both the child and the parent policy-map have policing actions in their classes. It is seen that the policing in the parent class does not work correctly after the policing action in the child policy is modified dynamically

  Workaround: Remove and re-attach the policy-map on the interface

- CSCue50128

  Symptom: FMFP download failure occurs on reaching 1980 odd number even though 2000 ternary content addressable memory (TCAM) space is allocated for ACLs in the IP template.

  Conditions: This issue occurs in normal conditions when the scale reaches 1980.

  Workaround: There is no workaround.

- CSCue51682

  Symptom: The REP protocol flaps, as indicated by the following error messages:

  ```
  *Feb  8 06:51:38.857: %REP-4-LINKSTATUS: GigabitEthernet0/0/1 (segment 10) is
  non-operational due to neighbor not responding
  *Feb  8 06:51:39.096: %REP-4-LINKSTATUS: GigabitEthernet0/0/1 (segment 10) is
  operational.
  ```

  Conditions: Occurs under the following conditions:

  - The router is sending traffic using the incremental MAC address table
  - Fast LSL is configured using a 200ms timer.
  - The router is configured with more than 2000 MAC addresses.

  Workaround: Remove fast LSL from the REP configuration.

- CSCue54649

  Symptom: Traceback is seen on new active RSP console after performing a SSO.

  Conditions: This issue is seen when OC-3 IM is configured on OC-12 mode. The POS and serial interfaces mayor may not be configured.

  Workaround: There is no workaround.

- CSCue61803

  Symptom: IMs do not get powered off when router is reloaded.

  Conditions: This issue is seen occasionally on reload.

  Workaround: There is no workaround.

- CSCue65149

  Symptom: OBJ messages are observed when changing the interval in EVC BD offload cases (scale).

  Conditions: This issue occurs when 3.3ms session interval and MEPS is configured on the router and then the MEPS and domain configuration is removed and a session interval of 10ms interval is configured.

  Workaround: Configure a low session interval.

- CSCue66137

  Symptom: The IOMD crashes with CPU hog messages.

  Conditions: This issue occurs with OC-3 interface module and traffic is sent over a multilink bundle with packet size greater than 600 byte.

  Workaround: There is no workaround.

- CSCue73478

  Symptom: Standby RSP Sync LED become holdover after switchover.

  Conditions: This issue occurs after a switchover.

  Workaround: There is no workaround.

- CSCue77596

  Symptom: Cos value gets wrongly marked for a QinQ packet

  Conditions: This issue occurs on a service instance with dot1q encapsulation and no rewrite is configured on the interface.The policy map attached in the ingress has marking in it.

  Workaround: There is no workaround.

- CSCue81082

  Symptom: FMAN OBJ download failure seen for (*,G/m) entries on ACL change.

  Conditions: This issue occurs when ACL is configured on the RP and the ACL is deleted or added.

  Workaround: There is no workaround.

- CSCue83621

  Symptom: Policy-map stops working on removing class default class dynamically.

  Conditions: This issue occurs when policy-map is attached to target and class-default of top level is deleted dynamically.

  Workaround: Detach and reattach the policy-map on target.

- CSCue88974

  Symptom: Standby RSP appears as UNKNOWN in **show inventory** command and alarm is raised. The **show facility-alarm** command status reports the alarm.

  Conditions: This issue occurs after OIR is performed on the standby RSP.

  Workaround: There is no workaround.

- CSCue89503

  Symptom: Power supply status become “CRITICAL” after removing or inserting of the power supply.

  Conditions: This issue is seen after multiple OIRs.

  Workaround: There is no workaround.

- CSCue90867

  Symptom: Machine check errors and kernel crash was seen on SSO.

  Conditions: This issue occurs after performing SSO.

  Workaround: There is no workaround.

- CSCue91533

  Symptom: Traffic through VPLS pseudowire is flooded due to MAC aging.

  Conditions: This symptom is observed when bridge descriptor index (internal index) assigned to MAC address exceeds 20480.

  Workaround: There is no workaround.

- CSCue93989

  Symptom: Less traffic received then expected rate for IMA link.

  Conditions: This issue occurs when IMA group is configured with 16 OC-3 T1 links. 888 pvcs are created and traffic is sent to only one pvc.

  Workaround: There is no workaround.

- CSCue94811

  Symptom: Process crash on standby does not generate a core file.

  Conditions: This issue occurs on normal conditions.

  Workaround: There is no workaround.

- CSCuf02518

  Symptom: IPv4 Traffic gets affected on IPv6 ACL applied interface.

Condition: This issue occurs if IPv4 ACLs and IPv6 ACLs in the system share the same label. The IPv4 traffic on the interface on which IPv6 ACL is applied is impacted.

Workaround: There is no workaround.

- CSCuf05039

  Symptom: I2C_WRITE and MDIO_READ/WRITE error messages are seen on the router.

  Conditions: This issue occurs on IM hard or soft OIR.

  Workaround: There is no workaround.

- CSCuf07508

  Symptom: The Gigabit Ethernet port on IMA8S may not come up after reload at times.

  Conditions: This issue occurs when the router is reloaded multiple times.

  Workaround: Perform an IM OIR.

- CSCuf42166

  Symptom: BERT Errors and Path Code Violations counter keeps incrementing.

  Conditions: This issue occurs when connected to E1E1 IM or the second PHY.

  Workaround: Connect to first PHY.

- CSCuf43275

  Symptom: The router does not detect or support traffic through GLC-FE-100EX and GLC-FE-100ZX transceivers.

  Conditions: This issue occurs under normal conditions.

  Workaround: There is no workaround.

- CSCuf48156

  Symptom: Local fault is seen on a 10 Gigabit Ethernet port.

  Conditions: This issue occurs when the interface is not shut and fibre is not connected.

  Workaround: Shutdown the interface

- CSCuf51429

  Symptom: Fast-Reroute FMFP-3-OBJ_DWNLD_TO_CPP_FAILED message seen on the console.

  Conditions: This issue occurs on shutting the link between the routers.

  Workaround: There is no workaround.

- CSCuf51462

  Symptom: Remote maintenance end points (MEP)s do not learn Port MEP on PC member links.

  Conditions: This issue occurs when port MEPs in PC member links are configured and remote MEPs do not learn it.

  Workaround: Configure Ethernet Virtual Connections (EVC) bridge domain and MEP PC member links.

- CSCuf51509

  Symptom: WRED counters for CS0 do not display in **show policy-map interface** command.

  Conditions: This issue is observed when **show policy-map interface** command is executed.

  Workaround: There is no workaround.

- CSCuf61365

Symptom: VC Counters do not increment On IM OIR followed by SSO.

Conditions: This is seen on HA system when IM OIR is followed by SSO switchover is performed.

Workaround: There is no workaround.

- CSCuf64704

  Symptom: "%MPLS-3-OUT_OF_LABEL3_SPACE: SIP0: nile_mgr: Out of resource to create" labels errors are seen on the console.

  Conditions: This issue is seen with scaled configurations, when LDP peer goes down and recovers.

  Workaround: Reduce the scale.

- CSCuf65040

  Symptom: The 1G or 10G IM may go in out of service state after a hard OIR of the IM.

  Conditions: This issue occurs after a hard OIR is performed.

  Workaround: Perform a another hard OIR or a SSO switchover followed by a soft OIR.

- CSCuf66022

  Symptom: The 10 Gigabit Ethernet interface status goes down on one side.

  Conditions: This issue occurs after shutting down the Ten Gigabit Ethernet interface and SSO is performed.

  Workaround: Perform a **shutdown** followed by a **no shutdown** 10 Gigabit Ethernet interface

- CSCuf74072

  Symptom: Seeing CRC errors on SFP IM with CU SFP.

  Conditions: This issue occurs when the CU SFP is configured with 100Mbps speed.

  Workaround: There is no workaround.

- CSCuf83316

  Symptom: Traffic loss of more than 1sec was observed during router reload.

  Conditions: This issue occurs on issuing **reload** command in middle router with R-LFA in RING topology.

  Workaround: There is no workaround.

- CSCuf83453

  Symptom: The **show ethernet service instance stats** command displays "0" at Egress stats counters.

  Conditions: This issue is seen after using **show platform hardware pp active asic stats** command.

  Workaround: Reload the router.

- CSCuf83886

  Symptom: Label exhaust message is seen even on valid case if policy is configured before xconnect is configured on scaled configuration.

  Conditions: This issue occurs when a service-policy is configured before configuring xconnect on the router that has consumed close to max labels.

  Workaround: First configure xconnect and then configure service-policy

- CSCuf93174

  Symptom: Packet Over SONET (POS) interfaces counters do not display correctly.

  Conditions: This issue occurs after SSO is performed. The issue is observed on the standby router.

  Workaround: There is no workaround.

- CSCug05647

  Symptom: Interface counters not getting updated with IP traffic.

  Conditions: This issue occurs when pinging back to back connected interfaces; the interface counters stay at 0.

  Workaround: Reload the device.

- CSCug07795

  Symptom: NQATM errors seen while adding new entries to ACL control region.

  Conditions: This issue occurs on bootup. The last 2 ACL control entries fail to get programmed.

  Workaround: There is no workaround.

- CSCug10134

  Symptom: Traffic is not flooded on port-channel by default, as IGMP does not support port-channel traffic.

  Conditions: This issue occurs when the incoming port is a Layer3 and outgoing is port is a BDI.

  Workaround: There is no workaround.

- CSCug16244

  Symptom: Traffic will not flow through few EoMPLS VCs.

  Conditions: This issue is seen with scaled EoMPLS configurations.

  Workaround: There is no workaround.

- CSCug22122

  Symptom: IOMD crash is seen for any IM on the router.

