Restrictions and Caveats in Cisco IOS XE 3.7S Releases

This chapter provides information about restrictions and caveats in Cisco IOS XE 3.7S releases.

Note Because Cisco IOS XE 37S is based on Cisco IOS XE 3.5 inherited releases, some caveats that apply to Cisco IOS XE 3.5 releases also apply to Cisco IOS XE 37S. Release 3.5 is not described in this document; for a list of the software caveats that apply to Cisco IOS XE 3.5, see the Release Notes for Cisco IOS XE Release 3S.

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 sections describe the Cisco ASR 903 Router limitations in IO S XE 3.7 releases:

Limitations and Restrictions in Cisco IOS XE Release 3.7(4)S

There are no changes in limitations and restrictions in Cisco IOS XE Release 3.7(4)S; the restrictions from IOS XE Release 3.7(2)S still apply.

Limitations and Restrictions in Cisco IOS XE Release 3.7(3)S

There are no changes in limitations and restrictions in Cisco IOS XE Release 3.7(3)S; the restrictions from IOS XE Release 3.7(2)S still apply.

Limitations and Restrictions in Cisco IOS XE Release 3.7(2)S

The following limitations and restrictions apply to Cisco IOS XE Release 3.7(2)S for the Cisco ASR 903 Router:

- LFA FRR Limitations—Release 3.7.2 has the following limitations for Loop Free Alternate Fast-reroute (LFA FRR):
  - To enable LFA FRR, you must include the **mpls ldp explicit-null** command. The implicit-null command is not supported.
  - LFA FRR is not supported with equal cost multipath (ECMP).
  - The ASR 903 supports up to 4000 LFA FRR routes.
  - Remote LFA tunnels are not HA aware; hence they are SSO co-existent but not SSO compliant.
- The restrictions from IOS XE Release 3.7(0)S apply to Release 3.7(2). For more information, see Limitations and Restrictions in Cisco IOS XE Release 3.7(0)S, page 2.

Limitations and Restrictions in Cisco IOS XE Release 3.7(1)aS

There are no changes in limitations and restrictions in Cisco IOS XE Release 3.7(1)aS; the restrictions from IOS XE Release 3.7(0)S still apply.

Limitations and Restrictions in Cisco IOS XE Release 3.7(0)S

The following limitations apply to the Cisco ASR 903 Router in IOS XE Release 3.7(0)S:

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.

Bridge Domain Interface Limitation

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

Clocking and Timing Limitation

- 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.

EFP Limitation

- QinQ is not supported on trunk EFP interfaces.

Equal Cost Multipath Limitation

- The ASR 903 supports a maximum of 4 Equal Cost Multipath (ECMP) links.

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.
- LACP Fast-Switchover Limitation—Cisco IOS has a default carrier-delay value of 2 seconds. When an LACP link fails, the router does not perform a switchover until the carrier-delay timer expires. The **carrier-delay** command helps reduce this value. We recommend that you set a **carrier-delay** value of greater than 0 as this value can result in slower convergence times. We also recommend that you set an identical **carrier-delay** value on all LACP member links.

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 8 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.
- SDH framing mode is supported; SONET is not supported.
- The optical interface module is designed for OC-3 and OC-12 traffic, but OC-12 functionality is not currently supported.
- 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.
- We recommend that you use Release 3.7.2 or later when using the OC-3 IM with high availability (HA) features such as stateful switchover (SSO).

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.

QoS Limitations

- For a description of QoS features and limitations on the Cisco ASR 903 Router in release 3.7S, see http://www.cisco.com/en/US/docs/routers/asr903/software/guide/chassis/Release3.7.0S/ASR903-Chassis-SW-37.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.

Note 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.

Caveats in Cisco IOS XE 3.7S 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 3.7S releases.

In this section, 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 3.7S Releases:

Open Caveats—Cisco IOS XE Release 3.7(4)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.7(4)S.

- CSCtw92458

  Symptom: IFM CC messages are leaked to unmatched encapsulation on that bridge domain (BD).

  Conditions: This issue occurs when EVCs with different encapsulation are present on same BD.

  Workaround: There is no workaround.

- CSCty63969

  Symptom: Ping fails to remote MEP.

  Conditions: This issue occurs when CFM is configured and a ping to remote MEP with packet size greater than 1478 bytes is executed.

  Workaround: There is no workaround.

- 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.

- CSCua99096

  Symptoms: The **show ima interface** command omits some IMA group information such as ImaGroupSymmetry.

  Conditions: This issue occurs when the **show ima interface** command.

  Workaround: There is no workaround.

- CSCub94462

  Symptom: The router displays object download error messages on the console.

  Conditions: This issue occurs under the following conditions

  - Execute the **mac address sticky** command.
  - Configure 25 incremental MAC addresses and execute the **clean mac-address-table bdomain** command
  - Remove a mac security sticky configuration from an EVC interface.

  Workaround: Avoid issuing the **clear mac-address-table** command when the **mac security sticky** command is applied.

- CSCuc08397

  Symptom: When IFM is configured on EVC BD, with encapsulation default in the core, the remote MEPS are not learnt.

  Conditions: This issue is seen when encapsulation default is configured on the core facing side.

  Workaround: There is no workaround.

- CSCud09142

  Symptom: FP active error messages are seen when the tunnel-tp interface is removed in a high-availability setup.

  Conditions: This issue is seen after removing tunnel-tp interface.

  Workaround: There is no workaround.

- CSCud34600

  Symptom: Event hog messages are received when 21k to 25k routes are advertised into MBGP and exported from one PE to another.

  Conditions: This issue occurs when the redistributing routes range from 21k to 25k routes from OSFP are moved into MBGP and are exported from one PE to another.

  Workaround: There is no workaround.

- CSCud90362

  Symptom: the SYNC packets go out quite irregularly when PTP master is configured.

  Conditions: This issue is seen when the router is configured as PTP master.

  Workaround: There is no workaround.

- CSCue24854

  Symptom: Loss of 70 msec are observed when performing an IM OIR in a remote LFA ring.

  Conditions: This issue occurs when soft OIR is performed.

  Workaround: Do a hard OIR to get less than 50 msec loss.

- CSCue73478

  Symptom: The standby RSP Sync LED become holdover after switchover.

  Conditions: This issue occurs in normal conditions,

  Workaround: There is no workaround. This issue is cosmetic.

- CSCue96886

  Symptom: Complete MAC Address space is not available on the RSP.

  Conditions: This issue occurs after removing the service instance with the MAC Addresses learnt on the BD.

  Workaround: Shutdown the service instance corresponding to bridge-domain and clear the MAC-address-table of that bridge-domain. Remove the service instance.

- CSCuf07508

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

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

  Workaround: Perform an IM OIR.

- CSCuf44077

  Symptom: The show interface command output displays incorrect speed values after SSO.

  Conditions: This issue occurs when 100M SFPs are used

  Workaround: Perform hardware module reset.

- CSCuf86247

  Symptom: SNMP MIB variables related to BDI counters do not function properly.

  Conditions: This issue occurs when SNMP MIB variables related to BDI interface counters are used.

  Workaround: There is no workaround.

- CSCuh46103

  Symptom: The BDI statistics not getting incremented.

  Conditions: This issue is observed when the **show interface bdi statistics** command is executed. The ingress and egress statistics displayed do not get incremented even if the traffic is going through the BDI interface.

  Workaround: Use **show platform hardware pp active interface statistics bdi** command to view the statistics.

- CSCuh65489

Symptom: The BGP session goes down when ICMP echo-request of 1500 pps is received.

Conditions: This issue occurs when the router has BGP peers and receives the ICMP-echo request. The BGP hold timer expires nd BGP peer goes down.

Workaround: There is no workaround.

- CSCuh79730

  Symptom: The transmitting frequency is incorrectly displayed in case of DWDM-XFP-C.

  Conditions: This issue occurs when **show hw-module subslot 0 transceiver idprom** command is executed.

  Workaround: There is no workaround.

- CSCui50862

  Symptom: Few CFM primary sessions stays inactive.

  Conditions: This issue occurs when CFM domain with SLA is configured.

  Workaround: There is no workaround.

- CSCui87257

  Symptom: The interface clock is not detected after a switchover

  Conditions: This issue occurs after a switvchover is performed from RSP0 to RSP1.

  Workaround: There is no workaround.

Resolved Caveats—Cisco IOS XE Release 3.7(4)S

This section documents the resolved caveats for the Cisco ASR 903 Router in Cisco IOS XE Release 3.7(4)S

- CSCtz43467

  Symptom: All commands listed under the REP configuration modes cannot be configured. This was seen while configuring REP with BDI and configuring more than one source ports in a span session.

  Conditions: This issue occurs in normal working conditions.

  Workaround: There is no workaround.

- CSCua95675

  Symptom: An Ethernet virtual circuit (EVC) interface stops forwarding traffic.

  Conditions: This issue occurs when multiple EVCs are configured on a single interface. The EVCs have the same outer tag VLAN.When one of the EVCs is removed from the configuration, the other EVCs with the same outer tag VLAN stop passing traffic.

  Workaround: Issue a **shutdown** command followed by a **no shutdown** command on the Ethernet interface.

- CSCuc60148

  Symptom: System does not shut down when the temperature sensor reaches shutdown threshold region.

  Conditions: This issue occurs when the temperature sensors reaches the shutdown threshold region.

Workaround: Configure the **facility-alarm critical exceed-action shutdown** command has to enable this system shutdown behavior.

- CSCud61551

  Symptom: Serial Number of the RSP in slot 1 is not displayed some times in the **show inventory** command output.

  Conditions: This issue occurs under normal working conditions.

  Workaround: Reload the router again.

- CSCue24621

  Symptom: When one EFP is shut, traffic get stops for other EVCs.

  Conditions: This issue occurs where there are multiple qinq EFPs with same outer vlan tag on one interface.

  Workaround: There is no workaround.

- CSCue25349

  Symptom: Tracebacks seen on the router with inject bypass set to OFF.

  Conditions: This issue occurs after shutting down the core facing interface or any OSPF enabled interface.

  Workaround: There is no workaround.These traces does not have any functional impact.

- 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: This issue 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.

