Release Notes for Cisco ASR 901 Series Aggregation Services Router for Cisco IOS Release 15.4(3)S

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This release notes is for the Cisco ASR 901 Series Aggregation Services Router for Cisco IOS Release 15.4(3)S and contains the following sections:

Introduction

The Cisco ASR 901 Series Aggregation Services Router is a cell-site access platform specifically designed to aggregate and transport mixed-generation radio access network (RAN) traffic. The router is used at the cell site edge as a part of a 2G, 3G, or 4G RAN.

The Cisco ASR 901 router helps enable a variety of RAN solutions by extending IP connectivity to devices using Global System for Mobile Communications (GSM), General Packet Radio Service (GPRS), Node Bs using High Speed Packet Access (HSPA) or Long Term Evolution (LTE), base transceiver stations (BTSs) using Enhanced Data Rates for GSM Evolution (EDGE), Code Division Multiple Access (CDMA), CDMA-2000, EVDO, or WiMAX, and other cell-site equipment.

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It transparently and efficiently transports cell-site voice, data, and signaling traffic over IP using traditional T1 and E1 circuits, as well as alternative backhaul networks such as Carrier Ethernet and DSL, Ethernet in the First Mile (EFM), and WiMAX. It also supports standards-based Internet Engineering Task Force (IETF) Internet protocols over the RAN transport network, including those standardized at the Third-Generation Partnership Project (3GPP) for IP RAN transport. Custom designed for the cell site, the Cisco ASR 901 router features a small form factor, extended operating temperature, and cell-site DC input voltages.

Table 1 lists the Cisco ASR 901 1G Router model versions.

Table 1   Cisco ASR 901 1G Router Models

Power Source	TDM + Ethernet Version	Ethernet Version
DC Power	• A901-12C-FT-D • A901-4C-FT-D	• A901-12C-F-D • A901-4C-F-D
AC Power	• none	• none

Table 2 lists the Cisco ASR 901 10G Router model versions.

Table 2   Cisco ASR 901 10G Router Models

Power Source	TDM + Ethernet Version	Ethernet Version
DC Power	• A901-6CZ-FT-D	• A901-6CZ-F-D • A901-6CZ-FS-D
AC Power	• A901-6CZ-FT-A	• A901-6CZ-F-A • A901-6CZ-FS-A

Note   Some of the Cisco ASR 901 models have port based licensing. For more details, see the Licensing chapter in Cisco ASR 901 Series Aggregation Services Router Software Configuration Guide.

System Specifications and Memory Details

Table 3 lists the supported system configurations and memory details for the Cisco ASR 901 router:

Table 3   Cisco IOS Release 15.4(3)S Memory Details

Platform	Software Image	Flash Memory	DRAM Memory	Runs From
Cisco ASR 901 Series Aggregation Services Router TDM version	asr901-universalk9-mz	128 MB	512 MB	RAM

Table 3   Cisco IOS Release 15.4(3)S Memory Details

Platform	Software Image	Flash Memory	DRAM Memory	Runs From
Cisco ASR 901 Series Aggregation Services Router, Ethernet version	asr901-universalk9-mz	128 MB	512 MB	RAM
Cisco ASR 901 Series Aggregation Services Router, IPsec enabled Ethernet version	asr901sec-universalk9.mz	256 MB	512 MB	RAM

Determining the Software Version

To determine the image and version of Cisco IOS software running on your Cisco ASR 901 router, log in to the router and enter the **show version** command in the EXEC mode:

The following example shows output from Cisco ASR 901 router that supports normal IOS software.

```
Router> show version

Cisco IOS Software, 901 Software (ASR901-UNIVERSALK9-M), Version 15.4(3)S, RELEASE
SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2014 by Cisco Systems, Inc.
Compiled Sat 19-Jul-14 19:23 by prod_rel_team

ROM: System Bootstrap, Version 15.4(3r)S3, RELEASE SOFTWARE (fc1)
```

The following example shows output from Cisco ASR 901 Series Aggregation Services Router, IPsec enabled Ethernet version.

```
Router> show version

Cisco IOS Software, 901 Software (ASR901SEC-UNIVERSALK9-M), Version 15.4(3)S, RELEASE
SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2014 by Cisco Systems, Inc.
Compiled Sat 19-Jul-14 19:13 by prod_rel_team

ROM: System Bootstrap, Version 15.4(3r)S3, RELEASE SOFTWARE (fc1)
```

New and Changed Information

New Hardware Features in Release 15.4(3)S

There are no new hardware features in this release.

New Software Features in Release 15.4(3)S

The following features are supported from this release.