  Conditions: The IOMD crash is seen when **show platform software agent iomd 0/1 driver stats** command is executed to verify driver statistics.

  Workaround: There is no workaround.

- CSCug23372

  Symptom: Manager process crash occurs while configuration replace operation is performed.

  Conditions: This issue occurs while moving from REP to G8032.

  Workaround: Avoid performing a configuration replace.

- CSCug26991

  Symptom: OSPF session goes down after applying the policy on EC main interface, EC EVC and EC Trunk EFP.

  Conditions: This issue occurs after applying the policy EC main interface which has OSPF session enabled. The OSPF session goes down after application of Egress policy.

  Workaround: Apply policy directly on EC member links.

- CSCug40852

  Symptom: Link failure in L3VPN core takes a long time to converge with BGP PIC configuration.

Conditions: This issue occurs when BGP PIC core and PIC edge is configured and there are more than one ECMP core paths to reach backup BGP peer.

Workaround: Configure only one core path to reach both primary and repair BGP Peers in a BGP PIC Core and Edge configuration. If there are more than one equal cost physical paths to reach BGP peers, then adjust the configuration by increasing the distance for all paths except one.

- CSCug44908

  Symptom: Traffic goes down after applying policy-map without ingress classification.

  Conditions: This issue occurs when without classifying the traffic in the Ingress, this policy map is applied in the egress port.

  Workaround: Edit the policy map by changing the bandwidth percentage number.

- CSCug45557

  Symptom: Ingress marking does not work when Egress marking has a match on qos-group.

  Conditions: This issue occurs when ingress marking is not working when Egress marking matches on qos-group.

  Workaround: There is no workaround.

- CSCug45618

  Symptom: OSPF does not come up with policy map having 2 different EFP classes and configured on 2 different interfaces.

  Conditions: This issue is observed only when same policy map is applied on 2 interfaces with one EFP in the policy map.

  Workaround: Remove the policy map from one of the interfaces to bring up the OSPF.

- CSCug46010

  Symptom: The non IP packets get classified under the second class instead of class-default when two class-maps one having match on L4 ACL and other having match on L3 ACL with permit ip any any is configured.

  Conditions: This issue occurs when two class-maps one matching on L3 ACL match and another matching on TCP or UDP are configured.

  Workaround: There is no workaround.

- CSCug46157

  Symptom: When an existing policer is deleted and added back, the policer fails to take effect.

  Conditions: This issue occurs when the policing was dynamically deleted and added.

  Workaround: Remove the policy-map and re-apply on the interface or EFP.

- CSCug57503

  Symptom: ESP crash observed on the router.

  Conditions: This issue occurs after executing the **show platform hardware qfp** command on the active feature packet-trace configuration.

  Workaround: Do not execute unsupported command.

- CSCug61357

  Symptom: The ISIS router fails to come up after issuing a **shutdown** followed by a **no shutdown** command.

  Conditions: This issue occurs when RLFA and BFD configutations exist on the router.

Workaround: Issue a **shutdown** followed by a **no shutdown** command again.

- CSCug61508

  Symptom: Classification based on ACL in the child does not work

  Conditions: This issue occurs when the parent classification is EFP.

  Workaround: There is no workaround.

- CSCuf65301

  Symptom: Micro flaps observed on the router.

  Conditions: This issue is seen when system is kept idle for hours.

  Workaround: There is no workaround.

- CSCug67955

  Symptom: The standby FP is stuck in init state.

  Conditions: This issue occurs after ISSU is performed.

  Workaround: There is no workaround.

- CSCug71853

  Symptom: BFD flaps are observed on the router.

  Conditions: This issue is seen when traffic flows at line rate.

  Workaround: Keep traffic at around 90% line rate.

- CSCug72785

  Symptom: OSPF flap observed on the router.

  Conditions: This issue occurs after IM OIR followed by SSO.

  Workaround: There is no workaround.

- CSCug73776

  Symptom: The standby router crashes on bootup when highly scaled configurations and when L2VPN and multicast are configured.

  Conditions: This issue occurs on reloading the router 3-4 times with highly scaled configurations and L2VPN and multicast are configured.

  Workaround: There is no workaround.

- CSCuh18073

  Symptom: In a domain with 2 BGP exit points acting in Active or Repair mode, traffic would be exiting the domain through Repair path BGP PE instead of exiting through Active path BGP PE.

  Conditions: This issue occurs in the following conditions:

  - Environment has 2 BGP exit points
  - A change in one of the core links to the primary BGP exit point results in Repair BGP PE becoming Active BGP PE and vice versa

  In this scenario, even after BGP convergence, data packets would traverse through previous primary BGP PE(now repair path PE).

  Workaround: There is no workaround.

Open Caveats—Cisco IOS XE Release 3.9(0)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.9(0)S.

- CSCud06772

  Symptom: IPv6 neighbor discovery does not function properly after stateful switchover (SSO); the router loses traffic and eventually recovers.

  Conditions: Occurs with IPv6 traffic after stateful switchover (SSO).

  Workaround: Configure software BFD sessions.

- CSCud29491

  Symptoms: Simultaneous policy can be applied

  Conditions: On physical interface (having efps) and on efps (on that physical interface)

  Workaround: None. As it is an unsupported config.

- CSCud35732

  Symptoms: The router does not apply egress CFM MIP filtering.

  Conditions: Occurs when you overwrite a MIP configuration using the **ethernet cfm mip level** command.

  Workaround: Instead of overwriting the MIP level configuration, remove and re-apply the configuration.

- CSCue34781

  Symptoms: The policer in the parent policy-map of an hqos policy attached to an interface stops working after the child policy policer is dynamically modified.

  Conditions: Occurs when the policy-map attached to the interface is a hierarchical policing policy and both the child and parent policy-map have policing actions in their classes. The policing in the parent class does not work correctly after you dynamically modify the policing action in the child policy.

  Workaround: Remove and re-attach the policy-map on the interface

- CSCue41416

  Symptoms: IOMD CPUHOG messages seen on ASR903

  Conditions: Seen when ISSU upgrade is performed between two XE39 images

  Workaround: None

- CSCue42139

  Symptoms: The ptp state is stuck in acquiring state all the time.

  Conditions: When pulled out the active RSP, the T3 time-stamping is stuck and the ptp state stays in acquiring state all the time.

  Workaround: Reload the IM or unconfigure or configure the ptp.

- CSCue46274

  Symptoms:

  Traffic flow stops over a particular prefix configured on TDM interface and Crash while executing show platform prefix command for the same prefix

  Conditions: Configure route via a TDM interface and reload the router once.

Workaround: No workaround

Further Problem Description: With only Gigabit Ethernet interfaces this problem is not seen. Only when we have TDM interface we see the problem**.**

- CSCue63229

  Symptoms: IMA interfaces flap frequently every 15–30 minutes. The issue does not occur on member links.

  Conditions: Occurs when you increase the number of member links in the IMA group to 16.

  Workaround: There is no workaround.

- CSCue65149

  Symptoms: When changing the interval in evc bd offload cases(scale) getting OBJ messages.

  Conditions: First configure the 3.3ms interval and meps after that removed the meps,domain and configure 10ms interval and meps will hit this issue.

  Workaround: Configure very less session

- CSCue66019

  Symptoms: output errors will be seen on mlppp interfaces.

  Conditions: With 90% and above Line rate traffic with mix MTU patterns (IMIX), output errors will be seen on the mlppp interface.

  Workaround: No. The issue is seen for IMIX pattern traffic with 90% & above Line rate traffic.

- CSCue67245

  Symptoms: MFIB counters for some of the (S,G) are not updated on ASR903

  Conditions: Is seen when we scale the number of Sources. Issue is seen for 2000 sources joining 1 group. No impact to traffic

  Workaround: There is no workaround.

- CSCue67267

  Symptoms: High Traffic drop seen on SSO Double dip seen on SSO

  Conditions: Issue is seen occassionally (one in 5 iterations) on ASR903 with MVPN scale setup.

  Workaround: There is no workaround.

- CSCue67995

  Symptoms: Nile manager crashes while flapping mpls enabled interface on the peer end nodes.

  Conditions: 6K routes L3VPN routes and 600 L2VPN sessions with flaps can crash nile manager of ASR903 at uea_untyped_dqueue_remove_elem

  Workaround: No workaround

- CSCue70575

  Symptoms: Kernel crash is observed

  Conditions: On reload kernel crash is seen

  Workaround: There is no workaround.

- CSCue72481

  Symptoms: IP address and Meps accepting in the same interface

  Conditions: configured the IP address and Port mep accepting in the same interface.

Workaround: There is no workaround.

- CSCue75775

  Symptoms: fman fp crash causes router to crash with scale of 16000 queues on rsp1b

  Conditions: large scale qos configurations

  Workaround: There is no workaround.

- CSCue76109

  Symptoms: DMM reports delay of 0ns.

  Conditions: Have Y1731 DMM sessions with CFMoXconnect and MPLS TE tunnels in the core.

  Workaround: No Workaround. Having a single path between the 2 MEPs can avoid this.

- CSCue77596

  Symptoms: cos vlaue gets wrongly marked for a qinq packet

  Conditions: a service instance with dot1q encap and no rewrite is configured on the interface... the policy map attached in the ingress has marking in it... the packet should not be ,marked in this case... but on asr903 its getting marked wrongly

  Workaround: There is no workaround.

- CSCue86047

  Symptoms: Pkts Not Classified On Removing/Re-applying Marking action dynamically

  Conditions: A class-default policy with marking action is applied and nn removing/re-applying exp marking action of the class-default, packets are not hitting the class-default and policy-map counters do not increment. This issue is seen on any type of interface.

