CHAPTER **9**

Restrictions and Caveats in Cisco IOS XE 3.8 Releases

This chapter provides information about restrictions and caveats in Cisco IOS XE 3.8 releases.

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

This chapter contains the following sections:

Limitations and Restrictions

The following sections describe the Cisco ASR 903 Router limitations in IO S XE 3.8 releases:

Limitations and Restrictions in Cisco IOS XE Release 3.8(2)S

There are no changes in limitations and restrictions in Cisco IOS XE Release 3.8(2)S; the restrictions from Cisco IOS XE Release 3.8(0)S still apply.

Limitations and Restrictions in Cisco IOS XE Release 3.8(1)S

Cisco IOS XE Release 3.8(1)S introduces the following new limitations:

EFP Limitation

- The Cisco ASR 903 Router supports a maximum of 36 trunk EFPs; this release increases the maximum number from 24 to 36.

All other restrictions from IOS XE Release 3.8(0)S still apply.

Limitations and Restrictions in Cisco IOS XE Release 3.8(0)S

The following limitations apply to the Cisco ASR 903 Router in IOS XE Release 3.8(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.

- High Availability (HA) is not supported with IMA.

Bidirectional Forwarding Detection Limitations

- The ASR 903 does not support BFD timers with a value of less than 200 ms x 3 (using a multiplier of 3) for software-based BFD sessions.

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.

Dying Gasp Limitations

The ASR 903 supports dying gasp under the following scenarios:

- Ethernet OAM is disabled

- Interface is shut down

- Interface enters error-disabled state

- Router reload

Dying Gasp is not supported in the event of a power failure.

EFP Limitations

- QinQ is not supported on trunk EFP interfaces.

- The Cisco ASR 903 Router supports a maximum of 24 trunk EFPs.

Equal Cost Multipath Limitation

- The Cisco ASR 903 Router 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.

- Fragmentation is not supported with Multicast traffic.

IPv6 Limitations

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

- IPv6 Neighbor Discovery (ND) cache timer expiry is 4 hours. To prevent the neighbour adjacency from being deleted after the timer expires:

    - configure hardware based BFD sessions with the neighbours, or

    - configure static IPv6 neighbours, or

    - configure the **ipv6 nd cache expire timer refresh** command.

IS-IS Limitations

- IS-IS over IPv6 is not supported on VRF instances.

- Only one IS-IS process is permitted when you configure IS-IS with the **address-family ipv6** and **bfd-all-interfaces** commands.

- The IS-IS total and per-stream convergence time increases as the number of prefixes increases.

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.
- The optical interface module is designed for OC-3 and OC-12 traffic, but OC-12 functionality is not currently supported.
- MPLS-TP is not supported over POS interfaces.
- Multicast is not supported on POS, MLPPP and OC-12 interfaces.
- MPLS is supported only on PoS and MLPPP interfaces; MPLS on T1/E1 links is not supported.
- IP-FRR and BFD-triggered FRR are not supported on MPLS over POS links.
- Fragmentation is not supported with Multicast traffic on PoS interfaces.
- QoS is not supported with Multicast traffic on PoS interfaces.
- QoS is supported on POS interfaces on optical interface module.
- Three-level QoS policies are not supported on OC-3/OC-12 serial, MLPPP, and PoS interfaces. You can only apply QoS policies on two levels on these interfaces.

Pseudowire/AToM Limitation

- The Cisco ASR 903 Router supports ATM over MPLS N-to-one cell mode for a single ATM Virtual Channel Connections (VCCs) or Permanent Virtual Circuits (PVCs) to a pseudowire, but does not support mapping to multiple VCCs or PVCs.
- The Cisco ASR 903 Router does not support ATM over MPLS one-to-one cell mode.
- The Cisco ASR 903 Router supports pseudowire ping using the CW method; pseudowire ping using the TTL method is not supported.
- The Cisco ASR 903 Router supports a maximum of 2000 pseudowires in any combination.

The following pseudowire (PW) features are supported over MPLS-TP connections:

- ATM over MPLS PWs
- ATM attachment circuits
- AAL5 Encapsulation
- ATM VC Class Support
- Cell Relay including VC mode, VP mode, and Packed Cell Relay
- CESoPSN
- L2VPN pseudowire redundancy
- Multi-segment PWs
- PW OAM/Status TLV Support
- PW Redundancy
- SAToP

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

- ATM OAM Cell Emulation for ATM AAL5 over MPLS on PVC and in VC Class.
- BFD / VCCV over ATM AC over MPLS TP
- BFD/ VCCV over TDM PW over MPLS TP Manageability
- Ethernet VLAN to Ethernet VLAN L2VPN interworking (bridged and routed modes)
- Ethernet VLAN to ATM AAL5 L2VPN Interworking (bridged and routed modes)

- Ethernet port to ATM AAL5 PVC L2VPN Interworking (bridged and routed modes)

- Layer 2 QoS features such as classifying or marking based on an L2 value

- MIB support including PW-TDM-MIB, PW-ATM-MIB, and PW-CESOPSN-MIB

- N:1 PVC Mapping with non-unique VPI (N>1)

QoS Limitations

For a description of QoS features and limitations on the Cisco ASR 903 Router in Release 3.8S, see http://www.cisco.com/en/US/docs/routers/asr903/software/guide/chassis/Release3.8.0S/ASR903-Chassis-SW-38.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.

- 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.

VPLS BGP Signaling

- TE as core interface is supported for VPLS BGP Signalling but TE as preferred path is *not* supported.

- MAC Flushing is *not* supported in this release for VPLS BGP Signaling.

- Templates are *not* supported in this release for VPLS BGP Signaling.

- Support for H-VPLS is available only for the hierarchical route reflector (RR) model.

- BGP Signaling Inter-AS Option A is supported in this release. BGP Signaling Inter-AS Option B and Inter-AS Option C are *not* supported in this release.

- Maximum number of supported BGP Signaling neighbors per VFI is 32.