1588 PTP Best Master Clock Algorithm

1588 PTP Best Master Clock Algorithm (BMCA) is used to select the master clock on each link, and ultimately, select the grandmaster clock for the entire PTP domain. BCMA runs locally on each port of the ordinary and boundary clocks, and selects the best clock on the link by comparing the local data sets with the received data from the announce messages.

For more information about this feature, see *Configuring Clocking* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_010110.html

BFD Support for Multicast (PIM)

The Bidirectional Forwarding Detection (BFD) Support for Multicast (PIM) feature, also known as PIM BFD, registers PIM as a client of BFD.

PIM can then utilize BFD to initiate a session with an adjacent PIM node to support BFD's fast adjacency failure detection in the protocol layer.

For information on BFD PIM implementation on IPv4, see *IPv4 Multicast* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101010.html

For information on BFD PIM implementation on IPv6, see the *IPv6 Multicast* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101011.html

CFM CCM Hardware Offload

Effective from Cisco IOS Release 15.4(3)S, the Cisco ASR 901 Router supports CFM hardware offloading. Configuring Ethernet CFM for offload CFM session requires configuring the CFM domain with the supported offload CCM intervals 3.3ms,10ms, and 100ms. You can optionally configure the sampling rate for the offload cfm sessions and the default sampling rate is 20000.

For more information about this feature, see *Configuring Ethernet OAM* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_01010.html

DHCP Snooping with Option-82 on EVC

DHCP Snooping is one of the switch features on the Cisco ASR 901 Series Routers that will be supported while functioning as a Layer 2 switch.

For more information about this feature, see the *Configuring Ethernet Virtual Connections* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_01000.html

G.8032 and Psuedo Preemption Support

Effective from Cisco IOS Release 15.4(3)S, the Cisco ASR 901 Router supports G.8032 on port-channel interface.

For more information about this feature, see *ITU-T G.8032 Ethernet Ring Protection Switching* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101111.html

IP Multicast VRF Lite

The IP Multicast VRF Lite feature provides IPv4 multicast support for multiple virtual routing/forwarding contexts (VRFs). The IPv4 Multicast VRF Lite feature simplifies the management and troubleshooting of traffic belonging to a specific VRF.

For more information about this feature, see *IPv4 Multicast* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101010.html

IPv6 Multicast VRF Lite

The IPv6 Multicast VRF Lite feature provides IPv6 multicast support for multiple virtual routing/forwarding contexts (VRFs). The IPv6 Multicast VRF Lite feature simplifies the management and troubleshooting of traffic belonging to a specific VRF.

For more information about this feature, see the *IPv6 Multicast* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_0101011.html

PTP Loopback Interface VRF Awareness

PTP support over virtual routing and forwarding (VRF) instance-enabled interfaces allows the PTP loopback interface to be part of VRF rather than maintaining the loopback addresses in the global routing table. This enables the service providers to reuse the same IP address for multiple loopback interfaces by configuring PTP loopback under VRF.

For more information about this feature, see *Configuring Clocking* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_010110.html

PTP over Ethernet

Effective from Cisco IOS Release 15.4(3)S, the Cisco ASR 901 Router supports PTP over Ethernet.

For more information about this feature, see *Configuring Clocking* feature guide at the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_010110.html

Support for Unframed E1

Effective with Cisco IOS Release 15.4(3)S, support was introduced for unframed E1, enabling the use of timeslot 0 for data to utilize the full capacity (2.048Mbps) of E1 controllers, against the previous maximum bandwidth limit of 1.984Mbps.

For more information about this feature, see the following URL:
http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Configuration/Guide/b_asr901-scg/b_asr901-scg_chapter_010100.html

Modified Software Features in Release 15.4(3)S

There are no modified features in this release.

Supported Hardware

Table 4 and Table 5 shows the SFP modules supported on the Cisco ASR 901 routers:

Note

- 10G SFPs inserted into 1GE port provides 1GE speed.
- 10G SFPs inserted into 10GE port without a valid license provides only 1GE speed.
- 100M SFP works only with **no negotiation auto** command.
- If 1G SFP is used to connect a 10G port to a 1G port, you do not have to explicitly configure the **no negotiation auto** command to bring up the link.
- Effective with Cisco IOS Release 15.4(3)S, the auto-select feature is supported on 100M SFPs. However, this feature is not supported on combo ports.