  Workaround: Instead of removing & adding marking action alone, detach the policy itself from the interface, modify the marking action and re-attach the policy to the interface.

- CSCue87175

  Symptoms: BFD sessions may flap on an ASR903 router.

  Conditions: With around 2000 global IPv4 prefixes and with traffic running, when a core-facing interface is shutdown on a router in the ring, BFD flaps may be seen on another router in the ring.

  Workaround: There is no work-around known as yet.

- CSCue87629

  Symptoms: INFRA-6-PROCPATH_CLIENT_HOG: IOS shim client 'iosd-nile' messages may appear on the console. **Conditions:** When a shut/no shut of G8032 ring interface of Peer or local device is done.

  Workaround: No workaround.

- CSCue90720

  Symptoms: IPCP state mismatch and member link state mismatch in ppp multlilink on back to back to connection. Traffic will get dropped

  Conditions: Bundle having maximum links in it and perform a SSO. find steps to repro

  Workaround: none

- CSCue96512

  Symptoms: RP crashes if punt/inject keepalives are missed.

Conditions: Punt/inject keepalives are missed and we are not holding a TTY while writing to punt/inject log file.

Workaround: none

- CSCue96886

  Symptoms: Complete MAC Address space is not available on the RSP

  Conditions: Removing the Service instance with the MAC Addresses learnt on the BD.

  Workaround: Reload the Router is only workaround.

- CSCue97114

  Symptoms: Shut down the trunk efp in core side, meps are learnt for UP MEP

  Conditions: Configured UP Mep evc bd (core side trunk efp) when i shut the trunk efp in core remote meps are learnt for UP MEP.

  Workaround: Configure evc bd in core side

- CSCuf05090

  Symptoms: Standby will be resetting continuously with running config sync failure.

  Conditions:

  Downgrade all IMs and take the IMS out of slot.After booting up with XE39 image , insert IMs one by one. While upgrade was happening , this issue happened.Im got crashed and stanby was resetting continuously with SYNc failed.

  Workaround: Reload the box completely.

- CSCuf20275

  Symptoms: On interoperating with an ASR901 router, BFD sessions may flap as the ASR903 router may some times not send BFD control messages.

  Conditions: With around 200 global IPv4 prefixes, BFD session running in software with echo OFF and seen even without any data traffic.

  Workaround: There is no work-around known as yet.

- CSCuf44077

  Symptoms: show interface output is showing wrong speed values after sso

  Conditions: when we use the 100M SFP’s

  Workaround: There is no functionality impact because of this. HW module reset will resolve this.

- CSCuf56723

  Symptoms: Interface LED glows green with shut.

  Conditions: After SSO

  Workaround: No workaround.

- CSCuf60346

  Symptoms: IOMd Crash On Performing SSO Switchover With Interfaces Shut

  Conditions: Have ATM/IMA interfaces shut. Perform switchover and notice IOMd crash on new Active

  Workaround: No workaround

- CSCuf64404

Symptoms: IOMD crash will be seen when flap is performed on remote router. The flap can be by shut/no shut or IM oir.

Conditions: IOMD crash seen on multiple mlp bundle flap becoz of memory leaks in wintegra.

Workaround: None.

- CSCuf64625

  Symptoms: CRC Errors reported on RevD IM

  Conditions: IM OIR or SSO

  Workaround: No workaround.

- CSCuf64695

  Symptoms: Error message seen on PE ASR903 :- *Mar 22 11:51:35.929 IST: %FMFP-3-OBJ_DWNLD_TO_CPP_FAILED: SIP1: fman_fp_image: atom_xconnect xid 0x1004013, ifh 16793619, dirty 0x1, state 0x2 download to CPP failed

  Conditions: CEM configs on OC3IM and/or T1E1IM. Reported with CESOP circuits and scale of about 88. Seen with less scale also. Seems to be a non-function impacting message.

  Workaround: None.

- CSCuf64811

  Symptoms: Serial Links on CEs are in up/down state, when configured with CEM CeSop circuits on PEs.

  Conditions: Configure CEM cesop circuits over MPLS core. Note that the serial interfaces on CE routers are UP/UP. Perform a SSO on PE2 router.

  Workaround: Perform another SSO on PE2 router and issue is solved.

- CSCuf65012

  Symptoms: Seeing syslog for the port 0/5/0 saying it is down which is used for HFPGA

  Conditions: IM oir of Slot 4 or Slot 5

  Workaround: No Functionality impact and no workaround.

- CSCuf74072

  Symptoms: Seeing CRC errors on SFP IM with CU SFP.

  Conditions: When the CU SFP is configured with 100Mbps speed.

  Workaround: No workaround.

Resolved Caveats—Cisco IOS XE Release 3.9(0)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.9(0)S.

- CSCts14725

  Symptoms: mep does not come up sometimes, error messages always.

  Conditions: change cc interval on the fly.

  Workaround: None.

- CSCts95896

  Symptoms: The router stops passing traffic on EVC interfaces.

Conditions: Occurs when you issue the default interface command and immediately restore the configuration. The issue occurs with configurations containing either a large number of EFPs or features that impact EFP programming at a lesser scale, such as QoS.

Workaround: Wait for the router to clear the old EFP configuration before adding a new configuration.

- CSCtu39377

  Symptoms: "sh running" , "sh romvar" in exec mode and "set" command in rommon mode, displays multiple entries for the license being used.

  Conditions: ASr903 with appropriate license and boot level set.

  Workaround: No workaround.

- CSCtx44513

  Symptoms: The router stops passing traffic on an interface

  Conditions: Occurs when you remove all classes from a QoS policy-map attached to an interface.

  Workaround: Remove and re-attach the policy-map.

- CSCtx44688

  Symptoms: Cannot configure policing and marking together in the same class of the egress policy-map.

  Conditions: Set and police statements together in the same class of a policy is rejected at the CLI.

  Workaround: In order to achieve marking and policing at the ingress we can use a conditional policer but this is not supported at the egress.

- CSCtx70302

  Symptoms: Traceback and Log message seen on performing a multilink bundle shut on ASR903 as described in the summary.

  Conditions: Traffic should be flowing over the multilink bundle. Multiple ways to trigger the same issue, but traffic and mlppp bundle remain common to each scenario.

  Workaround: None. Harmless traceback.

- CSCty73682

  Symptoms: A small percentage of IPv6 packets that should be blocked by an interface ACL is instead pass through

  Conditions: In certain conditions, when an IPv6 ACL is applied to an interface, a small percentage of IPv6 packets that would otherwise be dropped, will instead bypass an ACL and get through.

  Workaround: None

  PSIRT Evaluation: The Cisco PSIRT has assigned this bug the following CVSS version 2 score. The Base and Temporal CVSS scores as of the time of evaluation are 5/4.8: https://intellishield.cisco.com/security/alertmanager/cvssCalculator.do?dispatch=1&version=2&vector=AV:N/AC:L/Au:N/C:P/I:N/A:N/E:F/RL:U/RC:C CVE ID CVE-2012-3946 has been assigned to document this issue. Additional information on Cisco's security vulnerability policy can be found at the following URL: http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

- CSCtz20839

  Symptoms: IMA functionality does not work properly.

  Conditions: Occurs after an RSP switchover when the router is running an IMA configuration.

Workaround: Reload the interface module with the IMA configuration.

- CSCtz43467

  Symptoms: Not All CLI's listed under the REP configuration modes are allowed. For e.g The following configurations are allowed but will not work. 1) REP does not work on BDI. 2) More than 1 source ports in a span session.

  Conditions: Seen all the time.

  Workaround: No workaround

- CSCtz65778

  Symptom: The control plane goes down with VPNv6 traffic.

  Conditions: Occurs with 64-byte VPNv6 traffic. The issue only occurs for small, tunnelled packets.

  Workaround: There is no workaround.

- CSCtz87775

  Symptoms: An interface on the OC-3 interface module does not become active.

  Conditions: Occurs when you change the interface mapping between au-4 and au-3 when changing an interface between T1 and E1 operation.

  Workaround: Perform a soft OIR on the interface module.

- CSCua16492

  Symptoms: Some IPv6 multi-hop BFD over BGP sessions flap.

  Conditions: Occurs on port-channel interfaces running IPv6 multi-hop BFD over BGP sessions after you perform an SSO.

  Workaround: There is no workaround.

- CSCua35446

  Symptoms: gig 0/5/0 interface displayed in PRIME software.

  Conditions: System being up.

  Workaround: No workaround.

- CSCua37816

  Symptoms: "DHCP_SNOOP: Failed sending packet out of BD" errors on standby.

  Conditions: DHCP snooping enabled with asr903 as relay with HA system.

  Workaround: No workaround. Wont be seen on standalone system.

- CSCua46443

  Symptoms: Y1731 frames were received and forwarded by STP blocked port and hence database is corrupted.

  Conditions: When 2 or more interfaces are there b/n the devices and only one is forwarding and remaining blocked by STP.

  Workaround: None.

- CSCua49623

  Symptoms: CEM interface becomes inaccessible

  Conditions: When same channel-group number and cem-group number is used for overlapping timeslots this issue is hit

Workaround: Use different timeslots, or make sure channel-group and cem-group numbers are different under the same controller

- CSCua57325

  Symptom: The router displays an OIR SPA error.

  Conditions: Occurs under the following conditions:

  - The router is running offloaded CFM sessions over an xconnect (pseudowire) interface.
  - The router is using a redundant hardware (dual RSP) configuration.
  - The remote router is using a non-redundant (single RSP) hardware configuration.
  - You reload the router.
  - **Workaround:** There is no workaround.