- CSCue60699

  Symptom: The router auto-negotiates full duplex with 1000M half/full duplex configuration.

  Conditions: This issue occurs when the router has Copper SFP with auto-negotiate enabled. and SFP is configured with 1000M half-duplex mode.

  Workaround: There is no workaround.

- CSCue61803

  Symptom: The interface modules do not get powered off, when router is reloaded.

  Conditions: This issue is occasionally seen on reload.

  Workaround: There is no workaround.

- CSCue61850

  Symptom: Memory allocation observed fro CFM EVC BD offload cases- scale configurations

  Conditions: This issue occurs with CFM EVC BD, when 256 session of3.3ms interval and 256 SLM session are configured and a **shutdown** command followed by a **no shutdown** command is issued on the traffic sending interface.

  Workaround: Configure CFM session between 50-100.

- CSCue67835

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

  Conditions: This issue occurs on router Stateful switchover (SSO).

  Workaround: Use the default OSPF hello timers.

- CSCue75372

  Symptom: Time-hog traceback seen on router reload or IM reload.

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

  Workaround: There is no workaround.

- CSCue77596

  Symptom: CoS value gets wrongly marked for a qinq packet.

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

  Workaround: There is no workaround.

- CSCue80866

  Symptom: Label exhaustion message is seen with scale match vlan and match PHB policy; Classification fails to work.

  Conditions: This issue occurs with TEFP with range of BDs that have match VLANs of the corresponding BD and a child policy to match prec/cos.

  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.

- 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.

- CSCue94811

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

  Conditions: This issue occurs under normal conditions.

  Workaround: There is no workaround.

- CSCuf02518

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

  Condition: This issue occurs when both If IPv4 and IPv6 ACLs share the same label, the IPv4 traffic on the interface on which IPv6 ACL is applied is impacted.

  Workaround: There is no workaround.

- CSCuf43992

  Symptom: The router crashed with local span configuration.

  Conditions: This issue occurs with local span configuration.

  Workaround: Configure erspan configuration with source and destination erspan sessions in the router.

- CSCuf51509

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

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

  Workaround: There is no workaround.

- CSCuf53527

  Symptom: Cos inner value gets copied into the cos value.

  Conditions: This issue occurs when QinQ without rewrite service instance is configured.

  Workaround: Apply the qos policy-map to the cos inner value.

- CSCuf56723

  Symptom: The interface LED glows green when shut.

  Conditions: This issue occurs after an SSO is performed.

  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

- 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.

- 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.

- 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.

- CSCug05647

  Symptom: Interface counters do not get 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

- 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.

- 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.

- CSCug26432

  Symptom: Egress layer3 multicast drops to few BDI outgoing interfaces after a router reload.

  Conditions: This issue occurs after router reload.

  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.

- CSCug39899

  Symptom: Traffic stops flowing through QinQ BDI interface after ARP times out and ARP is removed by shutting the BDI.

  Conditions: This issue occurs when static routing is configured, and no routing protocol is configured on the interface.

  Workaround: Manually resolve the ARP by pinging the BDI interface.

- 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.

- CSCug52920

  Symptom: EFP stats does not work after applying the QoS policy on the EFP.

  Conditions: This issue occurs when service policy is applied on the EFP.

  Workaround: There is no workaround.

- CSCug55586

  Symptom: If you dynamically remove the egress markings, ingress marking does not work.

  Conditions: This issue is observed if a marking is present at the logical level in the egress direction, DM does not work.

  Workaround: Use the egress set at leaf or PHB level.

- CSCug67955

  Symptom: The standby FP is stuck in init state.

  Conditions: This issue occurs after ISSU is performed.

  Workaround: There is no workaround.

- 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.

- CSCug83846

  Symptom: The MTU value does not take effect on an interface.

  Conditions: This issue is observed when you try to configure more than eight unique MTU values on the router.

  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.

- 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

- 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.

- 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

- 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

- CSCuh92939

  Symptom: Replacing the copper SFP with SFP causes traffic drop after SSO is performed

  Conditions: This issue occurs after replacing the copper SFP with the fiber SFP.

  Workaround: Perform an IM OIR.

- 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.

- CSCui08978

  Symptom: Crash observed on the router.

  Conditions: This issue occurs when shutdown followed by a no shutdown is performed on the physical interfaces.

  Workaround: There is no workaround.

Open Caveats—Cisco IOS XE Release 3.7(3)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.7(3)S.

- CSCuf89844

  Symptom: The router crashes when a bridge domain interface (BDI) interface running Bidirectional Forwarding Detection (BFD) is deleted.

  Conditions: This issue occurs when a static MAC address is assigned on the neighbor interface or on one of the BDI interface on the router and BDI interface running BFD is deleted.

  Workaround: There is no workaround.

- CSCug18630

  Symptom: CMAND process crash and tracebacks observed on the router.

  Conditions: This issue occurs after a hard OIR is performed and the standby RSP comes up.

  Workaround: There is no workaround.

- CSCuc42085

  Symptom: The 1PPS output from the router 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 or boundary) and there are intermediate hops between the router and the PTP master clock. This issue occurs only when the intermediate hops are through an Cisco ASR 9000 router.

  Workaround: There is no workaround.

- CSCud34600

  Symptom: An event hog message is received when 21000 to 25000 routes are advertised into the Multiprotocol BGP (MBGP) and exported from one PE to other PE.

  Conditions: This issue occurs when the redistributing routes range from 21000 to 25000 routes from OSPF into MBGP and exported from a PE to other PE.

  Workaround: There is no workaround.

- CSCue77397

  Symptom: The Cisco ASR 903 manager crashes while flapping local MPLS enabled interfaces at nmpls_label_populate_flow_data.

  Conditions: This issue occurs when 6000 Layer3 VPN routes and 600 Layer2 VPN sessions exist.

  Workaround: There is no workaround.

- CSCuf85588

  Symptom: The pending objects from virtual forwarding interface (VFI) interfaces exists after shutdown of path when the core link comes up.

  Conditions: This issue exists when Ethernet over MPLS (EoMPLS) or VPLS with MPLS Tunnel TE in the core exists.

  Workaround: There is no workaround.

- CSCuf74113

  Symptom: Interface mode cannot be entered for serial interfaces.Error messages are displayed.

  Conditions: This issue occurs after creation of serial interfaces.

Workaround: There is no workaround.

- CSCud38115

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

  Conditions: This issue occurs during stateful switchover (SSO).

  Workaround: There is no workaround.

- CSCue07502

  Symptom: A crash is observed after completing ISSU. The F0/F1 are getting stuck in init state.

  Conditions: This issue occurs after completing ISSU.

  Workaround: Reload the router.

- CSCue24854

  Symptom: Performing an IM OIR in a remote LFA ring reports a loss of 70 ms.

  Conditions: This issue occurs during a soft OIR of the IM.

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

- CSCue87571

  Symptom: GLC-ZX-SM-RGD and GLC-LX-SM-RGD rapid SFP OIR causes ipprom to fail.

  Conditions: This issue occurs after rapid SFP OIR.

  Workaround: Perform each OIR with a delay of 30-40 seconds between the OIR. Reload the IM to recover the port.

- CSCuf07508

  Symptom: The Gigabit Ethernet port on interface module does not come up after a reload.

  Conditions: This issue occurs when the Cisco ASR 903 router is reloaded multiple times.

  Workaround: Perform an OIR of the interface module.

- CSCuf79397

  Symptom: The F1 interface is stuck in init state after OIR of the standby RSP or standby reload.

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

  Workaround: There is no workaround.

- CSCub94462

  Symptom: The router displays object download error messages on the console similar to the following example:

  ```
  %FMFP-3-OBJ_DWNLD_TO_CPP_FAILED"
  ```

  Conditions: Occurs when you take the following actions:

  - Apply the **mac address sticky** command
  - Configure 25 incremental MAC addresses
  - Apply the **clear mac-address-table bdomain** command
  - Remove a **mac security sticky** configuration from an EVC interface

  Workaround: Do not issue **clear mac-address-table** command when the **mac security sticky** is configured.

- 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.

- CSCuf86247

  Symptom: SNMP MIB variables related to BDI counters do not function properly.

  Conditions: Occurs when you use SNMP MIB variables related to BDI interface counters.

  Workaround: There is no workaround.

- CSCug05491

  Symptom: The router drops traffic on VPLS circuits.

  Conditions: 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.

- CSCuf86184

  Symptom: The **show interface BDI** command does not display the incrementing of counters when traffic is flowing.

  Conditions: This issue occurs after executing the **show interface BDI** command.

  Workaround: There is no workaround.

- CSCug30714

  Symptom: OSPF flaps occur on interface module stop.

  Conditions: This issue occurs when the interface module stops.

  Workaround: There is no workaround.

- CSCud96866

  Symptom: The router displays the following symptoms:

  - Object download failures
  - OSPF traffic flaps
  - High CPU utilization
  - Bundling and unbundling of port-channel member links
  - Slow console updates
  - Remote MEP learning failures

  Conditions: Occurs when you configure CFM offloaded MEPs for xconnect on a port-channel interface at a high scale and issue a **shutdown/no shutdow**n on the port-channel interface.

  Workaround: There is no workaround.

Resolved Caveats—Cisco IOS XE Release 3.7(3)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.7(3)S.

- CSCty30951

  Symptom: The router displays the following console error message: %QOSMGR-3-OUT_OF_TCAM_RESOURCES: SIP0: nile_mgr: Out of tcam resources to execute command

  Conditions: Occurs when you remove a QoS configuration by setting the interface to the default configuration.

  Workaround: There is no workaround.

- CSCty34054

  Symptom: The router displays CPU utilization traceback messages and drops all multicast traffic for 2050 seconds.

  Conditions: Occurs under the following conditions:

  - Multicast is enabled with more than 500 multicast groups.
  - The router is using RSP1B in SSM mode.
  - BDI is configured on the access side of the router.

- There are 24 EFPs on each bridge domain.
- You enter a **shutdown** command on the access interface.

Workaround: There is no workaround.

- CSCty74115

  Symptoms: The router displays traceback and CPU error messages.