Table 4   SFPs Supported on the Cisco ASR 901 1G and 10G Routers for 1G Mode

• CWDM-SFP-1470	• GLC-SX-MM-RGD
• CWDM-SFP-1490	• GLC-T
• CWDM-SFP-1510	• GLC-ZX-SM
• CWDM-SFP-1530	• GLC-ZX-SMD
• CWDM-SFP-1550	• GLC-ZX-SM-RGD
• CWDM-SFP-1570	• SFP-GE-L
• CWDM-SFP-1590	• SFP-GE-S
• CWDM-SFP-1610	• SFP-GE-T
• DWDM-SFP-XXXX[1]	• SFP-GE-Z
• GLC-BX-U and GLC-BX-D[2]	• GLC-BX40-D-I
• GLC-EX-SMD	• GLC-BX40-DA-I
• GLC-LH-SMD	• GLC-BX40-U-I
• GLC-LX-SM-RGD	• GLC-BX80-D-I
• GLC-SX-MMD	• GLC-BX80-U-I

1. 40 wavelengths
2. These SFPs (GLC-BX-U and GLC-BX-D) should be connected back to back to bring the interface link up.

Table 5   SFPs Supported on the Cisco ASR 901 10G Router for 10G Mode

• SFP-10G-ER	• SFP-10G-SR
• SFP-10G-LR	• SFP-10G-SR-X
• SFP-10G-LR-X	• SFP-10G-ZR
• DWDM-SFP+	• SFP-10G-LRM
• SFP-H10GB-CU1M	• SFP-H10GB-ACU7M
• SFP-H10GB-CU3M	• SFP-H10GB-ACU10M
• SFP-H10GB-CU5M	

Note   For information on how to configure SFPs, see the Cisco ASR 901 Series Aggregation Services Router Software Configuration Guide.

Supported MIBs

The Cisco ASR 901 router supports the following MIBs:

- BGP4-MIB
- BRIDGE-MIB
- CISCO-ACCESSENVMON-MIB
- CISCO-CAR-MIB
- CISCO-CDP-MIB
- CISCO-CEF-MIB
- CISCO-CLASS-BASED-QOS-MIB
- CISCO-CONFIG-COPY-MIB
- CISCO-CONFIG-MAN-MIB
- CISCO-DATA-COLLECTION-MIB
- CISCO-DOT3-OAM-MIB
- CISCO-EIGRP-MIB
- CISCO-ENHANCED-MEMPOOL-MIB
- CISCO-ENTITY-ASSET-MIB
- CISCO-ENTITY-VENDORTYPE-OID-MIB
- CISCO-ENVMON-MIB
- CISCO-FLASH-MIB
- CISCO-IETF-PW-MIB
- CISCO-IETF-PW-TC-MIB
- CISCO-IF-EXTENSION-MIB
- CISCO-IMAGE-MIB
- CISCO-IPSLA-ETHERNETMIB
- CISCO-MEMORY-POOL-MIB
- CISCO-NETSYNC-MIB

- CISCO-STP-EXTENSIONS-MIB
- CISCO-SYSLOG-MIB
- CISCO-TC
- ENTITY-MIB
- ETHERLIKE-MIB
- HCNUM-TC
- IANAifType-MIB
- IEEE8021-CFM-MIB
- IF-MIB
- IMA-MIB
- INT-SERVE-MIB
- IP-FORWARD-MIB
- IP-MIB
- MPLS-LDP-MIB
- MPLS-LSR-MIB
- MPLS-VPN-MIB
- NOTIFICATION-LOG-MIB
- OLD-CISCO-CHASSIS-MIB
- OLD-CISCO-FLASH-MIB
- OLD-CISCO-INTERFACES-MIB
- OLD-CISCO-IP-MIB
- OLD-CISCO-SYS-MIB
- OLD-CISCO-TS-MIB
- OSPF-MIB

- CISCO-NTP-MIB
- CISCO-OSPF-MIB
- CISCO-PING-MIB
- CISCO-PROCESS-MIB
- CISCO-PRODUCTS-MIB
- CISCO-PTP-MIB
- CISCO-QUEUE-MIB
- CISCO-RESILIENT-ETHERNET-PROTOCOL -MIB
- CISCO-RTTMON-MIB
- CISCO-SENSOR-ENTITY-MIB
- CISCO-SMI-MIB
- CISCO-SNAPSHOT-MIB
- CISCO-SNMP-TARGET-EXT-MIB

- OSPFv3-MIB
- PerfHist-TC-MIB
- RFC1213-MIB
- RMON2-MIB
- RMON-MIB
- SNMP-FRAMEWORKMIB
- SNMP-TARGET-MIB
- SNMPv2-MIB
- SNMPv2-SMI
- SNMPV2-TC
- TCP-MIB
- UDP-MIB
- CISCO-IPSEC-FLOW-MONITOR-MIB
- CISCO-IPSEC-MIB

Caveats

Caveats describe unexpected behavior in Cisco IOS software releases. Severity 1 caveats are the most serious caveats, severity 2 caveats are less serious, and severity 3 caveats are the least serious of these three severity levels. Only select severity 3 caveats are listed.