- CSCua61934

  Symptoms: When policy-map with priority in class-default is attached to interface its not getting rejected.

  Conditions: Configure policy-map having priority in class-default. Attach the policy to interface it's not getting rejected.

  - **Workaround:** None known at this time

- CSCua77688

  Symptom: The router experiences remote CFM MEP flapping.

  Conditions: Occurs when the router is connected via a CFM xconnect and the link is running a high traffic rate.

  Workaround: Reduce the rate of traffic.

- CSCua90879

  Symptom: QoS policies with a police statement on the class-default class do not take effect.

  Conditions: Occurs when you apply a police statement to the class-default class within a QoS policy on an ingress EVC interface.

  Workaround: Apply the police statement to a static class, such as class cos0.

- CSCub18160

  Symptom: The router drops traffic on a link twice and displays a remote fault error message.

  Conditions: Occurs when you issue an interface module reset (OIR) while the 10.000M XFP (DWDM Edge performance) or XFP10GER-192IR-L XFPs are plugged into the ten Gigabit Ethernet interface module and active.

  Reloading the router also takes significantly longer when using these XFPs.

  Workaround: There is no workaround.

- CSCub26877

  Symptoms: When Bridge-domain of the efp is changed and the new bridge-domain is not accepted, the old bridge-domain gets rejected.

  Conditions: EVC -BD configuration change.

  Workaround: None

- CSCub33576

  Symptoms: All IMA interfaces does not come up until OIR of IM.

Conditions: When IMA are configured.

Workaround: OIR.

- CSCub33664

  Symptoms: High Delay values seen when using DMM Sesssion on ASR903 post SSO.

  Conditions: Delay values will be higher only after SSO on ASR903.

  Workaround: Remove and reconfigure DMM sessions again post SSO on AR903.

- CSCub38619

  Symptoms: System crashes when COS value for vlan under an EFP is modified.

  Conditions: This happens only when a prior operator attempt to modify the COS value failed. This failure can be due to incompatible efp match conditions on the egress efp.

  Workaround: None

- CSCub41772

  Symptom: Router console is flooded with CPUHOG and EVENTLIB messages.

  Conditions: The issue occurs rarely when you issue multiple interface module reset (OIRs), RSP switchovers (SSO), or reloads while using a configuration with a high number of T1 serial links on the OC-3 interface module.

  Workaround: There is no workaround; however, the messages to not affect router functionality.

- CSCub48129

  Symptoms: CFM CCM's were being sent out on egress interface with cfm disabled.

  Conditions: Configure UP mep on EVC BD.DIsable cfm on the egress interface.

  Workaround: There is no workaround.

- CSCub49985

  Symptoms: MPLS pseudowire ping from the peer to the Cisco ASR 903 fails if the peer is using TTL-based ping.

  Conditions: This symptom occurs when the peer is using TTL-based ping.

  Workaround: There is no workaround.

- CSCub50110

  Symptoms: Tx timer table not programmed after shut/no shut for hardware offload BFD. It is not consistently seen.

  Conditions: The issue is seen while we do shut/no shut on BDI/Physical interface which has BFD configured.

  Workaround: None.

- CSCub50487

  Symptoms: The router accepts a rewrite push statement on an EFP configured with QinQ encapsulation.

  Conditions: Occurs when you configure an xconnect EFP with QinQ encapsulation and a rewrite push statement.

  Workaround: There is no workaround.

- CSCub52571

  Symptoms: Traceback seen on console. This traceback doesn't impact any functionality

Conditions: Traceback seen when BFD is enabled and flapped the interface where IPv6 BGP/OSPFv3/BFD is already UP.

Workaround: No Workaround. This ddts fixes the traceback occurrence.

- CSCub52657

  Symptoms: CPP object download failure messages are seen while creating BDI interface.

  Conditions: The problem is seen when the user tries to configure the BDI interfaces exceeding the platform limit. On asr903 RSP1A and RSP1B the maximum BDI interface limit is 256 and 1024 respectively. When user tries to exceed this limit the error message is seen as download failure on the console, this is not a bug.

  Workaround: Not to exceed the BDI interface limit set for the platform

- CSCub55760

  Symptom: The router displays a Delay Measurement Message (DMM) delay value of 0.

  Conditions: Occurs under the following conditions:

  - You configure an EVC down MEP on a port-channel interface.
  - You dynamically add a member link to a port-channel interface.

  Workaround: Configure PTP synchronization before scheduling DMM.

- CSCub59776

  Symptoms: Router seems hang post removal of startup-config and reload

  Conditions: Router has no startup config present.

  Workaround: The following dialogue was missing to appear on the console.

  --- System Configuration Dialog ---

  Would you like to enter the initial configuration dialog? [yes/no]: % Please answer 'yes' or 'no'.

  Just type no, and start the configuration dialogue later.

- CSCub60668

  Symptom: The router is unable to establish an OSPF session.

  Conditions: Occurs when you enable an OSPF session over an MPLS TP tunnel.

  Workaround: There is no workaround.

- CSCub63072

  Symptom: MPLS convergence can be slower than expected.

  Conditions: Occurs when the router switches to a backup MPLS path in the event of a network failure.

  Workaround: You can configure the following redundancy features to protect against network failures:

  - IPv4 Loop Free Alternate Fast Reroute (LFA FRR)
  - Border Gateway Protocol (BGP) Prefix-Independent Convergence (PIC)
  - MPLS Traffic Engineering (TE)--Fast Reroute (FRR) Link and Node Protection

- CSCub63954

  Symptoms: Speed configurations are rejected. Error message appears on active

  Conditions: HA - Box. Speed configurations are rejected

Workaround: No Workaround.

- CSCub71578

  Symptoms: The router displays traceback and failure messages on the standby RSP.

  Conditions: Occurs after you issue an OIR on the T1/E1 interface module from the active RSP. The issue occurs in a redundant system.

  Workaround: There is no workaround.

- CSCub74338

  Symptoms: The router crashes.

  Conditions: Occurs when you attach an ingress QoS policy-map to an EVC with a rewrite push configuration.

  Workaround: There is no workaround.

- CSCub76908

  Symptoms: If Y1731(DMM or SLM) sessions are configured for UP MEP, where the core facing and access interfaces have different encaps, then Y1731 sessions will not come up

  Conditions: The condition will be same if the encaps are same and if rewrite ingress pop is configured

  Workaround: None

- CSCub80685

  Symptoms: On BDI Shut, if routing traffic continues, it will be punted to the CPU which will flood out the CPU resulting in control plane loss

  Conditions: Ping failure and BFD/OSPF flaps on BDI shut while ipv4/v6 traffic is running while BDI is shut.

  Similar conditions occur on no EFP/BDI configured or no ip address configured.

  Workaround: Stop routing traffic into shut BDI port.

- CSCub84828

  Symptoms: Iosd crash on standby when booting up

  Conditions: Boot up of standby

  Workaround: RSP has to be booted again.

- CSCub85398

  Symptoms: On customer's setup the following error message is seen. Dec 2 15:41:40.970 JST: %NILE_ASIC-2-TCAM_PARITY_ARRAY_ERR: TCAM4 Parity Array Error at Asic: 1 TCAM Index: 0x306D Application: UCASTV4 Region UCAST_32.

  Conditions: No specific condition. There are no any operation or network events at that time.

  Workaround: On reloading the box the message is disappeared.

- CSCub88805

  Symptoms: When alarms are seen it displays as ASR1000 instead of ASR903, no functionality impact, only display issue.

  Conditions: On seeing alarms.

  Workaround: None.

- CSCub88822

Symptoms: NULL_DATA_STRUCTURE traceback is seen on ASR903 console.

Conditions: Issue is seen when OC3IM is present on the box and IM OIR is done on this OC3IM. Usually seen when no configs are present on IM. Quite inconsistent, not always seen.

Workaround: None. The traceback does not affect any functionality.

- CSCuc00853

  Symptoms: ARP requests are not flooded on bridge-domains

  Conditions: Dynamic ARP inspection configured on bridge-domains

  Workaround: None

- CSCuc07697

  Symptoms: BIT-4-OUTOFRANGE: tracebacks flooded on the console.

  Conditions: Configure CFMoTEFP and vlan load-balancing for the BDs part of REP segment. Tracebacks are seen only when there is an untagged efp on the interface and there is an AIS condition.

  Workaround: Do not have BD with untagged EFP on the box.

- CSCuc07747

  Symptoms: On entering "show debugging" command on ios prompt, the following extraneous messages are seen,

  % Invalid input detected at ’^’ marker.

  Conditions: Seen in all conditions.

  Workaround: No workaround. Though this doesn’t have any functionality impact. Only issue is the extra prints.

- CSCuc07759

  Symptoms: ARP responses are dropped

  Conditions: Dynamic arp inspection is configured on the router

  Workaround: None

- CSCuc08098

  Symptoms: Trap config for AAA-SERVER mib is missing.

  Conditions: When a asr903 device is loaded with metroaggrservices license.

  Workaround: None.

- CSCuc12681

  Symptoms: Intermittent packet drops when doing MPLS ping

  Conditions: MPLS ping Rate has to exceed 1Mbps. sweep ping with high range High number of frames with huge pkt size

  This is not applicable to IP icmp ping. Only applicable for MPLS ping.

  Workaround: Try a lower number of frames.

- CSCuc21610

  Symptoms: The console displays a message indicating that offloading is not supported for BFD echo mode.

  Conditions: Occurs when you configure a BFD session in echo mode.

  Workaround: There is no workaround; however, the issue has no functionality impact.

- CSCuc25058

  Symptoms: Forced QL value on BITS port gets overwritten when a new primary clock source with different QL value is selected.