- When route designator (RD) is explicitly configured within the same VPLS domain, the virtual forwarding interface (VFI)s with the same VPN ID on different PE's must have the same RD configured (as the auto-generated RD is same for Intra AS). Thus, all the PE's within a VPLS domain must have the same RD. See Example: Configuring VPLS BGP Signaling with Explicit RD Configurations:, page 6.

    For more information, see *VPLS BGP Signaling.*

Example: Configuring VPLS BGP Signaling with Explicit RD Configurations:

```
l2vpn vfi context TEST1
 vpn id 1
autodiscovery bgp signaling bgp
  ve id 1
  ve range 100
  rd 2:1        ---> RD must be same for all the VFI's in all the PE's
  route-target export 2:1
  route-target import 2:1
  no auto-route-target

router bgp 100
bgp graceful-restart
neighbor 209.165.200.224 remote-as 100
neighbor 209.165.200.224 update-source Loopback1
!
address-family l2vpn vpls
  neighbor 209.165.200.224 activate
  neighbor 209.165.200.224 send-community extended
  neighbor 209.165.200.224 suppress-signaling-protocol ldp
exit-address-family
```

Caveats in Cisco IOS XE 3.8S 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 3.8S releases. The following information is provided for each caveat:

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

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

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

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

The following sections describe the open and resolved caveats in 3.8S Releases:

Open Caveats—Cisco IOS XE Release 3.8(2)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.8(2)S.

- CSCua77688

  Symptom: The router experiences remote CFM MEP flapping.

  Conditions: This issue 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.

- CSCub63072

  Symptom: Traffic drop of more than 50ms observed after a network failure occurs even though LFA FRR and BGP PIC Core are configured.

  Conditions: This issue occurs when there is a network failure.

  Workaround: There is no workaround.

- CSCuc08397

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

  Conditions: This issue occurs when encapsulation default is configured in the Core.

  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 following error message:

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

  Conditions: This issue 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.

- CSCuc62168

  Symptom: FMFP-3-OBJ_DWNLD_TO_CPP_FAILED error messages seen after a HA switchover is performed when the standby RP is booting.

  Conditions: This issue occurs when CFM offloads with a CC interval of 3.3/10/100ms.

  Workaround: There is no workaround.

- CSCuc70509

  Symptom: Packet rate counters (packets per second) are not cleared to 0 when interface goes down.

  Conditions: This issue occurs on all TDM interfaces like serial, MLPPP, and POS. The issue is observed on controller shutdown and not observed on interface shutdown.

  Workaround: There is no workaround.

- CSCuc93653

  Symptom: Replication fails on the newly added BDIs for Trunk EFP.

Conditions: This issue occurs when new BDIs are added to Trunk EFP with static join.

Workaround: Use dynamic join to add the BDIs.

- CSCud04161

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

    Conditions: This issue occurs under any of the following conditions:

    –You dynamically add a member link to a port-channel.

    –You issue a **shutdown** command followed by **no shutdown** command on a member link of a port-channel.

    Workaround: Wait for PTP to synchronize before configuring DMM scheduling.

- CSCud09142

    Symptom: Fp active errors are displayed after removing the tunnel-tp interface with high-availability configured.

    Conditions: This issue occurs after removing the tunnel-tp interface.

    Workaround: There is no workaround.

- CSCud28982

    Symptom: The router does not process egress QoS 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.

- CSCud30554

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

    Conditions: This issue occurs during object cleanup and during the VC deletion.

    Workaround: There is no workaround.

- CSCud37927

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

    Conditions: This issue occurs under the following conditions:

    – UP MEP and more than one port on the core side connected to the other router.

    – If REP or STP is already configured on core interface, and then UP MEP is configured.

    – REP or STP is running and one of the port is ALT or BLK state and a **shutdown** followed by a **no shutdown** is performed on the interface. Or an OIR of the IM is performed causing REP/STP state changes and the FPGA gets stuck.

    Workaround: There is no workaround.

- CSCud61551

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

    Conditions: This issue occurs under unknown conditions.

    Workaround: Reload the router.

- CSCud64436

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

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

Workaround: There is no workaround.

- CSCud89451

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

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

    Workaround: There is no workaround.

- CSCud98985

    Symptom: Invalid command errors were detected for a few commands.

    Conditions: This issue occurs on executing **show tech-support** command.

    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.

- CSCue01419

    Symptoms: EIGRP neighborship is lost on OC-3 IM and OC-12 IM interfaces configured on port 0.

    Conditions: This issue occurs on interfaces configured on port 0 of OC-3 IM and OC-12 IM. This issue is not seen on ports 1,2 or 3.

    Workaround: Perform a shutdown followed by no shutdown on interfaces configured on port 0. Alternatively remove EIGRP and configure again.

- 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.

- 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.

- CSCue19836

    Symptom: Controller flaps are observed on the CE routers with MR-APS configured on the PE routers with CEM circuit configuration.

    Conditions: This issue occurs when the controllers on CE routers flap. This issue occurs when MR-APS is configured on PEs having CEM circuit for corresponding controllers.

    Workaround: There is no workaround.

- CSCue35103

Symptom: CPU utilization is high after executing the show mac-address-table command.

Conditions: This issue occurs after scaled MAC entries are learned over the BD.

Workaround: Execute the command with reduced term length.

- CSCue40248

  Symptom: Traffic does not flow through newly created MLP interfaces after a switchover is performed.

  Conditions: This issue occurs after you have a newly created MLP interface terminated under a VRF and a switchover is performed.

  Workaround: There is no workaround.

- CSCue43036

  Symptom: %IDBINDEX_SYNC-4-RESERVE traceback seen on OC-12 card type.

  Conditions: This issue occurs after the card type is set the to OC-12 and the router is reloaded. This issue is seen on a HA system with POS configuration.

  Workaround: There is no workaround.

- CSCue51682

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

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

  Conditions: This issue occurs with REP fast LSL (with lsl-ageout 200msec) is configured and when a burst of new MAC address (usually > 4k) is getting learnt into the system.

  Workaround: Remove fast LSL from the REP configuration

- CSCue54997

  Symptom: Two input clock sources are accepted from same OC-3 IM but the system can support only one input clock source per OC-3 IM.

  Conditions: This issue occurs when two input clock sources are getting accepted from same OC-3 IM.