  Conditions: Occurs when you configure a high number of MAC address table entries while REP is enabled; the router displays errors during a REP topology change, REP preemption, or when you perform a **shutdown/no shutdown** on an interface.

  Workaround: Reduce the number of MAC address entries.

- CSCua15499

  Symptoms: The **show interface** command output displays 1000 Mbps information for both 100Mbps and 10 gigabyte transceivers.

  Conditions: Occurs when you use 100 Mbps and 10 Gigabit Ethernet transceivers

  Workaround: There is no workaround.

- CSCua25779

  Symptom: An Ethernet virtual circuit (EVC) interface does not forward IPv4 traffic.

  Conditions: Occurs when you apply the **encapsulation dot1q** command to an EVC, followed by the **encapsulation untagged** command.

  Workaround: Issue a **shutdown/no shutdown** on the EVC interface.

- CSCua62305

  Symptom: QoS does not function on the router.

  Conditions: Occurs under the following conditions:

  - You apply a service-policy and an ACL to the same interface
  - You modify the ACL by adding an ACE containing a **permit ospf** statement.

  Workaround: There is no workaround.

- CSCub64331

  Symptom: The 10Mhz reference clock to the SDH Equipment Timing Source (SETS) goes to out-of-resource (OOR).

  Conditions: Occurs when you connect both 10Mhz and 1pps inputs.

  Workaround: Connect only the 10Mhz interface.

- CSCub71932

  Symptom: The OC-3 interface module (IM) crashes.

  Conditions: Occurs when you boot the router with an OC-3 IM and there are is no configuration applied to the IM. The issue occurs intermittently.

  Workaround: There is no workaround; wait for the interface module to reset.

- CSCub89531

  Symptom: Multicast statistics in the MFIB output can show NA/NA. This causes multicast traffic to drop every 3 minutes once the 3 minute timer expires.

  Conditions: Occurs after an stateful switchover (SSO).

  Workaround: Issue another SSO or reload the router.

- CSCuc43719

  Symptoms: The router crashes.

  Conditions: Occurs when you apply a Network Based Application Recognition (NBAR) configuration to the router. There is no specific trigger.

  Workaround: Remove the NBAR configuration, it is not supported.

- CSCuc55382

  Symptoms: The **show inventory** command displays incorrect serial number for SFPs and XFPs.

  Conditions: Occurs after you issue repeated stateful switchovers (SSOs).

  Workaround: There is no workaround.

- CSCuc59386

  Symptoms: Continuous IOMD crashes occur on OC-3 IM. Interfaces on OC-3 IM are not configurable and the router displays the the following error message:

  ```
  "stand-by does not support this command"
  ```

  Conditions: Occurs with OC-3 IM in a redundant configuration when an IOMD crash occurs on the active RSP and the standby IOMD session handle is not cleared.

  Workaround: Reload the standby RSP.

- CSCuc62784

  Symptoms: The router displays traceback error messages at niles_if_count_initialize

  Conditions: Occurs following a reload or stateful switchover (SSO).

  Workaround: There is no workaround. However, the issue does not have any functionality impact.

- CSCuc64654

  Symptom: The router is unable to ping the remote customer edge (CE) router.

  Conditions: Occurs when the router is acting as a provider edge (PE) device and is connected to the remote PE using dual loopback interfaces for peering with iBGP sessions.

  Workaround: Use a single loopback interface. Use the same loopback interface for IPv4 and VPNv4 address families.

- 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.

- 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.

- CSCuc85721

  Symptom: The router crashes.

  Conditions: Occurs under the following conditions:

  – MR-APS is configured on serial interfaces on the OC-3 interface module

  - The router is configured with a high number of serial interfaces
  - You reset an interface module or reload the router.

  Workaround: There is no workaround.

- CSCuc91007

  Symptom: A slave clock displays a high 1PPS offset value from the master clock.

  Conditions: Occurs after an interface module reset or stateful switchover (SSO) on the master device.

  Workaround: There is no workaround.

- CSCuc95590

  Symptom: The router does not automatically upgrade the FPGA software.

  Conditions: Occurs when you load a new image while running an older FPGA version.

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

- CSCuc98185

  Symptom: One out of 48 EFPs in a BDI does not receive traffic when running L3 multicast. The issue does not happen consistently.

  Conditions: Occurs under the following conditions:

  - You configure Protocol-Independent Multicast-Sparse Mode (PIM-SM) with a static rendezvous point (RP).
  - You configure a bridge domain interface (BDI) on the PE2 access side
  - You use the BDI to send IGMP v2 static join messages to a single multicast group
  - You disable IGMP snooping globally.
  - You configure 24 EFPs and map them to a single bridge-domain.
  - You initiate multicast traffic.
  - With multicast traffic enabled, you configure 24 EFPs and map them to the existing bridge-domain.

  One of the 48 EFPs does not receive traffic.

  Workaround: Reload the router.

- CSCud01644

  Symptom: The active forwarding processor (FP) is on the standby route switch processor (RSP).

  Conditions: Occurs when you boot the two RSPs in quick succession and the FP on the standby RSP becomes active before the FP on the active RSP.

  Workaround: Reload the router.

- CSCud07236

  Symptoms: The router displays console error messages when reloading.

  Conditions: Occurs when you reload the router.

  Workaround: There is no workaround; however, the messages have no impact on device.

- CSCud07642

  Symptom: The ASR 903 router 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.

- CSCud09632

  Symptom: The router does not correctly update the J0 byte on the OC-3 or OC-12 interface module.

  Conditions: Occurs in a back-to-back configuration with two ASR 903s passing SONET traffic.

  Workaround: There is no workaround.

- CSCud15785

  Symptom: The router experiences flapping on REP connections.

  Conditions: Occurs under the following conditions:

  - MAC limiting is enabled and a MAC address is at the maximum value
  - REP is configured with a 200 millisecond LSL ageout timer

  Workaround: Increase the REP timer to above 500 milliseconds or disable the MAC limiting feature.

- CSCud15841

  Symptom: The **clear ip mroute** * command causes resource leakage.

  Conditions: Occurs when you issue the **clear ip mroute** * command while IP multicast is enabled.

  Workaround: Reload the router.

- CSCud17457

  Symptom: The router drops IP multicast traffic.

  Conditions: Occurs when you perform the following actions:

  - Configure EFPs as members of a port channel containing a single interface.
  - Remove the configuration for the EFPs
  - Remove the interface from the port channel
  - Add the EFPs back onto the interface

  Workaround: Reload the router or issue a stateful switchover (SSO).

- CSCud23698

  Symptom: The router stops applying classification and marking for a class.

  Conditions: Occurs when you remove a priority level while using dual priority for the class-map.

  Workaround: Remove and reattach the policy-map on the interface.

- 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.

- CSCud30806

  Symptoms: The router accepts a QoS WRED configuration containing **match-all** configurations for two different **prec** values, which is not supported.

  Conditions: Occurs when you configure a policy with a class-map containing **match-all** configurations for two different **prec** values.

  Workaround: There is no workaround.

- CSCud33298

  Symptom: The router crashes.

  Conditions: Occurs when the peer device shuts down.

  Workaround: There is no workaround.

- CSCud34346

  Symptom: The router crashes.

  Conditions: The issue can occur when:

  – The router is configured with multiple ECMP paths

  – MPLS IP is not enabled on one of the ECMP paths

  Workaround: There is no workaround.

- CSCud35689

  Symptoms: The router accepts a queue-limit configuration at the parent level of a policy or at the Vlan class/ port level. This configuration is not supported.

  Conditions: Occurs when you add a queue-limit configuration on a policy at the parent level or at the vlan class/ port level.

  Workaround: There is no workaround.

- CSCud37927

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

  Conditions: Occurs when the router is passing REP or STP traffic and one port is in an ALT or BLK state.

  Workaround: There is no workaround.

- CSCud38164

  Symptom: The router displays an object download failure message on the console.

  Conditions: Occurs when the number of ip routes reaches its maximum configurable limit.

  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.

- CSCud40930

  Symptom: Some interfaces within a bridge-domain are unable to send outbound L3 multicast traffic.

  Conditions: Occurs when the bridge-domain contains EFP interfaces, some of which are on a port-channel. The issue can also occur after a router reload.

  Workaround: Issue a **shutdown/no shutdown** on the BDI interface.

- 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.

- CSCud44942

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

  Conditions: Occurs when you configure a MEP on an interface.

  Workaround: There is no workaround.

- CSCud49980

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

  Conditions: Occurs when you configure CFM MEPs on carrier edge (CE) routers and VPLS on provider edge (PE) routers.

  Workaround: Create an EVC bridge-domain running CFM on the PE router and enable a virtual forwarding interface (VFI) on the bridge-domain.

- CSCud50851

  Symptom: The router experiences flapping on REP connections.

  Conditions: Occurs when you enable MAC limiting at a high scale and the set of MAC addresses changes continuously.

  Workaround: Disable MAC limiting.

- 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: The router applies the shaper value to the channel-level PIR for all serial interfaces on the interface module.

  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.

- CSCud56071

  Symptom: The router does not pass loop-free alternate (LFA) IP fast reroute (IPFRR) traffic.

  Conditions: Occurs when the router is configured with 10 or more IPv4 prefixes.

  Workaround: Configure 9 or fewer prefixes.

- CSCud61931

  Symptom: As OC-3 interface module controller does not become active using loopback local.

  Conditions: Occurs with the A900-IMA4OS interface module when there is no SFP inserted in the port.

  Workaround: Insert an SFP in the appropriate port.

- CSCud64034

  Symptoms: T1 interfaces do not become active.

  Conditions: Occurs when you perform the following actions:

  1. Configure T1 interfaces on the router.
  2. Use ping to verify that the interfaces are active
  3. Perform a stateful switchover (SSO)
  4. Use ping to verify that the interfaces are active
  5. Remove the T1 interface configuration
  6. Reload the standby RSP
  7. Reconfigure the T1 interfaces

  The T1 interfaces do not become active.

  Workaround: Perform an OIR on the interface module.