  Conditions:

  Network clocking should be enabled in QL mode and with BITS port configured to output system clock with forced QL value.

  Workaround: Reconfigured the forced Tx QL value on the BITS port after the system switches to clock source with different QL value than the current selected.

  Further Problem Description: When the system selects a new primary clock source, it propagates the QL value of that primary clock source on all the timing ports, so that all timing ports reflect the system QL value. When this update is send the forced TX QL value configured on each port gets overwritten by the system QL Value.

- CSCuc34088

  Symptom: The router passes lower traffic levels when you add links to an IMA bundle and perform IM OIR/router reload.

  Conditions: Occurs when you send traffic above the E1 line rate on one link within an IMA bundle and reset (OIR) the interface module.

  Workaround: Remove and re-apply the IMA interface configuration.

  CSCuc35618

  Symptoms: REP session flaps post SSO and traffic is dropped until the session re-converges after the SSO.

  Conditions: Upon SSO.

  Workaround: None

- CSCuc36241

  Symptoms: The router is unable to select a given PTP clock as a network clock source.

  Conditions: Occurs when you configure PTP as an input network clock source while the slave clock is still in a holdover state. In the holdover state, the slave clock has not yet attempted to establish a frequency lock with a master clock.

  Workaround: Wait for the PTP slave clock to lock to the master clock before configuring PTP as a network clock input source.

- CSCuc36381

  Symptoms: CLI show satellite env and show satellite alarm not displaying any output.

  Conditions: Show satellite env and show satellite alarm CLI is not supported in satellite mode in 4.3.0

  Workaround: Can check the status in ASR9k.

- CSCuc41871

  Symptoms: ATM interfaces stay down during normal operations

  Conditions: 1. Post router reload 2. When peer interface cable is pulled out & put back

  Workaround: Interface reset (shut/no shut)

- CSCuc42002

  Symptoms: The router crashes when configuring the ATM interface, displaying a segmentation fault error.

Conditions: This symptom is observed when you move an OC-3 interface module with an ATM configuration to a different bay and configure an ATM interface on the new bay.

Workaround: There is no workaround.

- CSCuc42117

  Symptoms: The router does not include 0xff03 flag leading bits within ppp fragment messages.

  Conditions: Occurs when the router has not negotiated ACFC.

  Workaround: There is no workaround. Most remote devices should ignore this behavior by design, but some devices may display unexpected behavior, such as for IPCP PROTREJ messages.

- CSCuc43719

  Symptoms: ASR903 with dual RSP may crash.

  Conditions: No specific trigger, but any configuration related to NBAR can make the box hit this issue.

  Workaround: Do not have any NBAR configurations on the box as these are not supported on ASR903.

- CSCuc57130

  Symptom: The router does not apply OC-3 interface module (IM) configurations.

  Conditions: Occurs after an RSP switchover.

  Workaround: There is no workaround.

- CSCuc59386

  Symptoms: Continuous iomd crash on oc3im. Interfaces on oc3im not configurable, error message seen :- stand-by dosen't support this command

  Conditions: Seen on a HA ASR903 setup with oc3im. Seen when a iomd crash happens on active rsp and then standby iomd session handle is not cleared.

  Workaround: Reload the stand-by rsp.

- CSCuc60148

  Symptoms: System is not shutting down upon temperature sensor reaching 'SHUTDOWN' threshold region.

  Conditions: Temperature sensors reached shutdown threshold region

  Workaround: IOS config command has to be explicitly configured to enable this system shutdown behavior. 'facility-alarm critical exceed-action shutdown'

- CSCuc62784

  Symptoms: Traces @ niles_if_count_initialize some times

  Conditions: On performing Reload, Standby Reload, SSO

  Workaround: No workaround. And these traces are displayed on the console and does not have any functionality impact to the system.

- CSCuc64509

  Symptom: ASR903 as PTP master transmits clock class corresponding to holdover state on fresh bootup.

  Conditions: ASR903 is not connected to any external frequency and Phase source and is using freerun internal clock to provide synchronization.

  Workaround: ASR903 PTP master should be locked to external frequency and phase source.

Further Problem Description: ASR903 when locked to internal free-running clock, then ASR903 PTP master function transmits clockclass value 14 which corresponds to holdover state instead of 58 which corresponds to free-running clock.

- CSCuc64899

  Symptom: The router does not learn remote Connectivity Fault Management (CFM) Maintenance Endpoint (MEPs).

  Conditions: Occurs on interfaces with an xconnect statement after a reload on a peer device.

  Workaround: Remove and re-apply the CFM configuration.

- CSCuc66393

  Symptom: The router loses OC-3 interface configurations after an ISSU upgrade.

  Conditions: Occurs on OC-3 serial and POS interfaces after an ISSU software upgrade.

  Workaround: There is no workaround.

- CSCuc66895

  Symptom: Layer 2 traffic loop seen in REP topology for a transient time, when the Cisco ASR 903 which is a part of the REP ring is reloaded.

  Conditions: This symptom is observed when the Cisco ASR 903 is part of an REP ring, and the box is reloaded with saved REP configurations.

  Workaround: Traffic loop is transient, once REP convergence looping is stopped.

- CSCuc68246

  Symptom: The standby IOMD crashes on booting up the standby RSP.

  Conditions: This symptom occurs when booting up the standby RSP with a configuration that is already present.

  Workaround: Boot up the standby without any configurations and start configuration once the standby has reached STANDBY_HOT state.

- CSCuc68462

  Symptom: The router drops PTP traffic.

  Conditions: The issue occurs occasionally when you configure PTP slave clock to receive VLAN-tagged traffic.

  Workaround: There is no workaround.

- CSCuc70509

  Symptom: Packet rate counters i.e. packets per second is not cleared to 0 when interface goes down.

  Conditions: Applies to all TDM interfaces like serial , mlppp , POS , etc. Issue seen on controller shut etc, not seen on interface shut.

  Workaround: None. Should be fixed now.

- CSCuc71410

  Symptoms: Config sync failure but it doesn’t have much of an impact on the service

  Conditions: We have a mac limit configured with action as limit and when the configured limit is exceeded, the standby comes up after the limit is hit

  Workaround: none

- CSCuc71723

  Symptom: The router erroneously accepts a service-policy configuration on a CEM interface and displays it within the running configuration.

  Conditions: Occurs when you configure a service-policy on a CEM interface.

  Workaround: There is no workaround.

- CSCuc74205

  Symptoms: Tracebacks displayed continuously on performing IM OIR

  Conditions: Have CEM, ATM, IMA configured on a TDM IM. Now, on performing IM OIR, notice this traceback continuously on active RSP. This is noticed on performing OIR operation every 2 out of 5 times.

  Workaround: No workaround

- CSCuc81334

  Symptom: The router selects a clock source attached to standby RSP.

  Conditions: Occurs after a stateful switchover (SSO).

  Workaround: Remove and restore the clock source configuration.

- CSCuc81416

  Symptoms: Traces may be seen on active with SNMP configuration

  Conditions: Seen when Hard pull of Standby is done

  Workaround: Do soft reset/ sso switchover

- CSCuc83088

  Symptom: The router drops traffic during stateful switchover (SSO).

  Conditions: Occurs when the router is running HSRP or VRRP; the issue only occurs when the destination MAC address is a virtual MAC (vMAC) address.

  Workaround: Change the traffic priority and detour traffic prior to the SSO.

- CSCuc87791

  Symptom: The router selects a network clock source before the wait-to-restore timer has expired.

  Conditions: Occurs under the following conditions:

  - A clock source fails, triggering the wait-to-restore timer (which specifies how long the before including a restored clock source in the clock selection process.
  - The clock source becomes active and fails a second time before the wait-to-restore time has passed.

  Workaround: There is no workaround; in some cases you can clear the issue by removing and restoring the clock source configuration.

- CSCuc91582

  Symptom: Adding EFP to Bridge-Domain fails and errors are seen when reloading with Cisco IOS XE Release 3.7.1a.

  Conditions: This symptom is observed when reloading the Cisco ASR 903 with Cisco IOS XE Release 3.7.1a, when EFP and PW are in the same Bridge-Domain.

  Workaround: Post reload, remove the EFP configurations, and configure PW first and then EFP.

- CSCuc92953

  Symptom: The RSP crashes.

  Conditions: Occurs under the following conditions:

  - You configure Protocol-Independent Multicast-Sparse Mode (PIM-SM) with a static rendezvous point (RP).
  - You create an EVC port channel on the access side with one member link
  - You create bridge domain interfaces (BDIs) with 1:1 mapping between EVCs and bridge-domains.
  - You use the BDIs to send IGMP v2 static join messages to a single multicast group
  - On the remote device, you create 150 EFPs and map them to the BDIs.
  - You initiate multicast traffic.
  - You set the EFPs to the default configuration and add them to the existing port-channel

  The router crashes.

  Workaround: There is no workaround.

- CSCuc93985

  Symptom: The router initiates an Automatic Protection Switching (APS) switchover during a high availability (HA) stateful switchover (SSO).

  Conditions: Occurs during an HA SSO with single router APS (SR-APS).

  Workaround: There is no workaround.

- CSCuc95716

  Symptom: FPGA software for the OC-3 interface module is not bundled with the XE 3.8 image.

  Conditions: Occurs when upgrading FPGA on the OC-3 interface module.

  Workaround: Manually upgrade the OC-3 FPGA.

- CSCud01855

  Symptoms: APS switchover may occasionally lead to inconsistent/incorrect APS states with CEM config.

  Conditions: Seen when APS is configured with CEM/ATM on IM-4OS on ASR903. Caused due to notifications not being correctly sent to CEM subsystem.