  Workaround: There is no workaround. Do not configure the second input clock source from same OC-3 IM or remove both OC-3 IM sources and exit the configuration and configure the desired OC-3 IM controller alone.

- CSCue75372

  Symptom: TIME-HOG messages are seen during an IM OIR.

  Condition: This issue occurs when default and IP template is used.

  Workaround: There is no workaround.

- CSCue96886

  Symptoms: 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: Reload the Router.

- CSCuf15768

Symptom: Multicast traffic is not bridged with REP.

Conditions: This issue occurs when multicast traffic flows on the REP configured interfaces.

Workaround: Unconfigure and configure REP on the interfaces.

- CSCuf61024

    Symptom: TDM and OC-3 IM continuously crashes enters inserted state after ISSU is performed.

    Conditions: This issue occurs after ISSU is performed.

    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.

- CSCuf80482

    Symptom: Configuration synchronization fails from active to standby IOMD.

    Conditions: This issue occurs on IM OIR.

    Workaround: Perform a soft reset of the IM or the interface flap.

- CSCuf86247

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

    Conditions: This issue occurs when you use SNMP MIB variables related to BDI interface counters.

    Workaround: There is no workaround.

- CSCuf89725

    Symptom: After IM OIR the remote MEP shows BLK state on CFM offload.

    Conditions: This issue occurs when CFM MEP is configured an IM OIR is performed.

    Workaround: There is no workaround.

- CSCug05491

    Symptom: The router drops traffic on VPLS circuits.

    Conditions: This issue occurs when the following is performed:

    - Configure REP with or without VLAN load balancing
    - Configure VPLS VFI on the VLANs
    - Issue an stateful switchover (SSO).

    Workaround: There is no workaround.

- CSCug05647

    Symptom: Interface counters do not get updated with IP traffic.

    Conditions: This issue occurs when performing a back-to-back ping on the connected interfaces.

    Workaround: Perform a router reload.

- 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.

- 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.

Resolved Caveats—Cisco IOS XE Release 3.8(2)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.8(2)S.

- CSCub80685

  Symptom: Ping failure observed and BFD or OSPF flaps on BDI shut.

  Conditions: This issue occurs after shutting down the BDI interface which is receiving IPv4 or IPv6 traffic. Similar conditions occur on no EFP or BDI configured or no IP address is configured.

  Workaround: Stop routing traffic into shut BDI port.

- CSCub89304

  Symptom: Remote meps not learnt for CFM UP MEPS on EVC BD.

  Condition: This issue occurs when IP MEPS are configured on EVC BD and Core side has port-channel with Trunk EFP configured.

  Workaround: There is no workaround.

- CSCub89531

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

  Conditions: This issue occurs after an stateful switchover (SSO) is performed.

  Workaround: Issue another SSO or reload the router.

- CSCuc41871

  Symptoms: ATM interfaces stay down during normal operations.

  Conditions: This issue occurs under the following conditions:

  1. Post router reload is performed

  2. Peer interface cable is pulled out & put back in.

  Workaround: Perform an interface reset by issuing the **shutdown** command followed by a **no shutdown** command.

- CSCuc76353

  Symptom: Boot flash is inaccessible in ROMMON and IOS prompt.

  ```
  "dir bootflash:" CLI does't display boot flash contents.
  ```

  Condition: This issue is observed randomly on bootup. This issue is mostly observed when access to the boot flash gets interrupted because of system reload or system crash. In these cases, boot flash goes to unknown state and is not accessible either from the ROMMON or IOS.

  Workaround: Perform an OIR or power cycle of the RSP to recover the boot flash errors.

- CSCud13242

  Symptom: The Cisco ASR 903 router does not display an alarm when nV satellite authentication fails.

  Conditions: This issue occurs when the ASR 9000 and ASR 903 are in an nV satellite configuration and the routers are configured with a different serial-number value.

  Workaround: There is no workaround.

- CSCud26812

  Symptom: The router CLI does not display some SFP PIDs.

  Conditions: This issue 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.

- CSCud29479

  Symptom: The router stops applying QoS configurations.

  Conditions: Occurs under the following conditions:

  –An Ethernet interface is configured with a single service instance

  –A QoS policy is attached to the service instance

  –The QoS policy contains a single class containing a match EFP statement.

  –You reset the interface to the default configuration.

  Workaround: There is no workaround.

- CSCud30806

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

  Conditions: This issue occurs when you configure a policy with a class-map containing **match-al**l configurations for two different **prec** values.

  Workaround: There is no workaround.

- CSCud34346

  Symptom: The router crashes with multiple ECMP paths configured.

  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: This issue 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.

- CSCud38589

    Symptom: DMM session stops working.

    Conditions: This issue occurs when DMM is configured on bridge domain UP MEP, with redundant links on the Core side, which are in STP Forwarding or blocked state. The issue is observed when the STP forward port is shut.

    Workaround: Restart the IP SLA session or **unshut** the port and bring it forward state.

- CSCud44942

    Symptom: Remote MEPS are not learnt for port MEPs.

    Conditions: This issue occurs when we configure any EFP on the interface, which has port-me configurations, causing the port MEP to stop working.

    Workaround: There is no workaround.

- CSCud48298

    Symptom: The Cisco ASR 903 dataplane fails on bootup of the CEM PW after a switchover is performed.

    Conditions: This issue occurs after a switchover is performed.

    Workaround: There is no workaround.

    CSCud50944

    Symptom: The router drops traffic on an MLPPP bundle.

    Conditions: This issue 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.

- CSCud64034

    Symptom: The T1 interfaces do not come up after a SSO.

    Conditions: This issue occurs under the following conditions:

    –Configure T1 interfaces and verify that they come up

    –Perform an SSO

    –Verify the interfaces and check for traffic flowing through the interfaces

    –Unconfigure T1 interfaces.

    –Reload the standby RSP

    –Configure T1 interfaces. The T1 interfaces do not come up.

    Workaround: Perform an IM OIR on the router.

- CSCud76770

    Symptom: Convergence time for FRR link or node protection is more than 2 seconds.