- CSCud64129

  Symptoms: The router displays CLI options to configure control-plane policing, which is not supported.

```
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: Occurs when you attempt to configure control plane policing to restrict traffic punted by the CPU.

  Workaround: There is no workaround; the feature is not supported.

Further Problem Description: The ASR 903 has an implicit policer to restrict traffic destined for the CPU. The router polices this traffic up to 1Mbps by default, and this value is adjustable. For more detail, see http://www.cisco.com/en/US/docs/ios-xml/ios/qos_plcshp/configuration/xe-3s/qos-plcshp-punt-police-monitor.html

- 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.

- 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.

- 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.

- CSCud76770

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

  Conditions: Occurs when you configure Next-Nexthop (NNHOP) backup tunnels in a ring topology.

  Workaround: There is no workaround.

- CSCud78168

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

  Conditions: Occurs when you configure 3107 label imposition prefixes.

  Workaround: There is no workaround.

- CSCud83056

  Symptoms: PTP sessions remain in HOLDOVER mode.

  Conditions: Occurs when you remove and restore the PTP configuration on the PTP Master device.

  Workaround: Do not include the following commands in a PTP configuration unless ToD and 1PPS cables are directly connected:

  - **tod 0/0 ntp**
  - **input 1pps 0/0**

- CSCud83069

  Symptom: The router does not pass traffic in 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: This issue occurs when the core interface is reset while the Cisco ASR 903 acts as a PE router running a configuration with Layer2 VPN and Layer3 VPN.

  Workaround: There is no workaround.

- CSCud90457

  Symptoms: The serial interface of Circuit Emulation interfaces connected to the CEM interfaces on PE remain down on router reload with scaled configuration.

  Conditions: This issue is observed when you have Circuit Emulation Services over Packet (CESoP) and Structure-agnostic TDM over Packet (SAToP) scaled circuits and perform a router reload.

  Workaround: Perform IM OIR to resolve the issue.

- CSCud90735

  Symptom: The controller comes up without having a license.

  Conditions: This issue occurs 16 port t1/e1 license are installed on PE1_W2

  Workaround: There is no workaround.

- CSCud90890

  Symptom: Routing over Trunk EFP over port-channel does not work on member ports associated with ASIC #1.

  Conditions: This issue occurs if a Trunk EFP on port-channel has members on ASIC #1.

  Workaround: There is no workaround.

- CSCud95359

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

  Conditions: This issue occurs when the show policy-map command displays dropped packets on an interface.

  Workaround: There is no workaround.

- CSCud96604

  Symptoms: On system reset or reload, all traffic on certain Ethernet Flow Point (EFP)s do not egress.

  Conditions: This issue occurs when traffic completely stops on certain EFPs.

  Workaround: Delete and reconfigure EFPs.

- CSCud96962, CSCud97289

  Symptom: After performing a **shutdown** followed by a **noshutdown** the member-link Connectivity Fault Management (CFM) crash is observed

Conditions: This issue occurs when CFM Trunk Ethernet Flow Point (EFP) is configured with 256 sessions.

Workaround: Configure around 50-100 CFM sessions.

- CSCud97289

  Symptom: Precision Time Protocol (PTP) slave does not start the session with master.

  Conditions: This issue occurs when the PTP session is not started when the loopback IP address of slave and Master are in same subnet.

  Workaround: Configure Loopback IP addresses of slave and master in different subnets.

- CSCud99183

  Symptom: The control plane protocols such as ISIS, LDP do not come up and pings failure occurs on booting with scaled ACE or ACL. The ACL configurations fail.

  Conditions: This issue occurs on reload on the Cisco ASR 903 router.

  Workaround: There is no workaround.

- CSCud99692

  Symptom: The convergence time takes more than 3 seconds.

  Conditions: This issue occurs in Border Gateway Protocol (BGP) PIC core when path is moved from one active path to 2 Equal Cost Multipath (ECMP) Paths.

  Workaround: There is no workaround.

- CSCue00049

  Symptom: Classification does not work properly with non-matching traffic when IP ACL is used.

  Conditions: This issue occurs only for class-based ACL match. The ACL class are classified properly and other classes based on DSCP or class-default do not work

  Workaround: There is no workaround.

- CSCue00332

  Symptom: The Bidirectional Forwarding Detection (BFD) connections flap, bringing down IGP.

  Conditions: This issue occurs when you enable BFD on an interface that is flapping.

  Workaround: There is no workaround.

- CSCue03418

  Symptom: 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.

- CSCue11444

  Symptom: Split horizon configurations does not clear with Layer2 multicast packets.

  Conditions: This issue occurs when Ethernet Flow Point (EFP)s with split-horizon are configured.

  Workaround: Perform a shutdown followed by no shutdown. Configure EFP first before moving into split-horizon group.

- CSCue16617

  Symptom: The QoS classification does not work in core interfaces.

  Conditions: This issue occurs when the output policy applied to interface has bridge domain interface (BDI) as the core interface.

  Workaround: Enable **mpls ldp explicit null** command.

- CSCue18015

  Symptom: S,G does not get created, the forwarding is based on (*,G).

  Conditions: This issue occurs with Interior Gateway Protocol (IGP) change leading to Reverse Path Forwarding (RPF) change of the (*,G).

  Workaround: Clear the (*,G) and recreate it.

- CSCue19898

  Symptom: (*,G) based forwarding is observed with IIF registry change. The Interior Gateway Protocol (IGP) patch change leads to this issue.

  Conditions: This issue occurs when IGP is changed causing a Reverse Path Forwarding (RFP) change notification.

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

- CSCue20022

  Symptom: Software forwarding of core encapsulation entries causes interface to flap.

  Conditions: This issue occurs when interface has Protocol Independent Multicast (PIM) enabled on the BDI interface.

  Workaround: Perform a soft interface module OIR. Clear the multicast routes for that VRF.

- CSCue20360

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

  Conditions: This issue occurs when Resilient Ethernet Protocol (REP) or Spanning Tree Protocol (STP) exists on core with one port as ALT or BLK state.

  Workaround: There is no workaround.

- CSCue20607

  Symptom: The port-channel load balances the traffic on member-links in hot-standby state or down state resulting in loss of traffic.

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

  Workaround: There is no workaround.

- CSCue25567

  Symptom: Quack authentication failure messages are displayed on router console.

  Conditions: This issue occurs randomly.

  Workaround: Reload the router.

- CSCue26927

  Symptom: Alarms are not forwarded in Circuit Emulation Services over Packet (CESoP).

  Conditions: This issue occurs when alarms are not forwarded when AC goes down.

  Workaround: There is no workaround.

- CSCue30481

  Symptom: The Cisco ASR 903 router does not lock to the synchronous Ethernet clock source after reload. It remains in Ql-failed state.

  Conditions: This issue occurs after a reload of router with saved synchronous Ethernet clock configurations is performed.

  Workaround: Unconfigure and reconfigure the clock source.

- CSCue32753

  Symptom: The OC-3 interface modules are lost after a In Service Software Upgrade (ISSU) is performed on the Cisco ASR 903 router and configuration mismatch errors are displayed on router console. The standby RSP reaches standby-hot state causing continuous IOMD crash messages at regular intervals.

  Conditions: This issue occurs when ISSU is performed.

  Workaround: There is no workaround.

  Try unconfiguring the OC-3 interface module configuration and reconfigure again. Reload the standby RSP to stop IOMD crashes. Perform a hard OIR or process kill if the interface module enters out of service state

- CSCue34618

  Symptom: Traffic stops flowing with a combination of Bandwidth Remaining Ratio (BRR) and policer in different class-maps under a policy.

  Conditions: This issue occurs when the bandwidth remaining ratio is configured as a combination of police with cir (total brr and police cir equal to 1000M).

  Workaround: Configure total BRR and police cir lesser than 1000M. For example, class A Police cir 100m and class B BRR 90% fails but BRR 89% works.

- CSCue42315

  Symptom: CPU hog messages and IOMD crash observed on the Cisco ASR 903 router.

  Conditions: This issue occurs with OC-3 interface module after executing the **shutdown** command followed by a **no shutdown** command of the multilink bundle when traffic is sent with a packet size greater then 1500 byte.

  Workaround: There is no workaround.

- CSCue45498

  Symptom: CPU utilization is high when sending traffic with varying source MAC addresses for multiple streams for a bridge domain (BD).

  Conditions: This issue occurs when port-channel is configured as Ethernet Flow Point (EFP) for the BD and **mac-limit** is configured to 0 for that BD.

  Workaround: There is no workaround.

- 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.

- CSCue52298

  Symptom: TI/EI interfaces on interface module are lost as IOMD crashes after a switchover.

  Conditions: This issue occurs after IOMD crashes when a switchover was performed.

  Workaround: There is no workaround.

- CSCue52774

  Symptom: Sonet controller as input clock source does not get selected on A900-IMA4OS interface module on a Cisco ASR 903 router.

  Condition: This issue occurs when the port above 0 is used for the clock source.

  Workaround: Use port 0 for clock source or insert the SFP in the odd port (protect port) adjacent to the actual port using an optical splitter. The cable is fed to the odd port to recover the proper clocking for the port.

- CSCue52968

  Symptom: Ping failure occurs and traffic stops through Multilink bundle when Challenge Handshake Authentication Protocol (CHAP) authentication is enabled.

  Conditions: This issue is seen when Policy Feature Card (PFC) and Control Field Compression (ACFC) is configured on the Cisco ASR 903 router.

  Workaround: There is no workaround.

- CSCue57670

  Symptom: The active RSP synchronization LED displays the state incorrectly.

  Condition: This issue occurs after a Stateful Switchover (SSO) is performed without any network clock configuration.

  Workaround: There is no workaround. This issue is a cosmetic issue.

- CSCue59544

  Symptom: The A900-IMA16D generates a storm on closing the backup tunnel.

  Condition: This issue occur after unshutting the tunnel.

  Workaround: There is no workaround.

- 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.

- CSCue72438

  Symptom: Link goes down with Rev-D I Gigabit interface module.

  Conditions: This issue occurs on the 1 Gigabit Ethernet interface module port.

  Workaround: There is no workaround.

- CSCue77612

  Symptom: MAC address synchronization on 1 Gigabit Ethernet port on standby RSP causes traffic to be forwarded to incorrect port after a switchover.

  Conditions: This issue occurs after a switchover.

  Workaround: Clear MAC address after a switchover is performed.

- CSCue86696

  Symptom: Interface flaps after longevity run is performed.

  Conditions: This issue occurs after prolonged tests are performed with SPF interface modules.

  Workaround: There is no workaround.

- CSCue87542

  Symptom: Deleting bridge domain interfaces (BDIs) with routing traffic causes a flood to CPU resulting in control plane traffic loss.

  Conditions: This issue occurs after a ping failure and the Bidirectional Forwarding Detection (BFD) protocol or OSFP protocol flaps on deleting the BDI while IPv4 traffic is flowing.

  Workaround: Delete the Trunk EFP interface and then the BDI.

- CSCue89503

  Symptom: The power supply status displays critical after removing and inserting the power supply on the Cisco ASR903 router.

  Conditions: This issue occurs after multiple OIR of the power supply is performed.

  Workaround: There is no workaround. This issue is cosmetic.

- CSCuf05039

  Symptom: I2C-WRITE and MDIO_READ error messages are displayed on the Cisco ASR903 router.

  Conditions: This issue occurs after an interface module hard or soft OIR is performed.

  Workaround: There is no workaround.

- CSCuf61365