  Workaround: No workaround.

- CSCud01908

  Symptom: Debug commands show pending objects on the Forwarding Manager (FMAN) on the forwarding processor (FP), indicating a failure to download configurations from the Route Switch Processor (RSP) to the data plane (DP).

  Conditions: Occurs when you apply a QoS shaping configuration at a high scale.

  Workaround: Delete the QoS policies and remove the QoS configuration from the interface.

- CSCud04407

  Symptom: The router displays the following console error message: `Error - packet with unsupported linktype 3`

  Conditions: Occurs when the router is passing traffic over the OC-3 interface module.

  Workaround: There is no workaround.

- CSCud07085

  Symptom: The serial interface on the OC-3 interface module remains in a down state.

  Conditions: Occurs when you migrate from T1 mode to E1 mode using the OC-3 interface module.

  Workaround: Issue an interface module reset (OIR) on the OC-3 interface module.

- CSCud07236

  Symptoms: Upon reload few harmless messages will seen.

  Conditions: Upon reload few harmless messages will seen.

  Workaround: No impact on device.

- CSCud07642

  Symptom: The ASR 903 is unable to pass traffic to the ASR 9000.

  Conditions: Occurs with a clear-channel ATM over MPLS configuration using AAL0 encapsulation.

  Workaround: Enable MPLS control-word on the ASR 9000.

- CSCud09813

  Symptoms: Timestamping not happening in CFM over xconnect down mep/PC

  Conditions: When we configured cfm over xconnect down mep/PC from Asr903-Me3600 timestamping not happening in ASR903.

  Workaround: No workaround.

- CSCud22601

  Symptom: MPLS-TP tunnels remain down after the standby RSP boots.

  Conditions: Occurs when you boot the standby RSP after applying an MPLS-TP configuration and performing an SSO. The issue occurs rarely.

  Workaround: Issue a shutdown/no shutdown on the MPLS-TP tunnel. A nonintrusive workaround is to cause a flap on the protect label switched path (LSP) by reconfiguring the path or physically shutting down and restoring the interface.

- CSCud23647

  Symptom: BDI adjacency fails on the standby RSP.

  Conditions: The issue can occur during an interface module (IM) reset or router reload.

  Workaround: There is no workaround.

- CSCud25764

  Symptoms: 903 part id to be populated in the discovery messages.

  Conditions: Currently it is being displayed as "cisco, asr903" against Vendor in host by executing this CLI "show nv satellite protocol discovery interface Bundle-Ether1000". This must be displayed as cisco, ASR-903. This is mainly used by ASR9K ACT tool for rendering 903 graphic on Act tool.

  Workaround: No workaround.

- CSCud26812

  Symptom: The router CLI does not display some SFP PIDs

  Conditions: Occurs when you install one of the following SFPs in the router:

  - ONS-SI-155-L2
  - ONS-SI-155-L1

  - ONS-SI-155-I1

  Workaround: There is no workaround.

- CSCud27333

  Symptom: The router crashes continuously.

  Conditions: Occurs when you issue an interface module reset (OIR) while the standby RSP is booting.

  Workaround: Do not issue an interface module reset (OIR) while the standby RSP is booting.

- CSCud28982

  Symptom: The router does not process egress CoS marking on an Ethernet service instance.

  Conditions: Occurs when you configure QoS on an Ethernet service instance that is a member of a bridge-domain and uses dot1q encapsulation.

  Workaround: There is no workaround.

- CSCud29479

  Symptom: The router stops applying QoS configurations.

  Conditions: Occurs under the following conditions:

  - An Ethernet interface is configured with a single service instance
  - A QoS policy is attached to the service instance
  - The QoS policy contains a single class containing a **match efp** statement.
  - You reset the interface to the default configuration.

  Workaround: There is no workaround.

- CSCud30806

  Symptoms: Policy with class map match-all with prec 1 and prec 2 is accepted for WRED.

  Conditions: match-all should not accept 2 prec values class-map match-all prec1_2 match precedence 1 match precedence 2

  Workaround: N/A

- CSCud33298

  Symptom: The router crashes.

  Conditions: Occurs when the peer device shuts down.

  Workaround: There is no workaround.

- CSCud33906

  Symptom: Equal Cost Multipath (ECMP) loopback does not function properly.

  Conditions: Occurs when a port-channel link dynamically assigned as an ECMP path.

  Workaround: There is no workaround.

- CSCud34346

  Symptom: Nile manager crashes with the ECMP path when IPv4 scale is exceeded.

  Conditions: This symptom occurs when scale is exceeded with the ECMP path.

  Workaround: Do not allow the user to exceed the supported IPv4 route scale with ECMP.

- CSCud34600

Symptom: Receive a event hog msg when advertise 21k to 25 k routes into MBGP and export from a PE to other PE.

Conditions: When the redistributing routes from range of 21k to 25k customer routes from ospf into MBGP and export from a PE to other PE.

Workaround: No workaround as of now.

- CSCud35689

  Symptoms: Queue-limit configuration at parent level of a policy or in a Vlan class/ port level is accepted. It should be rejected

  Conditions: When configuring queue limit on policy at parent level or in vlan class/ port level.

  Workaround: None

- CSCud36014

  Symptoms: Multiple entries are seen in configs

  Conditions: while configuring licence in bootlevel

  Workaround: -none-

- CSCud37927

  Symptoms: The router does not learn remote Connectivity Fault Management (CFM) Maintenance Endpoint (MEPs).

  Conditions: If we have REP or STP on core with one port as ALT or BLK state.

  Workaround: None.

- CSCud38038

  Symptom: The router records incorrect delay measurements after a reload.

  Conditions: Occurs under the following conditions:

  - You configure Delay Measurement Message (DMM) on a port-channel interface.
  - The port-channel member links are on different interface modules (IMs).
  - You reload the router.

  Workaround: You can use the following workarounds:

  - Remove the **ethernet cfm global** command and re-apply it after the port-channel member links recover.
  - Configure PTP clock synchronization.

- CSCud38115

  Symptom: OSPF connections flap and drop traffic for approximately 20 seconds

  Conditions: Occurs during stateful switchover (SSO).

  Workaround: There is no workaround.

- CSCud38433

  Symptom: The router is unable to establish MPLS neighborship or ping the destination loopback interface.

  Conditions: Occurs when you configure two Equal Cost Multipath (ECMP) paths on a bridge domain interface (BDI) using static routes.

  Workaround: The following workarounds exist:

  - Use Interior Gateway Protocol (IGP) instead of static IP routes.

  - Shut down one of the ECMP paths.

- CSCud38589

  Symptoms: DMM Session Stops Working

  Conditions: DMM configured on BD UP MEP, with redundant links on the Core side, which are in STP Fwding / Blocked state, Issue seen when the STP Fwd Port is shut.

  Workaround: restart the IP SLA session or unshut the port and bring it FWD state

- CSCud38880

  Symptoms: IPv6 traffic drop post SSO with MetroIP services license.

  Conditions: 1. Start bidirectional IPv6 traffic on ASR903 with dual RSP and MetroIP services license, 3.7.1a. Put at least 3-4 streams each running at 10Mbps 2. Force switchover " redundancy force switchover" 3. IPv6 traffic will drop for 4-5 seconds. If you see drops in few milliseconds, then try adding more traffic. Issue is consistently recreatable.

  Workaround: Upgrade the license to MetroAgg, add v6 static neighbor on the port facing test set and force switchover, now there will be no ipv6 traffic loss.

- CSCud41217

  Symptoms: Multicast traffic dropped on 903.

  Conditions: The following l2 configuration are there. There are 3 satellites connected in the setup, only 903 satellite interfaces are showed here.All interfaces are in the same bridge domain. When sent the mcast traffic from 2/4, it is expected that all the satellite interface would received the traffic. But the two 903 satellite interfaces didn't receive the traffic, the other interfaces from other satellite were fine.

  2/4 --------gi0/3/0/11 PE1 gi400/0/2/1 --------3/2 gi400/0/3/1 --------7/4 ..... (901, 9000v satellite interfaces are omitted)

  2/4 sent (225.1.1.1, 192.10.1.1) at the rate of 2000 pps.

  Workaround: No workaround.

- CSCud44768

  Symptom: Multilink bundles and member links flap when passing traffic.

  Conditions: Occurs under the following conditions:

  - You configure more than 210 MLPPP bundles with one member link per bundle or 16 bundles with 16 member links each.
  - The line is operating at a 64 or 128 byte line rate

  Workaround: There is no workaround.

- CSCud48356

  Symptoms: Nile Manager crash seen while configuring service instance

  Conditions: After applying mpls tp config on back to back consoles

  Workaround: There is no workaround.

- CSCud50944

  Symptom: The router drops traffic on an MLPPP bundle.

  Conditions: Occurs following a reload while the router is passing traffic close to the line rate. The issue occurs less frequently with lower traffic rates.

  Workaround: Issue a **shutdown/no shutdown** on multilink interface.

- CSCud55377

  Symptom: The router crashes.

  Conditions: Occurs when you configure offloaded CFM for xconnect sessions at a high scale.

  Workaround: There is no workaround.

- CSCud55695

  Symptom: When you apply an QoS policy with a port level class-default configuration containing a shaper value to a serial interface. the router applies the shaper value to the channel-level PIR for all serial interfaces on the IM.

  Conditions: Occurs when you apply QoS policy with a port level class-default configuration containing a shaper value to a serial interface.

  Workaround: Add a dummy class-default level at the top of the policy and apply the shaper as a child policy of this class.

- CSCud55799

  Symptoms: Multiple priority commands get accepted per policy

  Conditions:

  Have a policy-map with priority configured in one of its classes. add another class with policer first and then with priority. this policy must be rejected.