    Conditions: This issue occurs when NNHOP backup tunnels are configured in a ring topology.

    Workaround: There is no workaround.

- CSCud76957

    Symptom: Traffic gets dropped during egress when service instance is configured.

    Conditions: This issue occurs when service instance is configured.

    Workaround: Unconfigure the service instance and reconfigure it again.

- CSCud90890

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

    Conditions: This issue occurs when a Trunk EFP on port-channel has members on ASIC#1, the routing traffic does not egress on those ports.

    Workaround: There is no workaround.

- CSCud90955

    Symptom: The following console messages are seen whenever BFD session is created or modified.

    ```
    Jan  3 06:34:52.481: %HANDOFF_FUD-6-QDR_MULTI_BIT_ERROR_START: SIP1: nile_mgr:
    Handoff FPGA could encounter MBE,  check at start of create update BFD session
    Jan  3 06:34:52.481: %HANDOFF_FUD-6-QDR_MULTI_BIT_ERROR_END: SIP1: nile_mgr:  Handoff
    FPGA could encounter MBE, check at end of create update BFD session
    Jan  3 06:34:53.167: %HANDOFF_FUD-6-QDR_MULTI_BIT_ERROR_START: SIP0: nile_mgr:
    Handoff FPGA could encounter MBE,  check at start of create update BFD session
    Jan  3 06:34:53.167: %HANDOFF_FUD-6-QDR_MULTI_BIT_ERROR_END: SIP0: nile_mgr:  Handoff
    FPGA could encounter MBE, check at end of create update BFD session
    ```

    Conditions: This issue occurs when BFD sessions are created or modified.

    Workaround: There is no workaround. This issue has no service impact.

- CSCud96604

    Symptom: 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.

- 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.

- CSCue10037

    Symptom: Crash observed on the router.

    Conditions: This issue after when CFM is offloaded and MEPs with 3.3ms were scaled on port-channel with Trunk EFP. This issue occurs after **shutdown** command followed by a **no shutdown** command is executed on the member links of port-channel.

    Workaround: Configure around 50-100 CFM sessions.

- 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.

- CSCue16828

  Symptom: Back-to-Back ping failure observed on a PC with Core side Trunk EFP with BDI configured.

  Conditions: This issue occurs when a PC with Core side Trunk EFP with BDI configuration is changed.

  Workaround: Do not change the PC in Core side.

- 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.

- CSCue25146

  Symptom: The standby OC-3 IM gets reloaded after the controller flaps in active console.

  Conditions: This issue occurs after configuring ATM and Controller and a **shutdown** command followed by a **no shutdown** command is issued when the controller in active.

  Workaround: There is no workaround.

- CSCue25267

  Symptom: The standby RSP reloads on an OC-3 interface module OIR on the active RSP. A crash was observed but core file generated is incomplete.

  Conditions: This issue occurs when the active RSP is booted up first followed by the standby RSP. This issue occurs when APS configurations with serial links are present on the router and IM OIR is performed.

  Workaround: There is no workaround.

- CSCue25567

  Symptom: Quack authentication failure message seen on console.

  Conditions: This issue is seen randomly.

  Workaround: Reload the router.

- CSCue27652

  Symptom: ATM interfaces get deleted after SSO is performed.

  Conditions: This issue occurs after an the ATM interfaces are deleted on the standby RSP after an IM OIR is performed.

  Workaround: There is no workaround.

- CSCue30481

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

  Condition: Reload the router with saved syncE configuration.

  Workaround: Unconfigure and configure 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.

- CSCue34597

  Symptom: CHAP authentication process timed out. The PPP interface and multilink bundle does not come up.

  Conditions: This issue occurs when PPP or MLPPP is configured and PPP authentication is enabled.

  Workaround: Remove CHAP authentication from interface.

- CSCue40020

  Symptom: Interior Gateway Protocol (IGP) flap or MPLS-enabled interface flap with 600 Layer2 VPN configured and 6000 Layer3 VPN configured can cause a crash.

  Conditions: This issue occurs after the IGP flaps continuously.

  Workaround: Configure IGP routes less than 100. Scale of Layer2 or Layer3 VPN configuration should be less than 100 to avoid a crash.

- 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.

- CSCue43250

  Symptom: IMA configurations cannot be parsed correctly after a router reload.

  Conditions: This issue occurs after the A903-IM40S is inserted in bay 4 or bay 5 of the Cisco ASR903 router and when the IMA and ATM interfaces are adjacent.

  Workaround: Insert the IM in bay 0 or bay 3 for the IMA and ATM parsing to work or reconfigure the ATM and IMA interfaces.

- CSCue45306

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

  Conditions: This issue occurs after a SSO is performed.

  Workaround: Perform a router reload.

- CSCue47317

  Symptom: ISSU may get impacted due to synchronization damage.

  Conditions: This issue occurs after modifying the TDL structures.

  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 closing 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.

- 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 are observed 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.

- CSCuf79504

  Symptom: ATM Virtual Channel Connections (VCCs) creation on standby RSP fails.

  Conditions: This issue occurs after issuing **shutdown** command followed by **no shutdown** command on the multiple controller on active RSP.

  Workaround: There is no workaround.

Open Caveats—Cisco IOS XE Release 3.8(1)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.8(1)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.

- CSCtz65778

  Symptom: The control plane goes down with VPNv6 traffic.

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

  Workaround: There is no workaround.

- 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.

- CSCub18160

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

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

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

Workaround: There is no workaround.

- CSCub41772

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

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

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

- 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.

- CSCud01908

    Symptom: The **show platform software object-manager fp active statistics** command shows 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: There is no workaround.

- CSCud06772

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

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

    Workaround: Configure software BFD sessions.

- CSCud07085

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

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

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

- 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.

- CSCud27333

    Symptom: The router crashes continuously.

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

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

- CSCud29479

    Symptom: The router stops applying QoS configurations.

    Conditions: Occurs under the following conditions:

    – An Ethernet interface is configured with a single service instance

> > – A QoS policy is attached to the service instance
> >
> > – The QoS policy contains a single class containing a **match efp** statement.
> >
> > – You reset the interface to the default configuration.
>
> **Workaround:** There is no workaround.