  Symptom: Virtual circuit counters do not increment after interface module Online Insertion and Removal (OIR) followed by a SSO is performed.

  Conditions: This issue occurs after an OIR followed by a SSO is performed.

  Workaround: Perform a SSO without a interface module OIR.

- CSCuf65040

  Symptom: 1 Gigabit Ethernet or 10 Gigabit Ethernet interface module enters out of service state.

  Conditions: This issue occurs when a hard Online Insertion and Removal (OIR) is performed on the interface module.

  Workaround: Perform another hard OIR or a Stateful Switchover (SSO) followed by a soft OIR.

Open Caveats—Cisco IOS XE Release 3.7(2)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.7(2)S.

- 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.

- CSCty30951

  Symptom: The router displays the following console error message: %QOSMGR-3-OUT_OF_TCAM_RESOURCES: SIP0: nile_mgr: Out of tcam resources to execute command

  Conditions: Occurs when you remove a QoS configuration by setting the interface to the default configuration.

  Workaround: There is no workaround.

- CSCty34054

  Symptom: The router displays CPU utilization traceback messages and drops all multicast traffic for 2050 seconds.

  Conditions: Occurs under the following conditions:

  - Multicast is enabled with more than 500 multicast groups.
  - The router is using RSP1B in SSM mode.
  - BDI is configured on the access side of the router.
  - There are 24 EFPs on each bridge domain.
  - You enter a **shutdown** command on the access interface.

  Workaround: There is no workaround.

- CSCty76744

  Symptom: The **show mac-address-table** command does not show all of the EFPs with a given static MAC address; the command only displays the first EFP with the MAC address.

  Conditions: Occurs when you configure the same static MAC address on multiple EFPs.

  Workaround: There is no workaround; however, the issue is cosmetic and functionality is not affected.

- CSCua22323

  Symptom: Bit error rate testing (BERT) does not go in sync state.

  Conditions: Occurs when you configure BERT on the PDH controller in local loopback mode.

  Workaround: Initiate BERT on both ends of the connection.

- CSCua25779

  Symptom: An Ethernet virtual circuit (EVC) interface does not forward IPv4 traffic.

Conditions: Occurs when apply the **encapsulation dot1q** command to an EVC, followed by the **encapsulation untagged** command.

Workaround: Issue a **shutdown/no shutdown** on the EVC interface.

- CSCua35402

  Symptom: The router crashes.

  Conditions: Occurs under the following conditions:

  - The router is running static VPLS with 255 MPLS-TP tunnels and 2000 VCs.
  - The remote PE device reloads.

  Workaround: There is no workaround.

- 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.

- 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.

- CSCua95675

  Symptom: An Ethernet virtual circuit (EVC) interface stops forwarding traffic.

  Conditions: Occurs when:

  - You configure multiple EVCs on a single interface
  - The EVCs have the same outer tag VLAN
  - You remove one of the EVCs from the configuration

  When you remove the EVC, other EVCs with the same outer tag VLAN can stop passing traffic.

  Workaround: Issue a **shutdown/no shutdown** on the Ethernet interface.

- CSCua99096

  Symptom: The **show ima interface** command omits some IMA group information such as ImaGroupSymmetry.

  Conditions: Occurs when you apply the **show ima interface** command.

  Workaround: There is no workaround.

- CSCub61344

  Symptom: Link Control Protocol (LCP) negotiation fails, causing an MLP bundle to stop passing traffic.

  Conditions: Occurs under the following conditions:

- The router is configured with a T1 interface on the OC-3 interface module (IM)
- The OC-3 interface module uses SONET framing
- The T1 serial interface is part of an MLP bundle
- You change the CRC configuration value of the MLP bundle

Workaround: Follow these steps:

- Remove the T1 interface from the MLP bundle.
- Perform a soft OIR (IM reset) on both ends of the connection.
- Wait for the T1 interface to become active.
- Add the T1 interface back into the MLP bundle.

- 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

- CSCub77354

  Symptom: An RSP switchover causes the serial interfaces to flap on the peer device.

  Conditions: Occurs when you perform an RSP switchover by physically removing the active RSP.

  Workaround: Use the following workarounds:

  - Perform an RSP switchover using the **redundancy force-switchover** command.

  Configure the local device to use **clock source line** and the remote device to use **clock source internal**.

- CSCub81445

  Symptom: A link remains active while the router shows the line protocol status as down.

  Link Stays up with Line Protocol status as down.

  Conditions: Occurs when you perform an interface module (IM) OIR, followed by a stateful switchover (SSO).

  Workaround: There is no workaround.

- CSCuc38878

  Symptom: The router loops traffic between two nodes in a ring for approximately 100 ms.

  Conditions: Occurs during a failover when multiple ASR 903 routers are configured as nodes in a ring using Remote LFA FRR.

  Workaround: There is no workaround.

- CSCuc42085

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

Conditions: 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. To date the problem occurs only when the intermediate hops are through an ASR 9000 router.

Workaround: There is no workaround.

- CSCuc44701

  Symptom: The router displays an error message similar to the following: Oct 1 12:07:21.806 IST: %CMRP-3-CHASSIS_MONITOR_READY_TIME_EXCEEDED: R1/0: cmand: Reloading F1 because it has failed to become ready for packet processing

  Conditions: Occurs when you reload the router while running a configuration that contains

  - An egress QoS policy attached to a trunk EFP
  - An encapsulation dot1q statement within the QoS policy that specifies a large range

  Workaround: There is no workaround.

- CSCuc64654

  Symptom: The router is unable to ping the remote customer edge (CE) router.

  Conditions: Occurs when the router is acting as a provider edge (PE) device and is connected to the remote PE using dual loopback interfaces for peering with iBGP sessions.

  Workaround: Use a single loopback interface. Use the same loopback interface for IPv4 and VPNv4 address families.

- CSCuc68699

  Symptom: The router displays a segmentation fault error message at cgmu_nq_ccm_convert and crashes.

  Conditions: Occurs when you:

  - Remove QoS policy from an EFP interface
  - Remove policy-maps and class-maps from the configuration

  Workaround: There is no workaround.

- 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.

- CSCuc88066

  Symptom: The router does not classify egress traffic and the **show policy-map interface** command counters do not increment.

  Conditions: Occurs when you configure an output QoS policy to an EFP interface.

  Workaround: Remove and reconfigure the service policy on the EFP interface.

- CSCuc92350

  Symptom: A connection between two copper SFPs does not become active.

  Conditions: Occurs when two SFP interfaces are connected with one side set to 100 Mbps and the other side set to **negotiation auto**.

  Workaround: Set the speed to 10Mbps at both sides, then configure negotiation auto on one side of the connection.

- CSCuc99908

  Symptom: IEEE 802.1S Multiple STP (MSTP) convergence takes more than 4.1 seconds.

  Conditions: Occurs under the following conditions:

  - An Ethernet interface is acting as the Root forwarding MST port
  - The Ethernet interface is configured with more than 1000 EVCs
  - You perform a **shutdown/no shutdown** on the interface.

  Workaround: To achieve a convergence time of approximately 900 milliseconds with 1000 VLANs on an Ethernet interface, configure MSTP on a trunk EFP.

- 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.

- CSCud04529

  Symptom: The router can drop traffic for approximately 300 milliseconds.

  Conditions: The issue occurs in rare instances when the router is configured in a ring topology with loop-free alternate (LFA) IP fast reroute (IPFRR) and the primary path recovers from a down state.

  Workaround: There is no workaround.

- 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.

- CSCud11843

  Symptom: The router displays a CPU hog error message and crashes.

  Conditions: Occurs when you issue an RSP switchover following an interface flap on the 10 Gigabit Ethernet interface module (IM).

  Workaround: The issue does not occur in the absence of in interface flap on the 10 Gigabit Ethernet IM.

- CSCud15785

  Symptom: The router experiences flapping on REP connections.

  Conditions: Occurs under the following conditions:

  - MAC limiting is enabled and a MAC address is at the maximum value
  - REP is configured with a 200 millisecond LSL ageout timer

  Workaround: Increase the REP timer to above 500 milliseconds or disable the MAC limiting feature.

- CSCud19845

  Symptom: The router drops ping packets over VPN Routing and Forwarding (VRF) connections.

  Conditions: Occurs when you specify a packet size using the **size** parameter.

Workaround: There is no workaround; however, the issue does not occur when you omit the **size** parameter.

- 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.

- CSCud24704

  Symptom: The router crashes.

  Conditions: Occurs when you perform an interface module OIR (reset) on the gigabit Ethernet interface module while the standby RSP is booting.

  Workaround: Perform the IM OIR after the standby RSP boots.

- CSCud26379

  Symptom: The router displays a CWAN OIR Handler traceback error.

  Conditions: Occurs when you perform an interface module OIR (reset) on the gigabit Ethernet interface module, followed by an RSP switchover.

  Workaround: Complete the RSP switchover without resetting the gigabit Ethernet IM.

- 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.

- CSCud28787

  Symptom: The 10 gigabit Ethernet interface module (IM) (IM- A900-IMA1X) flaps.

  Conditions: Occurs when the IM passes high traffic volumes for an extended period of time.

  Workaround: There is no workaround.

- 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.

- CSCud29501

  Symptom: The **show policy-map** command displays an incorrect drop rate value.

  Conditions: Occurs when you configuring a policy map that contains a class that applies QoS policing.

  Workaround: There is no workaround; however, the issue has no functional impact. The router displays the correct number of drops under the policer's exceeded bps value.

- CSCud33329

Symptom: The active RSP displays traceback error messages occurring on the standby RSP.

Conditions: Occurs with the following configuration:

- The router is configured with 1000 multicast groups
- The outgoing interface is a bridge-domain interface (BDI)
- All hosts are receiving a high rate of traffic.

The issue occurs after you issue a stateful switchover (SSO).

Workaround: Avoid performing an SSO with the configuration described.

- 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: The router crashes.

  Conditions: The issue can occur when:

  - The router is configured with multiple ECMP paths
  - MPLS IP is not enabled on one of the ECMP paths

  Workaround: There is no workaround.

- 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.

- CSCud38419

  Symptom: The router crashes when you apply an access control list (ACL) configuration. The issue occurs rarely and when the router is configured at a high scale.

  Conditions: Occurs when:

  - You create and apply IPv6 ACLs
  - You remove the IPv6 ACLs
  - You replace the IPv6 ACLs with IPv4 ACLs

  - The IPv6 ACLs and IPv4 ACLs have the same names

  Workaround: Create IPv4 ACLs with different names from the IPv6 ACLs.

- 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.

- CSCud40930

  Symptom: Some interfaces within a bridge-domain are unable to send outbound L3 multicast traffic.

  Conditions: Occurs when the bridge-domain contains EFP interfaces, some of which are on a port-channel. The issue can also occur after a router reload.

  Workaround: Issue a **shutdown/no shutdown** on the BDI interface.

- 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.

- CSCud44942

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

  Conditions: Occurs when you configure a MEP on an interface.

  Workaround: There is no workaround.

- CSCud45336

  Symptom: The router displays CPU hog error messages and crashes.

  Conditions: Occurs when you reload the router a high number of Structure-agnostic TDM over Packet (SAToP) pseudowires.

  Workaround: There is no workaround.

- CSCud49749

  Symptom: Copper Ethernet interface module (IM) ports remain in a suspended state after stateful switchover (SSO).