  Workaround: none

- CSCud56262

  Symptom: The router stops passing traffic on virtual circuits.

  Conditions: Occurs an MPLS-TE/FRR configuration with L2VPN after you issue a stateful switchover (SSO).

  Workaround: Reload the router.

- CSCud56364

  Symptoms: Convergence time for POS links for rsp SSO is about 4-7 seconds.

  Conditions: All 4 POS links must be created on OC3IM. Issue not seen on port 0 of OC3IM.

  Workaround: None. Expected to be fixed.

- CSCud60410

  Symptom: The router drops EFP traffic.

  Conditions: Occurs when you add a new EFP to an existing bridge domain interface (BDI) while running L3 multicast.

  Workaround: Issue a **shutdown/no shutdown** on the Ethernet interface and issue the **clear ip mroute** command.

- CSCud64034

  Symptoms: Interfaces not coming up

  Conditions: 1) Configure t1 interfaces 2) Verify ping & they are coming up 3) Perform SSO 4) Verify Ping again & traffic 5) Unconfigure t1 interfaces .6) Reload the standby 7) Configure t1 interfaces 8) T1 interfaces are not coming up

  Workaround: IM OIR on box

- CSCud64129

Symptoms: Control-plane policing is not working on ASR903; despite CLI showing the options to do it: ASR903(config)#control-plane ASR903(config-cp)#service-policy ? input Assign policy-map to the input of an interface output Assign policy-map to the output of an interface

Conditions: Using traditional CoPP CLI to restrict CPU punted traffic

Workaround: This is a not a supported feature on ASR903.

Further Problem Description: ASR903 has an implicit policer to protect different kinds of traffic destined to RP's CPU. By default, they are policed up to 1Mbps. This is tunable as well. For more details:
http://www.cisco.com/en/US/docs/ios-xml/ios/qos_plcshp/configuration/xe-3s/qos-plcshp-punt-police-monitor.html This software defect is a means to get the unsupported CLI removed from the IOS-XE.

- CSCud64347

  Symptom: The router creates a data loop when using a REP VLAN load balancing configuration.

  Conditions: Occurs with a REP VLAN load balancing configuration when a bridge-domain is bound to a VPLS VC.

  Workaround: None; remove the VLAN load balancing configuration.

- CSCud64436

  Symptom: The router does not send the full line rate on POS interfaces.

  Conditions: Occurs when you send traffic over a POS interface on the OC-3 interface module with a QoS configuration.

  Workaround: There is no workaround.

- CSCud64923

  Symptom: OSPF connections flap.

  Conditions: Occurs when you configure OSPF between an EVC bridge domain interface (BDI) and a trunk EFP bridge domain interface (BDI) using a port-channel trunk.

  Workaround: There is no workaround.

- CSCud65779

  Symptom: The router does not update the Rx value for C2, J1, and S1S0 bytes.

  Conditions: Occurs when you configure overhead bytes on OC-3 connections.

  Workaround: There is no workaround.

- CSCud71286

  Symptoms: Config Sync Failures seen with respect interface.

  Conditions: when AutoNeg is disabled on the interface and configured with speed 100/1000

  Workaround: There is no Functionality impact.No Workaround.

- CSCud71546

  Symptom: The ten Gigabit Ethernet interface drops traffic for 7 seconds following a stateful switchover (SSO).

  Conditions: Occurs when the configuration contains static routes to the destination.

  Workaround: There is no workaround.

- CSCud74804

  Symptoms: Building of rudy_satellite_super image failed. **Conditions:** While building rudy_satellite_super image, not able to find some subsystem and build failed. **Workaround:** No Workaround.

- CSCud76209

  Symptom: The OC-3 interface module goes into an out of service state.

  Conditions: Occurs when you repeatedly perform an interface module reset (OIR) on the OC-3 interface module.

  Workaround: There is no workaround.

- CSCud76679

  Symptom: The router displays a serial interface in the mroute table but does not forward traffic over the assigned interface.

  Conditions: Occurs when you enable multicast traffic on the OC-3 interface module.

  Workaround: There is no workaround.

- CSCud76770

  Symptoms: Convergence time for FRR link/node protection is more than 2 seconds.

  Conditions: NNHOP backup tunnels configured in a ring topology.

  Workaround: No workaround.

- CSCud78168

  Symptoms: Higher convergence (>5 seconds) is observed for 3107 label imposition prefixes.

  Conditions: With 3107 label imposition configured.

  Workaround: No workaround

- CSCud83069

  Symptom: End-to-end traffic does not flow for ATM PVP Mode.

  Conditions: Occurs when you enable ATM PVP Mode.

  Workaround: There is no workaround.

- CSCud83698

  Symptom: Links on the Gigabit Ethernet interface do not become active.

  Conditions: Occurs on the Gigabit Ethernet interface when the local interface is configured for autonegotiation and the remote interface is configured for a speed of 10 Mbps or 100 Mbps.

  Workaround: Toggle the auto-negotiation configuration on the Gigabit Ethernet interface.

- CSCud89451

  Symptom: The router crashes with an error message showing nmpls_label_populate_flow_data.

  Conditions: Occurs when you reset a core interface while the ASR 903 is acting as a PE router and running a configuration with L2VPN and L3VPN.

  Workaround: There is no workaround.

- CSCud90362

  Symptoms: PTP master (OC/BC) on ASR903, the SYNC packets might go out quite irregularly.

  Conditions: This is seen with ASR903 is configured as PTP master.

Workaround: There is no workaround.

Further Description: This depends a lot on the slave and its tolerance levels with respect to SYNC packets reception and processing. With most of the vendors and Test tools it works today except few.

- CSCud90890

  Symptoms: Routing over Trunk EFP over Port-channel doesn't work on member ports associated with Asic #1

  Conditions: If a Trunk EFP on Port-channel has members on asic#1, routing traffic won't egress on those ports

  Workaround: None

- CSCud92915

  Symptoms: Enable BFD support for IPFRR in 3.8.1

  Conditions: BFD with IPFRR

  Workaround: There is no workaround.

- CSCud95359

  Symptom: The show policy map command displays an incorrect number of total dropped packets (total drops).

  Conditions: Occurs when you issue the show policy-map command to display dropped packets on an interface.

  Workaround: There is no workaround.

- CSCud96604

  Symptoms: On system reset/reload, all traffic on certain EFPs will not egress

  Conditions: Complete traffic stoppage on certain EFPs

  Workaround: Delete and reconfigure EFPs

- CSCud96962

  Symptoms: After shut/noshut the mem link interface getting tracebacks - IM Flapping

  Conditions: Configured cfm trunk efp pc -256 session -3.3ms interval after that shut/no shut the traffic sending interface will hit this issue

  Workaround: Configure very less session 50-100 cfm session

- CSCud98985

  Symptoms: on executing show tech-support, invalid command errors were detected for a few commands

  Conditions: on executing show tech-support, invalid command errors were detected for a few commands

  Workaround: There is no workaround.

- CSCud99183

  Symptoms: Ctrl protocols stay down, pings fail on booting with scaled ACE/ACL, (ACL configurations are failing)

  Conditions: it occurs only on reload time

  Workaround: There is no workaround.

- CSCue00049

Symptoms: classification not works properly with non-matching traffic when IP acl is used.

Conditions: This occurs only if we have classes based on acl match. only acl class will classify properly and other classes based on dscp or class-default wont work

Workaround: No known workaround

- CSCue00332

  Symptom: BFD connections flap, bringing down IGP.

  Conditions: Occurs when you enable BFD on an interface that is flapping.

  Workaround: There is no workaround.

- CSCue01419

  Symptoms: EIGRP neighborship is lost on OC3IM / OC12 IM interfaces configured on port 0.

  Conditions: Seen only for interfaces which are configured on port 0 of OC3IM or OC12 IM. Not seen on ports 1,2 or 3.

  Workaround: Perform a shut/no shut on interfaces configured on port 0. Alternatively remove EIGRP and configure again.

- CSCue01919

  Symptoms: Enhancement to L2 protocol tunnelling feature to forward/drop more protocols and reserved mac addresses that are under IEEE wellknown mac address range (0180C2000002-0F) as a part of CE2.0 certification.

  Conditions: This the L2 protocol tunnelling enhancement for CE2.0 certification.

  Workaround: There is no workaround.

- CSCue03418

  Symptoms: The router displays OSPF protocol flaps causing a 20–30 second traffic loss.

  Conditions: The issue occurs very intermittently on a HA system with a 6 second dead-interval value when you issue the **redundancy force-switchover** command;

  Workaround: Increase the dead-interval value.

- CSCue05962

  Symptoms: Cos/Vlan Classification doesn’t work on port channel member links

  Conditions: Apply a Cos based Qos policy on port-channel member links. All the packets will start flowing through class default instead of getting classified on the interface. Look at the attached console logs for configs details.

  Workaround: None

- CSCue07849

  Symptoms: Link failure in L3VPN core takes a long time (in 10s of seconds) to converge even with BGP PIC enabled.

  Conditions: BGP PIC core and PIC edge is configured and there are more than one ECMP core paths to reach backup BGP peer.

  Workaround: Configure only one core path to reach both primary and repair BGP Peers in a BGP PIC Core + Edge configuration. If these are more than one equal cost physical paths to reach BGP peers, then adjust the configuration by increasing the distance for all paths except one.

Post fix caveat: With the fix for this issue, there are following limitations on the scale of prefixes: 1. Global labeled BGP prefix scale: 3200 2. VPN (with or without labeled-BGP nexthop) prefix scale: 4000 3. Combination of Global labeled BGP and VPN prefix: less than 3200 depending on number of VPN and number of labeled BGP prefixes.