- 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.

- CSCud56262

  Symptom: The router stops passing traffic on virtual circuits.

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

  Workaround: Reload the router.

- CSCud64436

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

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

  Workaround: There is no workaround.

- CSCud89451

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

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

  Workaround: There is no workaround.

- CSCud95359

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

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

  Workaround: There is no workaround.

- CSCue01419

  Symptom: The router loses EIGRP neighborship.

  Conditions: Occurs on OC-3 and OC-12 interface configured on port 0.

  Workaround: Issue a **shutdown/no shutdown** on interfaces configured on port 0. You can also remove and reconfigure EIGRP.

- CSCue43205

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

  Conditions: Occurs when you set an interface with QoS configurations to the default configuration. The issue occurs most often with the Ten Gigabit Ethernet interface using a full global configuration.

  Workaround: There is no workaround.

Resolved Caveats—Cisco IOS XE Release 3.8(1)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.8(1)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.

- 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.

- CSCtz03919

    Symptoms: The router fails to store trace logs.

    Conditions: Occurs when the /bootflash directory is full.

    Workaround: Clean up the /bootflash and then reboot the router.

- CSCtz20839

    Symptoms: IMA functionality does not work properly.

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

    Workaround: Reload the interface module with the IMA configuration.

- 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.

- CSCua95873

  Symptoms: The router continues passing traffic on the OC-3 interface after you shut down the controller.

  Conditions: Occurs when you shut down the OC-3 controller; the router momentarily continues to increment interface counters.

  Workaround: There is no workaround.

- CSCub73405

  Symptom: Cisco ASR903 router can experience latency for process-switched traffic and display high CPU utilization at nile_mgr.

  Conditions: Occurs on an ASR 903 with redundant RSPs after you reload the standby RSP.

  Workaround: Reboot the router.

- 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.

- CSCub79869

  Symptom: BGP PIC edge convergence time is high.

  Conditions: Occurs in a 3-label stack setup using LDP, BGP, and VPN labels.

  Workaround: There is no workaround for a stack using 3 labels. However, the issue does not occur when you use 2 labels.

- CSCub98691

  Symptom: The router displays an I2C write fail error message.

  Conditions: The issue can occur when the router is idle or when the router is loaded and passing traffic.

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

- CSCuc01154

  Symptom: The router does not report B1, B2, and B3 alarms at normal thresholds.

  Conditions: Occurs on the OC-3 interface module when the router sends errored frames.

  Workaround: There is no workaround.

- CSCuc41763

  Symptom: The router displays a RUNHOG traceback error message.

  Conditions: Occurs when you reload the router or an interface module.

  Workaround: There is no workaround.

- CSCuc51051

  Symptom: Remote LFA FRR convergence takes more than 50 milliseconds.

  Conditions: Occurs after you reload the router.

  Workaround: Reset the interface on the primary path.

- CSCuc58371

  Symptom: Some links do not become active on the OC-3 interface module.

  Conditions: Occurs on the OC-3 interface module (IM) configured at a high scale after you perform a multiple soft OIRs on the IM. The issue occurs frequently with SONET framing.

  Workaround: You can use the following workarounds:

  – Apply a **shutdown/no shutdown** to the OC-3 controller.

  – Re-apply the PDH configuration.

  – Add and remove a loopback configuration on the PDH.

  Add and remove a loopback configuration on the OC-3 controller.

- 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.

- CSCuc71723

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

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

  Workaround: There is no workaround.

- 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.

- CSCuc90008

  Symptom: The OC-3 controller stops passing traffic.

  Conditions: Occurs after you reset the facing interface on the CE device.

Workaround: Reset the interface module.

- 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.

- CSCuc92953

    Symptom: The RSP crashes.

    Conditions: Occurs under the following conditions:

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

    The router crashes.

    Workaround: There is no workaround.

- 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.

- CSCuc95716

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

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

    Workaround: Manually upgrade the OC-3 FPGA.

- 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.

- CSCud01641

Symptom: The standby RSP resets when you issue the write memory command on the active RSP.

Conditions: Occurs under the following conditions:

- The BITS interface is configured as an input clock source.
- Quality level-based clock selection is enabled.

Workaround: Disable QL-enabled mode for network-clock synchronization.

- 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.

- CSCud06744

Symptom: The router does not download MPLS global prefixes.

Conditions: Occurs under the following conditions:

- You configure Loop Free Alternate Fast Reroute (LFA FRR) at a high scale.
- The primary or backup paths flap multiple times.

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.

- CSCud07854

Symptom: FPGA software upgrade fails.

Conditions: Occurs when you upgrade the FPGA software using an IOS image bundled with a new FPGA version.

Workaround: Manually upgrade the FPGA software.

- CSCud08913

Symptom: The router crashes.

Conditions: The issue occurs in rare instances when you perform an interface module (IM) reset (OIR) on the OC-3 interface module.

Workaround: There is no workaround.

- CSCud09246

Symptom: The router crashes.

Conditions: Occurs under the following conditions:

- You issue the **clear ip route *** command

- You issue an interface module reset (IM OIR)

Workaround: There is no workaround.

- CSCud09315

  Symptom: The show ptp clock running domain 0 and show platform ptp all commands do not display a configured slave clock.

  Conditions: Occurs when you issue a **shutdown/no shutdown** on the link between a boundary clock and a master clock during while the boundary clock is in phase alignment.

  Workaround: Remove and restore the PTP configuration on the boundary clock.

- 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.

- CSCud15740

  Symptom: The Gigabit Ethernet interface module crashes.

  Conditions: Occurs when the router receives a flood of Wintegra interrupt packets.

  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 can cause 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).

- CSCud19563

   Symptom: The T1/E1 interface module on the standby RSP crashes repeatedly.

   Conditions: Occurs when the standby RSP is booting and there is a clock configured on the T1/E1 controller.

   Workaround: Remove the clock configuration prior to booting the standby RSP and restore the configuration afterwards.

- CSCud22601

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

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

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

- 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.

- 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.

- CSCud25813

   Symptom: The router drops IP Multicast traffic.