  Conditions: Occurs when you create a port-channel with

  - Two links from a copper Ethernet interface to another copper Ethernet interface
  - One link from a copper Ethernet interface to an SFP Ethernet interface

  Workaround: Issue a **shutdown/no shutdown** on copper-to-copper connection interfaces.

- CSCud49980

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

  Conditions: Occurs when you configure CFM MEPs on carrier edge (CE) routers and VPLS on provider edge (PE) routers.

  Workaround: Create an EVC bridge-domain running CFM on the PE router and enable a virtual forwarding interface (VFI) on the bridge-domain.

- CSCud50851

  Symptom: The router experiences flapping on REP connections.

  Conditions: Occurs when you enable MAC limiting at a high scale and the set of MAC addresses changes continuously.

  Workaround: Disable MAC limiting.

- 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.

- CSCud52920

  Symptom: SFP interfaces tied to a port-channel flap.

  Conditions: The issue occurs rarely when the router is passing a high traffic volume.

  Workaround: There is no workaround.

- CSCud56071

  Symptom: The router does not pass loop-free alternate (LFA) IP fast reroute (IPFRR) traffic.

  Conditions: Occurs when the router is configured with 10 or more IPv4 prefixes.

  Workaround: Configure 9 or fewer prefixes.

Resolved Caveats—Cisco IOS XE Release 3.7(2)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.7(2)S.

- CSCua62029

  Symptom: The router crashes.

  Conditions: Occurs when you configure a class-based QoS policy with the following characteristics:

  - The policy is attached to the main interface.
  - The policy classifies on multiple VLANs.
  - The classification statements specify a priority.
  - The classification statements are within a child QoS policy.

  Workaround: There is no workaround.

- CSCua73104

Symptoms: The router does not increment QoS port shaper policy counters displayed by the **show policy interface** command.

Conditions: Occurs when you configure -A class-default policy on a physical interface -A class-based policy on an EVC interface

Workaround: There is no workaround; however, the router applies the QoS policy normally.

- CSCua96186

  Symptom: The router drops cells on a CE-to-CE connection.

  Conditions: Occurs with ATM VCC and VPC cell relay mode with 64-byte traffic. The issue occurs between the ASR 903 and ASR 901 routers.

  Workaround: There is no workaround.

- CSCub69132

  Symptom: The OC-3 interface module crashes.

  Conditions: Occurs when you issue a soft reload on the OC-3 interface module when the

  router is configured with MLPPP at a high scale.

  Workaround: There is no workaround.

- CSCuc36056

  Symptom: Security ACLs with port ranges configured on BDI interfaces will not work on NILE1 ports.

  Conditions: Issue with only on NILE1 ports. NILE0 ports will work properly

  Workaround: There is no workaround.

  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 5/4.1: 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:OF/RC:C CVE ID CVE-2012-5716 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

- CSCuc44394

  Symptom: The router stops passing MLPPP traffic after a Stateful Switchover (SSO).

  Conditions: Occurs when you perform an SSO with a TDM interface module.

  Workaround: There is no workaround.

- CSCuc57130

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

  Conditions: Occurs after an RSP switchover.

  Workaround: There is no workaround.

- 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.

- CSCuc80964

Symptom: Interface module (IM) IM FPGA upgrade fails.

Conditions: Occurs on some IMs when you install an IOS image with bundled FPGA software.

Workaround: Manually upgrade the FPGA.

- CSCuc98590

  Symptom: The router can crash when you remove a boundary clock (BC) configuration.

  Conditions: Occurs very rarely when you remove a BC configuration.

  Workaround: There is no workaround. However, the issue occurs very rarely.

- CSCud12587

  Symptom: When handling IS-IS packets, the router punts the traffic to the Route Switch Processor (RSP) and applies policing to limit the traffic to 1 Mbps.

  Conditions: Occurs when you enable IS-IS over an Ethernet over MPLS (EoMPLS) connection.

  Workaround: Use IS-IS over another connection type or limit the IS-IS traffic to less than 1 Mbps.

- CSCud13535

  Symptom: The router drops imposition traffic sent to a neighbor device over a VPLS pseudowire.

  Conditions: Occurs when the neighbor device configuration includes the **no split horizon group** command.

  Workaround: Remove the **no split horizon group** command from the VPLS neighbor device.

- CSCud28787

  Symptom: The 10 gigabit Ethernet interface module (IM) flaps.

  Conditions: Occurs when the IM passes high traffic volumes for an extended period of time.

  Workaround: There is no workaround.

- CSCud43580

  Symptom: The router does not apply the **bandwidth remaining percent** command within a QoS policy in some instances.

  Conditions: The issue can occur occasionally when:

  - There is a large discrepancy in **bandwidth remaining** values between QoS classes
  - The classes containing the **bandwidth remaining** statements are oversubscribed at a low rate or have a low queue-limit.

  Workaround: Apply the following workaround:

  - Increase the **queue-limit** value to 120 kilobytes or above.
  - If the QoS configuration uses WRED, increase the minimum threshold value.
  - Alter the bandwidth remaining values to reduce the ratio between values.

Open Caveats—Cisco IOS XE Release 3.7(1)aS

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.7(1)aS.

- 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.

- 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.

- CSCty34054

  Symptom: The router displays CPU utilization traceback messages and drops all multicast traffic for 2050 seconds.

  Conditions: Occurs under the following conditions:

  - Multicast is enabled with more than 500 multicast groups.
  - The router is using RSP1B in SSM mode.
  - BDI is configured on the access side of the router.
  - There are 24 EFPs on each bridge domain.
  - You enter a **shutdown** command on the access interface.

  Workaround: There is no workaround.

- CSCty45696

  Symptom: The **show policy-map** command displays incorrect information.

  Conditions: Occurs when you use the **show policy-map** command to display QoS policies on an EFP that has a port shaping QoS policy.

  Workaround: There is no workaround.

- CSCtz55979

  Symptom: The router crashes.

  Conditions: Occurs when you configure CFM, SCE over MPLS, VPLS, or G.8032 services while running SNMP polling.

  Workaround: There is no workaround.

- CSCtz68510

  Symptom: The router displays a CPU HOG message.

  Conditions: Occurs when you remove a PTP configuration.

  Workaround: There is no workaround; however, the issue does not have any functionality impact.

- CSCua62029

  Symptom: The router crashes.

  Conditions: Occurs when you configure a class-based QoS policy with the following characteristics:

  - The policy is attached to the main interface.
  - The policy classifies on multiple VLANs.
  - The classification statements specify a priority.
  - The classification statements are within a child QoS policy.

  Workaround: There is no workaround.

- CSCua96186

  Symptom: The router drops cells on a CE-to-CE connection.

  Conditions: Occurs with ATM VCC and VPC cell relay mode with 64-byte traffic. The issue occurs between the ASR 903 and ASR 901 routers.

  Workaround: There is no workaround.

- CSCub04699

  Symptom: The **bandwidth** and **bandwidth percent** commands do not function correctly.

  Conditions: Occurs when you configure a service-policy with the **priority** and **police** commands in one class and the **bandwidth** or **bandwidth percent** commands in another class.

  Workaround: There is no workaround.

- CSCub48081

  Symptom: The router does not learn remote MEPs on an EVC bridge-domain MEP following an interface module reset (soft OIR). The router displays messages indicating object download failure; the interface status of the xconnect MEP on the peer router displays as administratively down.

  Conditions: Occurs when you

  - Configure offloaded EVC xconnect MEP sessions and the sessions are active
  - Configure EVC bridge-domain MEPs
  - Perform a reset (soft OIR) of the Ethernet interface module

  Workaround: Remove and restore the local MEP configuration on both routers.

- 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.

- 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.

- CSCub69132

  Symptom: The OC-3 interface module crashes.

  Conditions: Occurs when you issue a soft reload on the OC-3 interface module when the router is configured with MLPPP at a high scale.

  Workaround: There is no workaround.

- CSCub78861

  Symptom: Following a reload, the router handles CFM only on 128 VLANs or bridge-domains.

  Conditions: Occurs when the router configuration contains CFM and more than 128 VLANs or bridge-domains.

  Workaround: There is no workaround.

- CSCuc00986

  Symptom: The router drops MPLS TP sessions, impacting traffic.

  Conditions: Occurs following an software upgrade (ISSU).

  Workaround: There is no workaround.

- CSCuc23610

  Symptom: The router does not pass IP traffic with an MPLS LDP tunnel label of Imp-null.

  Conditions: Occurs when the router is switching traffic using IP fast-reroute (FRR).

  Workaround: Configure the **mpls ldp explicit-null** command.

- CSCuc31037

  Symptom: The router stops passing traffic on pseudowire connections.

  Conditions: Occurs in a redundant system following a stateful switchover (SSO).

  Workaround: There is no workaround.

- 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.

- CSCuc36522

  Symptom: The router does not timestamp traffic on port-channel interfaces.

  Conditions: Occurs when you configure a CFM EVC bridge-domain up MEP on a port-channel.

  Workaround: There is no workaround.

- CSCuc42085

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

  Conditions: 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. To date the problem occurs only when the intermediate hops are through an ASR 9000 router.

  Workaround: There is no workaround.

- CSCuc42206

  Symptom: Links on copper SFP interface flap during stateful switchover (SSO).

  Conditions: Occurs when you initiate a stateful switchover (SSO) on a redundant system with a copper SFP.

  Workaround: There is no workaround.

- CSCuc44394

  Symptom: The router stops passing MLPPP traffic after a Stateful Switchover (SSO).

  Conditions: Occurs when you perform an SSO with a TDM interface module.

  Workaround: There is no workaround.

Resolved Caveats—Cisco IOS XE Release 3.7(1)aS

This section documents the issues that have been resolved in Cisco IOS XE Release 3.7(1)aS.

- CSCty63969

  Symptoms: Ping fails to remote MEPs.

  Conditions: Occurs when you configure CFM and ping RMEPs with a packet size of greater than 1478 bytes.

  Workaround: There is no workaround.

- CSCua02058

  Symptoms: When you configure the OC-3 interface module, only 1000 of 1008 interfaces are configurable on the router; of the 1000 interfaces, only 957 become active.

  Conditions: Occurs when you configure interfaces on the OC-3 interface module.

  Workaround: There is no workaround.

- CSCua51772

  Symptoms: The router does not display PID or DOM values.

  Conditions: Occurs with the following SFPs:

  - ONS-SI-155-L2
  - ONS-SI-155-L1
  - ONS-SI-155-I1

  Workaround: There is no workaround.

- CSCua55122

  Symptoms: The OC-3 interface module crashes when you create a high number of ATM IMA interfaces.

  Conditions: Occurs when you configure multiple ATM IMA interfaces with fewer than 16 links per bundle.

  Workaround: Perform a hard OIR on the interface module.

- CSCua87805

  Symptoms: The OC-3 interface module goes into an Out Of Service state.

  Conditions: The issue can occur during bootup or OIR of the OC-3 interface module.

  Workaround: Perform an OIR on the OC-3 interface module.

- CSCua93803

  Symptoms: The **boot system flash** command displays unexpected behavior.

  Conditions: Occurs when you use the **boot system flash** command in either of the following formats:

  - **boot system flash** *filename*—The router does not boot using the specified file.
  - **boot system flash**—The router does not boot the first image in bootflash.

  Workaround: Use the **boot system bootflash** command as follows:

  - **boot system bootflash:** *filename*—Boots a specific file.
  - **boot system bootflash:**—Boots the first image in bootflash.

- CSCua95522

  Symptoms: The router displays the following warning during bootup:

  ```
  "Warning: monitor nvram area is corrupt ... using default values"
  ```

  Conditions: Occurs during bootup and indicates that the NVRAM is corrupted, causing loss of a bootloader variable. To verify the issue, confirm whether the **set** rommon mode command produces output matching the following example:

  ```
  rommon 1 > set
  PS1=rommon ! >
  rommon 2 >
  ```

  The issue can be caused by an error during shutdown or saving the configuration and occurs very rarely.

  Workaround: Set the bootloader variables on the standby RSP.

- CSCua99096

  Symptoms: The **show ima interface** command omits some IMA group information such as ImaGroupSymmetry.

  Conditions: Occurs when you apply the **show ima interface** command.

  Workaround: There is no workaround.

- CSCua99096

  Symptoms: The **show ima interface** command omits some IMA group information such as ImaGroupSymmetry.

  Conditions: Occurs when you apply the **show ima interface** command.

  Workaround: There is no workaround.

- CSCub04699

  Symptom: The **bandwidth** and **bandwidth percent** commands do not function correctly.

  Conditions: Occurs when you configure a service-policy with the **priority** and **police** commands in one class and the **bandwidth** or **bandwidth percent** commands in another class.

  Workaround: There is no workaround.

- CSCub55266

  Symptoms: The router hangs when booting.

  Conditions: Occurs under the following conditions:

  - You issue the boot command without any arguments, e.g. `rommon 1> boot`
  - The router attempts to boot using a non-bootable image in bootflash memory.

  Workaround: There is 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.

- CSCub77285

  Symptom: Some T1/E1 interfaces do not come up.

  Conditions: Occurs with T1/E1 configurations at a high scale; the interfaces display a false alarm.

  Workaround: Reset individual T1/E1 interfaces; after a reset, the interfaces become active.

- CSCub89029

  Symptoms: When the router boots, copper Gigabit Ethernet ports display an up/up status but do not pass traffic.

  Conditions: Occurs when the port has a negotiated speed other than 1 Gigabit, such as 100 Mbps.

  Workaround: Issue a shutdown/no shutdown on affected ports.

- 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.

Open Caveats—Cisco IOS XE Release 3.7(0)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.7.0S.

- 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.

- CSCtw72855

  Symptoms: The router does not pass traffic towards the access side on VCs configured with QoS shaping output policy.

  Conditions: Occurs when you configure a QoS shaping output policy.

  Workaround: There is no workaround.

- CSCty28986

  Symptoms: A configuration with a high number of down MEPs does not function properly.

  Conditions: Occurs when you configure 500 or more down MEPs with 500 or more xconnect configurations between service instances.

  Workaround: Configure no more than 200 CFM sessions.

- CSCty34054

  Symptoms: The router displays CPU utilization traceback messages and drops all multicast traffic for 2050 seconds.

  Conditions: Occurs under the following conditions:

  - Multicast is enabled with more than 500 multicast groups
  - The router is using RSP1B in SSM mode
  - BDI is configured on the access side of the router
  - There are 24 EFPs on each bridge domain
  - You enter a **shutdown** command on the access interface.

  Workaround: There is no workaround.

- CSCty51990

  Symptoms: The router may crash or restart; the console displays a SW_WDOG: expired message.

  Conditions: Occurs under the following conditions:

  - The router is configured with 63 or more instances of a unique EVC configured with a unique bridge domain interface (BDI).
  - The router is sending IGMP joins to one multicast group.
  - You perform a shutdown/no shutdown on the interface sending IGMP join messages.
  - You perform an OIR on the router.

  Workaround: There is no workaround.

- CSCty70119

  Symptoms: Port shaper rate changes do not take effect.

  Conditions: Occurs when QoS policies attached to EVCs on an interface do not include a shaper configuration; the issue does not occur on EFP policies that include a shaper in a class.

  Workaround: Include a shaper in one class of the EFP policy.

- CSCty73362

  Symptoms: The router experiences CPP download failures when sending IGMP join messages.

  Conditions: Occurs when the router is configured with a trunk EFP in SM mode on the access side and is sending IGMP join messages to more than 1970 multicast groups.

  Workaround: There is no workaround.

- CSCty74115

  Symptoms: The router displays traceback and CPU error messages.

  Conditions: Occurs when you configure a high number of MAC address table entries while REP is enabled; the router displays errors during a REP topology change, REP preemption, or when you perform a shutdown/no shutdown on an interface.

  Workaround: Reduce the MAC scale.

- CSCty79987

  Symptoms: CFM up and down MEPs do not reach a scale of 1000 CFM sessions.

  Conditions: Occurs when you configure CFM on a trunk EFP.

  Workaround: There is no workaround.

- CSCtz20087

  Symptoms: The router applies the class-default QoS policy to all outgoing traffic.

  Conditions: Occurs under the following conditions:

  – You configure multiple egress QoS policies on a Gigabit Ethernet interface.

  – You configure a multilink interface with no ingress QoS policy

  Workaround: There is no workaround.

- CSCtz32327

  Symptoms: The router crashes.

  Conditions: Occurs when you perform an OIR on the OC-3 IM after an SSO switchover.

  Workaround: There is no workaround.

- CSCtz40690

  Symptoms: Traceroute to a remote MEP fails.

  Conditions: Occurs under the following conditions:

  – You configure a EVC bridge-domain MEP on a remote device

  – You configure a MIP on a trunk EFP on an intermediate device.

  – You issue the **traceroute** command to the remote MEP

  Workaround: There is no workaround.

- CSCtz49927

  Symptoms: Traffic floods on an EFP interface.

  Conditions: Occurs when you configure a multicast static MAC on a bridge-domain and add more than 24 EFPs.

  Workaround: Remove the extra EFPs from the bridge-domain.

- CSCtz55979

  Symptoms: The router crashes.

  Conditions: Occurs when you configure CFM, SCE over MPLS, VPLS, or G.8032 services while running SNMP polling.

  Workaround: There is no workaround.

- CSCtz75641

  Symptoms: The router does not pass traffic over an EVC PC port-channel.

  Conditions: Occurs when you perform the following sequence of actions:

  – Remove an EVC member link from a port-channel interface

  – Configure a trunk EFP -Set the interface to default

  – Add the EVC member link back into the port-channel interface

  Workaround: Reload the router.

- CSCtz77491

  Symptoms: The router stops passing traffic and crashes.

  Conditions: Occurs when you remove a QoS policy applied to a trunk EFP.

  Workaround: There is no workaround.

- CSCtz82725

  Symptoms: The router intermittently drops packets.

  Conditions: Occurs on 10 Gigabit Ethernet core links when the router passes traffic for an extended period and running a VPLS-TP configuration.

  Workaround: There is no workaround.

- CSCtz87262

  Symptoms: The router's convergence time is greater than 90 seconds when you clear the multicast routing table.

  Conditions: Occurs with a ring topology with 2 parallel paths from the FHR to the LHR Receivers.

  Workaround: There is no workaround.

- CSCtz90273

  Symptoms: The router duplicates multicast traffic when configured as a static rendezvous point (RP) node.

  Conditions: Occurs under either of the following conditions:

  - You remove Auto RP announce configurations on all routers.
  - You configure the router as a static RP and enable multicast traffic

  Workaround: Select an RP mode: static, auto, or bootstrap router (BSR) and avoid switching dynamically between RP modes.

- CSCtz92857

  Symptoms: MAC learning fails and the router displays FIFO table overflow messages.

  Conditions: Occurs with a MAC security configuration running at high scale.

  Workaround: There is no workaround.

- CSCtz92914

  Symptoms: L3 multicast replication fails on some of the EFPs.

  Conditions: Occurs under the following conditions:

  1. You configure a group of EFPs and map each EVC to a different bridge-domain.
  2. You create a QoS policy-map on each EVC.
  3. All BDI send IGMP joins to single multicast group.
  4. The router initiates multicast data traffic
  5. You remove and reconfigure some of the EFPs

  Workaround: Configure the EFPs and bridge-domains and initiate traffic flow before attaching QoS policies.

- CSCua03439

  Symptoms: The router displays error messages similar to the following:
  %EVENTLIB-3-CPUHOG: SIP0: nile_mgr:

Conditions: Occurs when you boot the router running QoS configurations at a high scale, particularly queues.

Workaround: There is no workaround.

- CSCua12366

  Symptoms: The IOMD process corresponding to OC3 IM (interface module) crashes.

  Conditions: Occurs when you perform an IM OIR after the router has been passing traffic.

  Workaround: There is no workaround; the IM recovers after the crash and resumes traffic.

- CSCua16143

  Symptoms: IPv6 BFD sessions drop after you perform an SSO.

  Conditions: Occurs when you perform an SSO on the router while running an IPv6 BFD configuration. The issue does not occur with an IPv4 BFD configuration.

  Workaround: After SSO, perform a shutdown/no shutdown on the physical interface.

- 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.

- CSCua25932

  Symptoms: Convergence caused by an interface flap takes more than 50 milliseconds.

  Conditions: Occurs when you enable BGP PIC core and LFA FRR at the same time.

  Workaround: Use LFA FRR, as it converges in less than 50 milliseconds for BGP VPNv4 prefixes.

- CSCua33453

  Symptoms: A CFM configuration crashes after passing traffic for several hours.

  Conditions: Occurs when you create the following configuration:

  - A port-channel interface configured with an EVC and applied to a bridge-domain
  - A physical interface configured as a trunk EFP
  - The **offload sampling** command is configured on both interfaces

  Workaround: There is no workaround.

- CSCua33788

  Symptoms: The router does not pass multicast traffic consistently; only some traffic passes.

  Conditions: Occurs when you configure 255 EVCs spanning across different slots on the router.

  Workaround: There is no workaround.

- CSCua36065

  Symptoms: The router forwards multicast traffic on 63 out of 255 multicast output interfaces (OIFs).

  Conditions: Occurs when you configure the following:

  - 255 EVCs on a single port mapped to 255 BDIs (one EVC per BDI) using rewrite tagging.
  - 255 BDIs which send IGMP v2 Joins to a single multicast group.
  - 255 EVCs configured as a routed port with the port a member link of a port-channel.

  - 255 EVCs configured on a port-channel and sending multicast traffic to a multicast group

  Workaround: There is no workaround.

- CSCua38675

  Symptoms: The router displays a QoS Stats Stalled error message and stops applying QoS configurations.

  Conditions: Occurs when you apply a flat VLAN policy to a trunk EFP interface.

  Workaround: There is no workaround.

- CSCua41400

  Symptoms: QoS classification does not function properly.

  Conditions: Occurs when you create QoS class containing a policy that classifies on both ACL and DSCP value.

  Workaround: There is no workaround.

- CSCua43843

  Symptoms: QoS classification fails when you configure the **match vlan** command under a class-map.

  Conditions: Occurs when the router is configured with an EVC with the **encapsulation default** command.

  Workaround: Change the encapsulation to dot1q.

- CSCua52162

  Symptoms: The router does not learn remote CFM MEPs on EFP interfaces.

  Conditions: Occurs when you configure rewrite push operation on an EFP interface.

  Workaround: There is no workaround.

- CSCua52187

  Symptoms: The router crashes when you attach a QoS policy.

  Conditions: Occurs when you apply a QoS class-map that

  - Matches traffic based on an ACL
  - References an ACL not present in the running configuration
  - Is referenced in a policy with a DSCP marking action

  Workaround: There is no workaround.

- CSCua54547

  Symptoms: The router does not learn remote CFM MEPs.

  Conditions: Occurs under the following conditions:

  - The router is connected to the remote MEPs via a pseudowire connection.
  - The router is configured with MPLS on a bridge-domain interface
  - Dot1q encapsulation is configured on an EFP.

  Workaround: Configure the EFP encapsulation as untagged.

- CSCua55122

  Symptoms: The OC-3 interface module crashes when you create a high number of ATM IMA interfaces.

Conditions: Occurs when you configure multiple ATM IMA interfaces with fewer than 16 links per bundle.

Workaround: Perform a hard OIR on the interface module.

- CSCua56761

  Symptoms: Gigabit Ethernet port 0/5/1 does not timestamp Ethernet OAM Y.1731 packets.

  Conditions: Occurs when you configure Ethernet OAM on port 0/5/1 of a copper or SFP Gigabit Ethernet interface module.

  Workaround: There is no workaround.

- CSCua61909

  Symptoms: Changes to the **police** QoS command do not take effect.

  Conditions: Occurs under the following conditions:

  – You create a QoS policy with a policer and attach the policy to an interface.

  – You make a dynamic change to the police action such as altering the policer value, conform-action value, or exceed-action value.

  Workaround: Remove the policy from the interface, make the necessary changes, and re-attach the policy.

- CSCua67795

  Symptoms: The router does not transmit Y.1731 Delay Measurement Message (DMM) values using QinQ encapsulation.

  Conditions: Occurs with the following configuration:

  – An EFP is configured and applied to a bridge-domain.

  – The EFP is configured with QinQ encapsulation.

  – A Y.1731 Delay Measurement Message (DMM) value is applied.

  – The Y.1731 traffic uses a CoS value other than 0.

  Workaround: There is no workaround.

- CSCua70585

  Symptoms: The router does not update Gigabit Ethernet interface bitmaps after you remove an EFP from a multicast group. The router can display CPU hog messages.

  Conditions: Occurs under the following conditions:

  – You create an EFP on a single bridge-domain interface (BDI)

  – The router receives IGMP v2 or v3 SSM Joins to the BDI

  – You create a second EFP on the same BDI

  – You delete the first or second EFP.

  Workaround: There is no workaround.

- CSCua72298

  Symptoms: The router stops passing traffic on 10-15 HDLC interfaces.

  Conditions: Occurs when you configure a large number of HDLC interfaces: 84 per port or 336 per interface module.

  Workaround: Remove and reconfigure the interface.

- CSCua73104

Symptoms: The router does not increment QoS port shaper policy counters displayed by the **show policy interface** command.

Conditions: Occurs when you configure -A class-default policy on a physical interface -A class-based policy on an EVC interface

Workaround: There is no workaround; however, the router applies the QoS policy normally.

Resolved Caveats—Cisco IOS XE Release 3.7(0)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.7.0S.

- CSCtx00558

  Symptoms: The standby RSP crashes during bootup.

  Conditions: The issue can occur during bootup of a dual RSP system.

  Workaround: There is no workaround.

- CSCtx02522

  Symptoms: The router displays intermittent traceback errors.

  Conditions: Occurs when you configure REP.

  Workaround: There is no workaround.

- CSCty42336

  Symptoms: BFD sessions flap on the router.

  Conditions: Occurs when the router is running IP BFD sessions in echo mode with 64 200ms X3 timers.

  Workaround: There is no workaround.

- CSCty74129

  Symptoms: A REP topology may reconverge during an RSP switchover. The consoles displays REP no-neighbor messages.

  Conditions: Occurs when you configure REP between two Cisco ASR 903 Routers and you perform an RSP switchover.

  Workaround: There is no workaround.

- CSCty77466

  Symptoms: The port shaper rate changes on RSP switchover.

  Conditions: Occurs under the following conditions:

  - You attach a shaper policy to an interface
  - The interface is configured with multiple EVCs
  - The EVC has a QoS policy attached.

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

- CSCtz03779

  Symptoms: The standby RSP crashes during ISSU.

  Conditions: Occurs when you perform an ISSU downgrade from Release 3.6 to 3.5.

  Workaround: There is no workaround.

- CSCtz09708

  Symptoms: The router cannot establish a PTP session when configured as a PTP slave device.

  Conditions: Occurs when the router receives PTP packets containing a VPN or VRF label.

  Workaround: There is no workaround.

- CSCtz54650

  Symptoms: REP flaps intermittently.

  Conditions: Occurs with a hybrid REP configuration containing ports with and without Fast LSL enabled.

  Workaround: Configure all interfaces with Fast LSL.

- CSCtz56517

  Symptoms: The router drops MPLS packets with a checksum of 0xFFFF.

  Conditions: Occurs when the ASR 903 is acting as a label disposition edge label switch router (LSR).

  Workaround: There is no workaround.

- CSCtz61153

  Symptoms: The ASR 903 does not establish BFD neighbors over port-channel 16.

  Conditions: Occurs when you configure BFD on port-channel 16 between two ASR 903 routers.

  Workaround: Configure BFD on port-channels 1 - 15.