- CSCue11444

  Symptoms: Split horizon configurations doesn't work on nile 1 with L2 multicast packets

  Conditions: EFPs with split-horizon configured on nile 1 doesn't honor SH conditions (remain just using deja vu)

  Workaround: shut/no shut. Configure EFP first before moving into split-horizon group.

- CSCue16617

  Symptoms: QoS classification not working in core

  Conditions: When Output policy applied to interface having the BDI as core interface.

  Workaround: Enable "mpls ldp explicit null" on all the Routers.

- CSCue16828

  Symptoms: b2b ping is not working - core side trunk efp PC with BDI

  Conditions: when we have core side trunk efp pc with BDI and changed the port channel in core side b2b ping is not working.

  Workaround: Don‘t change the PC in core side.

- CSCue17123

  Symptoms: ATM/IMA Ping Fails From 2nd Interface Post SSO In xe39 nightly.

  Conditions: This is seen when you have multiple ATM interfaces and issue switchover. Traffic doesn't flow from 2nd interface after switchover.

  Workaround: No workaround

- CSCue18015

  Symptoms: No S,G created. Forwarding based on (*,G).

  Conditions: Happens with IGP change leading to RPF change of the (*,G).

  Workaround: Clearing th (*,G) and recreating should help fixing the problem.

  Further Problem Description: Timing issue and hence chances of landing into the problem depends on the events getting triggered.

- CSCue19898

  Symptoms: (*,G) based forwarding can be seen with IIF change. IGP patch change to the source might lead to this problem.

  Conditions: If the IGP change, the RPF change notification comes. In that case we miss adding the cpuq to the (*G).

  Workaround: Timeout the (*,G) entry and recreating it again either by clear ip mroute or stopping the joins.

- CSCue20022

  Symptoms: -Core (S, G) entries will software switch with-out any hardware forwarding

  Conditions: -IIF is PIM enabled BDI interface. -Scale EVCs configured under single port -Scale BDIs as IIFs -Trigger: Flap main interface having EFPs

Workaround: -Clear Multicast Routes for failing (S, G) -Soft IM OIR for failing IIF interface having scale EVCs

- CSCue24621

  Symptoms: when we do shut on one of the efp, traffic gets stop for other evcs also

  Conditions: Where there are multiple qinq efps with same outer vlan tag on one interface.

  Workaround: None.

- CSCue25267

  Symptoms: Stand-by rsp reloads on IM OIR on OC3IM on active rsp. Nile manager crash seen but core file incompletely generated.

  Conditions: Seen when active rsp is booted up first, then standby rsp is booted. With serial links and APS configs on ASR903, perform IM OIR.

  Workaround: None.

- CSCue25567

  Symptoms: quack authentication failure msg seen on console.

  Conditions: It is seen randomly.

  Workaround: Reload the router.

- CSCue26927

  Symptoms: Alarms are not forwarded in CEM.

  Conditions: Alarms are not forwarded when AC goes down.

  Workaround: No Workaround.

- CSCue27652

  Symptoms: ATM interfaces getting deleted on SSO

  Conditions: ATM Interfaces are deleted on standby after IM OIR

  Workaround: No Workaround.

- CSCue27922

  Symptoms: Syslog showing Object download for the prefix and traffic will not flow for the particular prefix.

  Conditions: Issue is seen during multiple interface flap with 4K prefix and rLFA enabled.

  Workaround: Reload the router

- CSCue30481

  Symptoms: The router does not lock to the syncE clock source after reload. It will be in Ql-failed state.

  Conditions: Reload the router with saved syncE configuration.

  Workaround: Unconfigure and configure the clock source.

- CSCue32753

  Symptoms: While performing ISSU, the OC3IM interfaces are lost on ISSU completion. This is followed with config mismatch errors on router console. When new stand-by reaches standby-hot state, continuous iomd crash messages are seen at regular intervals.

  Conditions: Seen when ISSU is performed from older label images to XE39 image.

Workaround: None. Unconfigure controller level OC3 configs and configure again. To stop continuous iomd crash, reload the standby rsp once. If IM went into inserted or out of service state, then a HARD OIR or process kill might be required.

- CSCue34597

  Symptoms: CHAP authentication process timed out. PPP interface and multilink bundle doesn't come up.

  Conditions: When PPP or MLPPP is configured and PPP authentication is enabled.

  Workaround: remove CHAP authentication from interface

- CSCue34618

  Symptoms: Traffic stops flowing with combination of BRR and policer: in different class-maps under a policy.

  Conditions: When the BW remaining ratio is configured in combination of police with cir (total brr and police cir equal to 1000M):

  Workaround: Configuring total of BRR and police cir <1000M works fine: Ex: class A Police cir 100m and class B BRR 90% fails but BRR 89% works fine

- CSCue35356

  Symptoms: Policy-map attached on the PC interface stops working after service instance is removed and re-configured.

  Conditions: A policy-map is attached to the main interface of the port-channel. The policy stops working when the service instance from the interface is deleted dynamically and then re-configured.

  Workaround: Remove and re-attach the policy-map on the PC interface

- CSCue36239

  Symptoms: Match EFP policy on PC stops working after one of the policy on the member links is removed.

  Conditions: Attach policy to all the memberlinks on the PC. Then remove it from one of the member links from which traffic was flowing. The traffic gets redirected but the QoS is no longer working

  Workaround: Remove policy from all the member links and then reattach

- CSCue43205

  Symptoms: The router drops traffic when you set an interface to the default configuration.

  Conditions: Occurs when you set an interface with QoS configurations to

  the default configuration. The issue occurs most often with the Ten Gigabit

  Ethernet interface using a full global configuration.

  Workaround: There is no workaround.

- CSCue42315

  Symptoms: CPU Hogs messages and IOMD Crash seen

  Conditions: With OC3 IM on doing shut/no shut of Multilink Bundle when traffic sent with packet size greater then 1500 byte

  Workaround: none

- CSCue42341

  Symptoms: Backup path will be used to carry traffic instead of Primary path after reopt

  Conditions: R-LFA + BFD needs to be configured together

Workaround: Flap the backup path interface

- CSCue43250

  Symptoms: IMA config won't be parsed correctly after router reload when the A903-IM40S is inserted in Bay4/Bay5 of the ASR903 router

  Conditions: when the IMA and ATM interfaces are adjacent. happens only for IM inserted on Bay 4 or above.

  Workaround: insert the IM in bay 0 bay 3 if you want the IMA and ATM parsing to work. or reconfigure the ATM and IMA interfaces, it would work.

- CSCue45306

  Symptoms: CEM circuits configured over TDM IM go down after SSO.

  Conditions: on SSO, CEM circuits configured over TDM IM are down.

  Workaround: Router reload.

- CSCue45498

  Symptoms: CPU goes high when sending traffic with varying source mac addresses for multiple streams for BD.

  Conditions: port-channel is configured as efp for the BD and mac-limit is configured to 0 for that BD.

  Workaround: N/A

- CSCue47317

  Symptoms: Builds and ISSU may get impacted due to sync damage in latest throttles with respect to CCO data.

  Conditions: Modification in implementation of TDL structures.

  Workaround: Sync with CCO data will be committed shortly.

- CSCue52774

  Symptoms: observed with A900-IMA4OS IM in ASR903 box. only when the port above 0 is used for clock-source, the clocking is not received by the system correctly.

  Conditions: when the port above 0 is used for the clock source. issue is seen due to wrong conversion.

  Workaround: 1. use port 0 for clock-sync 2. or insert the SFP in the odd port(protect ones) adjacent to actual port and using a optical splitter, the cable can be fed to this odd port which can recover the proper clocking for the given port.

- CSCue52968

  Symptoms: Ping fails and traffic stops through Multilink bundle when CHAP authentication is enabled

  Conditions: This is seen when PFC and ACFC is configured.

  Workaround: None, in case PFC and ACFC is configured.

- CSCue57670

  Symptoms: After SSO without any network-clock config new Active RSP Sync LED reflects Holdover state.

  Conditions:

  Workaround: Reload This is a cosmetic issue.

- CSCue57671

  Symptoms: Router Crashes while running with REP configurations **Conditions:** Crash seen while removing REP configuration from interface. **Workaround:** None

- CSCue59544

  Symptoms: Once path is once available for TE tunnel, it doesn't comes up **Conditions:** If A900-IMA16D is also present on router, it generates storm which prevent RSVP processing and TE tunnel doesn't up once TE path is available again

  Workaround: None

- CSCue77612

  Symptoms: The mac sync can happen on wrong lportid in the standby which can cause traffic forwarding to the wrong port after switchover.

  Conditions: The traffic impact will be seen only after the switchover.

  Workaround: clear mac-add after switchover.

- CSCue86696

  Symptoms: Noticed interface flap on one of the routers, during overnight soak run.

  Conditions: Seen during prolonged soak tests with SFP IM.

  Workaround: None

- CSCue87542

  Symptoms: On BDI delete, if routing traffic continues, it will be punted to the CPU which will flood out the CPU resulting in control plane loss

  Conditions: Ping failure and BFD/OSPF flaps on BDI delete while ipv4/v6 traffic is running.

  Workaround: The workaround is to delete the TEFP and then delete the BDI interfaces.

- CSCue89790

  Symptoms: IPv6 traffic outage after SSO when NSF timer expires.

  Conditions: Occurs when configuring IPv6 static routing or IPv6 OSPF routing.

  Workaround: For IPv6 SSO support, ensure the following:

  - IPv6 neighbor are configured statically.
  - For dynamic route or static route, you must run a hardware BFD between IPV6 neighbors.