   Conditions: Occurs under the following conditions:

   - – You initiate multicast traffic to a single L3M group.
   - – You configure 50 EFPs with corresponding bridge domain interfaces (BDIs) and initiate IGMPv2 join traffic to a single multicast group.
   - – You add 25 EFPs with 25 bridge-domain interfaces (BDIs) at a 1:1 ratio.
   - – You remove 10 EFPs from the group of 50 and add the same EFPs to the group of 25.
   - – The newly added EFPs do not receive any traffic.

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

- CSCud26154

   Symptom: The router displays incorrect ENV readings.

   Conditions: Occurs when you switch off one power supply unit in a dual power supply configuration.

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

- CSCud26240

    Symptom: The router displays Nile mgrs leak error messages.

    Conditions: Occurs when you configure L3VPN and L2VPN services at a high scale.

    Workaround: There is no workaround.

- CSCud26382

    Symptom: The router drops traffic on an EFP interface after you perform a stateful switchover (SSO).

    Conditions: Occurs under the following conditions:

    – You boot the standby RSP

    – The router configuration contains an EFP interface on a Gigabit Ethernet port and a bridge domain interface in a down state.

    – After the router reaches an SSO state, you issue a no shutdown command on the peer router to bring the EFP interface up.

    – You perform an stateful switchover (SSO) on the router.

    Workaround: Issue a shutdown/no shutdown on the gigabit Ethernet port.

- CSCud28553

    Symptom: The router stops passing Switch Port Analyzer (SPAN) traffic.

    Conditions: Occurs after you apply a **shutdown/no shutdown** on the SPAN source port with Ethernet flow point (EFP) and bridge domain interface (BDI) configurations.

    Workaround: Enable and disable the SPAN session

- CSCud28685

    Symptom: Ping fails between the CE1 and CE2 devices when the ASR 903 is acting as the PE device.

    Conditions: Occurs when the SONET controller or ATM interface experiences an interface flap.

    Workaround: Perform a soft OIR on the interface module.

- CSCud28787

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

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

    Workaround: There is no workaround.

- CSCud31852

    Symptom: The router displays traffic polarization with L3VPN traffic.

    Conditions: Occurs under the following conditions:

    – The P router has multiple ECMP paths

    – The ECMP paths are port-channels

    Traffic is distributed between ECMP paths, but polarization occurs on the port-channel member links.

    Workaround: There is no workaround.

- CSCud33298

  Symptom: The router crashes.

  Conditions: Occurs when the peer device shuts down.

  Workaround: There is no workaround.

- CSCud33822

  Symptom: The router drops VPN traffic on an MPLS-TE tunnel using an explicit-null label advertisement after tunnel recovery.

  Conditions: The issue occurs under specific network conditions where TE is LDP-enabled and runs over a 10G link with dampening enabled. VPN prefixes are advertised from route-reflector as well as from the VPN PE over the TE tunnel. The TE tunnel is delayed and this causes label forwarding to switch from the 2 stack labeled path to the 3 stack labeled path with same VPN label coming from 2 sources.

  Workaround: Issue a **shutdown/no shutdown** on the tunnel or protect the tunnel from going down using fast reroute (FRR).

- CSCud36431

  Symptom: Backup path is not programmed properly for global prefixes and can cause the cut-over to have a higher convergence time.

  Conditions: Occurs when the router is running remote LFA FRR in a ring with 7 or more routers and one of the router in the ring reloads.

  Workaround: Issue a **shutdown/no shutdown** on the backup or primary interface.

- CSCud38115

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

  Conditions: Occurs during stateful switchover (SSO).

  Workaround: There is no workaround.

- CSCud38123

  Symptom: The router drops traffic and displays error messages similar to the following:
  %FMFP-3-OBJ_DWNLD_TO_CPP_FAILED: SIP1: fman_fp_image: LENTRY
  0xXXXXXXXXX (InLabel XX Table 0) download to CPP failed

  Conditions: Occurs when the primary path flaps more than 15 times while the router is configured with 8000 global prefixes

  Workaround: Reload the router.

- 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.
- CSCud38592

    Symptom: The router displays an fman_fp crash error and crashes.

    Conditions: Occurs when the router is running Remote LFA with a high number of prefixes and there is an interface flap on the primary path.

    Workaround: There is no workaround.

- CSCud38668

    Symptom: The OC-3 interface module crashes.

    Conditions: Occurs when you issue the **show platform software agent iomd 1/0 driver peek** command.

    Workaround: There is no workaround.

- 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.

- CSCud42315

    Symptom: The OC-3 interface module crashes.

    Conditions: Occurs when you apply the **forward-alarm ais** command on a T1 controller.

    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.

- CSCud44640

    Symptom: The router displays a traceback error when there one power supply unit slot is empty.

    Conditions: Occurs during boot.

    Workaround: There is no workaround.

- CSCud44768

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

Conditions: Occurs under the following conditions:

  – You configure more than 210 MLPPP bundles with one member link per bundle or 16 bundles with 16 member links each.

  – The line is operating at a 64 or 128 byte line rate

Workaround: There is no workaround.

- CSCud49684

  Symptom: The router displays an FMAN-FP memory leak error message.

  Conditions: Occurs when you configure L3VPN at a high scale.

  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.

- CSCud54092

  Symptom: The router displays an error message indicating a crash at tdl_netsync_clk_src_message_create.

  Conditions: The issue can occur when the router is shutting down during a reload

  Workaround: There is no workaround.

- CSCud55377

  Symptom: The router crashes.

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

  Workaround: There is no workaround.

- CSCud55695

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

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

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

- CSCud58793

  Symptom: The FPD version is blank

Conditions: Upgrade to the new firmware rev. and a subsequent switchover. Occurs when you upgrade the router to a new firmware version and issue an RSP switchover.

Workaround: Reloading the RSP can resolve the issue.

- CSCud60410

  Symptom: The router drops EFP traffic.

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

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

- 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.

- CSCud64347

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

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

  Workaround: None; remove the VLAN load balancing configuration.

- CSCud64923

  Symptom: OSPF connections flap.

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

  Workaround: There is no workaround.

- CSCud65779

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

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

  Workaround: There is no workaround.

- CSCud65935

  Symptom: End to end ATM ping does not work.

  Conditions: Occurs when you configure a different set of VPI/VCI on either end of an ATM layer 2 circuit.

  Workaround: Configure the same VPI/VCI values on both sides of the connection.

- 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.

- CSCud76679

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

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

  Workaround: There is no workaround.

- CSCud83069

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

  Conditions: Occurs when you enable ATM PVP Mode.

  Workaround: There is no workaround.

- CSCud83698

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

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

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

- CSCud91892

  Symptom: Remote LFA converges slowly and the router does not learn backup paths for global prefixes.

  Conditions: Occurs when you configure remote LFA with a high number of global prefixes.

  Workaround: There is no workaround.

- CSCue00332

  Symptom: BFD connections flap, bringing down IGP.

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

  Workaround: There is no workaround.

- CSCue03418

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

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

  Workaround: Increase the dead-interval value.

Open Caveats—Cisco IOS XE Release 3.8(0)S

This section documents the unexpected behavior that might be seen with the Cisco ASR 903 Router in Cisco IOS XE Release 3.8(0)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.

- CSCty70119

  Symptom: 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.

- CSCua39109

  Symptom: The router displays the following console error message:
  ```
  %FMFP_ACL-3-ACL_OBJECT_DOWNLOAD: SIP0: fman_fp_image: ACL create/modify for ACL test9
  fail to download because Cannot allocate memory.
  ```

  Conditions: Occurs when the router is running a configuration containing a high number of ACLs.

  Workaround: There is no workaround.

- CSCua55522

  Symptom: The router experiences intermittent flapping on REP segments.

  Conditions: Occurs under the following conditions:

  - An lsl-age-timer is configured
  - The configuration contains multiple REP segments
  - The router is experiencing high CPU utilization.

  Workaround: There is no workaround. However, the following can limit the issue:

  - Limiting the configuration to a single REP segment
  - Using an **lsl-age-timer** of greater than 500 milliseconds

- CSCua62029

  Symptom: The router crashes.

  Conditions: Occurs when you configure a service policy with two child policies with the same name.

  Workaround: Create a child service policy with a different name.

- CSCua73104

  Symptom: 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.

- CSCua77688

  Symptom: The router experiences remote CFM MEP flapping.

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

  Workaround: Reduce the rate of traffic.

- CSCua90879

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

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

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

- CSCub50477

  Symptom: The router does not pass Multicast traffic after a stateful switchover (SSO).

  Conditions: Occurs when you issue an SSO while the router is passing Multicast traffic on an inbound MLP interface.

  Workaround: There is no workaround.

- CSCub65096

  Symptom: The router crashes when running multicast traffic.

  Conditions: Occurs when the router is passing IGMP join messages at a rate of 6 packets per second over 240 serial interfaces.

  Workaround: Send IGMP joins at a lower rate.

- 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**.

- 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.

- CSCuc01154

  Symptom: The router does not report B1, B2, and B3 alarms at normal thresholds.

  Conditions: Occurs on the OC-3 interface module when the router sends errored frames.

  Workaround: There is no workaround.

- CSCuc02617

  Symptom: The router stops passing MPLS LDP traffic.

Conditions: Occurs on MPLS over POS interfaces when the router is sending traffic above the line rate.

Workaround: Send MPLS LDP traffic below the line rate.

• 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.

• CSCuc44701

Symptom: FP init fails on reload with TEFP QoS configs

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.

• CSCuc55739

Symptom: The console displays an error message similar to the following example:

`(Oct 8 10:46:53.126 IST: %FMFP-3-OBJ_DWNLD_TO_CPP_FAILED: SIP1: fman_fp_image: frr`
`0x200005ab download to CPP failed).`

Conditions: Occurs following a stateful switchover (SSO).

Workaround: There is no workaround.

• CSCuc57939

Symptom: The router stops passing traffic for more than 8 seconds.

Conditions: SSO Occurs when you initiate a stateful switchover (SSO) with a remote Loop Free Alternate Fast Reroute (LFA FRR) configuration.

Workaround: There is no workaround.

• CSCuc58371

Symptom: Some links do not become active on the OC-3 interface module.

Conditions: Occurs on the OC-3 interface module (IM) configured at a high scale after you perform a multiple soft OIRs on the IM. The issue occurs frequently with SONET framing.

Workaround: You can use the following workarounds:

– Apply a **shutdown/no shutdown** to the OC-3 controller.

– Re-apply the PDH configuration.

– Add and remove a loopback configuration on the PDH.

– Add and remove a loopback configuration on the OC-3 controller.

• CSCuc62049

Symptom: OSPF/BFD interfaces flap when you apply a test access list.

Conditions: Occurs when you configure an IP ACL on an EVC interface.

Workaround: Remove the configuration.

- CSCuc66393

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

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

  Workaround: There is no workaround.

- CSCuc68699

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

  Conditions: Occurs when you perform the following actions:

  – Remove QoS policies from an EFP interface

  – Remove policy-maps and class-maps associated with the QoS policy.

  Workaround: There is no workaround.

- CSCuc80957

  Symptom: The router crashes.

  Conditions: Occurs when you rest the 10 gigabit Ethernet interface module (IM) on a non-redundant system using the **hw-module subslot reload** command.

  Workaround: Administratively shut down the IM before resetting the IM.

- CSCuc81334

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

  Conditions: Occurs after a stateful switchover (SSO).

  Workaround: Remove and restore the clock source configuration.

- CSCuc83088

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

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

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

- CSCuc87791

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

  Conditions: Occurs under the following conditions:

  – A clock source fails, triggering the wait-to-restore timer (which specifies how long the before including a restored clock source in the clock selection process.

  – The clock source becomes active and fails a second time before the wait-to-restore time has passed.

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

- CSCuc90006

  Symptom: When you shut down a link within an Multiservice Transport Platform (MSTP) instance, interfaces in other MSTP instances are blocked.

  Conditions: Occurs when the interface in the MSTP instance is the root port.

  Workaround: There is no workaround.

- 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.

- CSCuc93895

  Symptom: The router has an Automatic Protection Switching (APS) switchover time of more than 1 second.

  Conditions: Occurs on MLPPP interfaces configured at a high scale when the router is running with ICRM in SONET mode.

  Workaround: There is no workaround.

- CSCuc93985

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

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

  Workaround: There is no workaround.

- CSCuc95716

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

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

  Workaround: Manually upgrade the OC-3 FPGA.

- 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.

- CSCud01908

  Symptom: The **show platform software object-manager fp active statistics** command shows 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: There is no workaround.

- CSCud04407

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

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

  Workaround: There is no workaround.

- CSCud04529

  Symptom: The router shows traffic loss.

Conditions: Occurs when the primary path is recovered via remote Loop Free Alternate Fast Reroute (LFA FRR).

Workaround: There is no workaround.

- CSCud06744

   Symptom: The router does not download MPLS global prefixes.

   Conditions: Occurs under the following conditions:

   – You configure Loop Free Alternate Fast Reroute (LFA FRR) at a high scale.

   – The primary or backup paths flap multiple times.

   Workaround: There is no workaround.

- CSCud06772

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

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

   Workaround: Configure software BFD sessions.

- 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.

- 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.

- CSCud13242

   Symptom: The ASR 903 does not display an alarm when nV satellite authentication fails.

   Conditions: Occurs when the ASR 9000 and ASR 903 are in an nV satellite configuration and the routers are configured with a different serial-number value.

   Workaround: There is no workaround.

- 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.

- CSCud15785

   Symptom: The router experiences flaps in REP traffic.

   Conditions: Occurs when the MAC limit feature is configured at a high scale.

   Workaround: Disable the MAC limiting feature.

- CSCud24648

Symptom: The router standby RSP displays an ether_efp_cfg_message_unmarshal_ error message and crashes.

Conditions: Occurs under the following conditions:

- The router has an 8 port Gigabit Ethernet interface module (IM)
- The IM is configured with a service instance
- The service instance has an xconnect and bridge domain interface (BDI) configuration
- You perform an soft OIR (reset) on the IM while the standby RSP is booting

Workaround: Wait for the standby RSP to boot before resetting the IM.

- CSCud26382

Symptom: The router drops traffic on an EFP interface after you perform a stateful switchover (SSO).

Conditions: Occurs under the following conditions:

- You boot the standby RSP
- The router configuration contains an EFP interface on a Gigabit Ethernet port and a bridge domain interface in a down state.
- After the router reaches an SSO state, you issue a no shutdown command on the peer router to bring the EFP interface up.
- You perform an stateful switchover (SSO) on the router.

Workaround: Issue a shutdown/no shutdown on the gigabit Ethernet port.

- CSCud26997

Symptom: The IOMD process can crash on the T1/E1 interface module.

Conditions: Occurs during RSP switchover with a configuration containing CEM, ATM, IMA layer 2 attachment circuits, and pseudowires.

Workaround: There is no workaround.

- CSCud28553

Symptom: The router stops passing Switch Port Analyzer (SPAN) traffic.

Conditions: Occurs after you apply a **shutdown/no shutdown** on the SPAN source port with Ethernet flow point (EFP) and bridge domain interface (BDI) configurations.

Workaround: Enable and disable the SPAN session

- CSCud28685

Symptom: Ping fails between the CE1 and CE2 devices when the ASR 903 is acting as the PE device.

Conditions: Occurs when the SONET controller or ATM interface experiences an interface flap.

Workaround: Perform a soft OIR on the interface module.

Resolved Caveats—Cisco IOS XE Release 3.8(0)S

This section documents the issues that have been resolved in Cisco IOS XE Release 3.8(0)S.

- CSCty41692

    Symptoms: Standby PRE crashes when you add an IPV4 VRF AF on the active PRE. The issue does not occur on the active PRE.

    Conditions: Occurs when you remove and re-apply a configuration when BGP is in read-only mode.

    Workaround: Once BGP exits read-only mode, this issue will not happen.

- CSCty85926

    Symptoms: The VC (VPLS/EoMPLS) stays down and displays the following message in the **show mpls l2 vc detail** command: `Signaling protocol: LDP, peer unknown`

    Conditions: Occurs if you configure LDP GR; do a SSO switchover and configure the VC after the switchover is complete.

    Workaround: There is no workaround; reload the switch.

- CSCtz96504

    Symptoms: Backup VCs remain down after SSO.

    Conditions: Occurs at high scale, such as when you create 500 primary and 500 backup VCs.

    Workaround: You can use the **clear xconnect peerid** *peerid of the PW* **vcid** *vcid* command to bring the backup VCs to an SB state; however, this is not usually recommended.

- CSCtz98347

    Symptoms: When IS-IS is configured to run level-2, IS-IS LFA does not create repair path if the total metric to a prefix is 1024.

    Conditions: Seen with 15.2(2)S and when the IS-IS metric is more than 1024 and configured with level-2.

    Workaround: Ensure the total metric to a prefix is less than 1024, or use narrow metric setting

- CSCua27852

    Symptoms: Traffic loss is seen in pure BGP NSR peering environment.

    Conditions: The symptom is seen on a Cisco router that is running Cisco IOS Release 15.2(2)S, and the BGP peerings to CEs and RR are all NSR-enabled.

    Workaround: Enable the **bgp graceful-restart** command for RR peering.

- CSCua61330

    Symptoms: Traffic loss is observed during switchover if BGP graceful restart is enabled or the next hop is learned by BGP.

    Conditions: This symptom occurs on a Cisco router running Cisco IOS XE Release 3.5S.

    Workaround: There is no workaround.

- CSCua66870

    Symptoms: When changing RPF neighbor (S,G) in PIM-dense mode, OIF on (*,G) is pruned unexpectedly.

    Conditions: Occurs when you use PIM-dense mode.

    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.

- CSCud04161

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

  Conditions: Occurs under any of the following conditions:

  – You dynamically add a member link to a port-channel.

  – You issue a shutdown/no shutdown on a member link of a port-channel.

  Workaround: Wait for PTP to synchronize before configuring DMM scheduling.