This section contains the following topics:

- Bug Search Tool
- Open Caveats
- Resolved Caveats

Bug Search Tool

The Caveats section only includes the bug ID and a short description of the bug. For details on the symptoms, conditions, and workaround for a particular bug you must use the Bug Search Tool.

Use the following link to access the tool: https://tools.cisco.com/bugsearch/search

You will be prompted to log into Cisco.com. After successful login, the Bug Search Tool page opens. Use the Help link in the Bug Search Tool to obtain detailed help.

Open Caveats

This section provides information about the open caveats for the Cisco ASR 901 router running Cisco IOS Release 15.4(3)S.

Bug ID	Description
CSCsd58192	Multicast MAC entry is formed on a Layer 2 VLAN without a querier.
CSCtn71094	The **no interface vlan 1** command deletes VLAN 1.
CSCtn79746	The **show ethernet service instance statistics** command is not displaying any statistics.
CSCtr05566	The Multiprotocol Label Switching (MPLS) traffic fails when port channel encapsulation is not equal to the bridge domain on the core.
CSCtr70228	High CPU utilization is observed while performing save or copy operation.
CSCts66081	Ingress VLAN translation failure occurs when entries exceed 3000.
CSCts80090	The reserved VLANs are not blocked on the router.
CSCts84679	The circuit emulation (CEM) interface displays wrong configuration in the **show running-configuration** command output, when pw-class is configured.
CSCts85484	Traceback occurs after executing **rep preempt segment segid** command.
CSCtw52497	The interface drops all ingress packets when you reload the router with write, erase, and copy the saved configuration to the running configuration.
CSCtw69021	Maximum bandwidth guarantee for Multilink Point-to-Point Protocol (MLPPP) interface is not working for 64-byte size frames in Low Latency Queuing (LLQ).
CSCtx12366	The servo is accepting more than 64PPS Sync in static unicast.
CSCtx22010	SyncE is not supported for the Copper SFPs: GLC-T and SFP-GE-T
CSCtx54735	High CPU utilization and traceback is observed while doing copy and paste of 16 E1 controllers unconfigurations.
CSCtx77374	Input errors are increasing when serial interface flaps. This issue is observed on a serial interface that is part of a multilink interface, when keepalive is disabled.
CSCty95886	The file copy function is not detecting errors properly.
CSCtz38207	Router is rebooting continuously due to failed fans.
CSCtz48755	The write operation triggers the flaps for Hot Standby Router Protocol (HSRP). We recommend the use of minimum 1 sec (or above) hello timer for HSRP and Virtual Redundancy Router Protocol (VRRP). With this configuration, we support a maximum of 50 sessions.
CSCtz69403	IPv6 traffic is not getting dropped with link-local as source address.
CSCua19178	Packet drops are seen with IPv6 fragmentation.
CSCua34320	The OSPFv3 keeps old router-id even after changing the loopback address.

Bug ID	Description
CSCua34389	Manual tunnel having MPLS configuration with dynamic option in the following sequence does not set up targeted ldp session resulting in tunnel staying down. shut/no shut of the tunnel brings back the targeted Label Distribution Protocol (LDP) session up. ``` interface Tunnel108 ip unnumbered Loopback0 mpls label protocol ldp mpls ip tunnel source Loopback0 tunnel destination 36.36.36.36 tunnel mode mpls traffic-eng tunnel mpls traffic-eng path-option 1 dynamic ``` The issue is not observed when tunnel mode is configured ahead of tunnel destination.
CSCua40707	The commands related to MPLS and MPLS-TE/FRR are applicable only to SVI interfaces though they can be enabled globally. Configuring MPLS commands on GigabitEthernet interface or port-channel is not supported.
CSCua49491	The MPLS traffic engineering counters are not supported.
CSCua51628	The OSPFv3 bidirectional forwarding detection (BFD) flaps after an interface is shut in a port-channel bundle.
CSCua81678	The following error message is displayed for /128 prefix: "Reached Maximum Number of IPv6 Hosts".
CSCua84571	Load balancing is not working with different streams having symmetrical addresses.
CSCua88693	The **verify** command is not supported for the USB flash in the Cisco ASR 901 10G router.
CSCua98165	The IPv6 BFD packets should be mapped to Queue 6 on egress interface.
CSCua99910	MAC address table (MAC learning) failures can be seen with more than 31000 MAC Addresses in certain conditions. So it is safe to assume the platform supports 31000 MAC addresses.
CSCub12715	The "pura_cef_ipv6_route_create_update:Reached Maximum Number of Prefixes supported by platform.Additional Prefixes will not be programmed" message is displayed when the primary path is shut/unshut in a redundant convergent setup.
CSCub71746	Alarm Indication Signal (AIS) is visible momentarily at T1 controller of CE1 while reverting back to primary.
CSCuc15639	Connectivity Fault Management (CFM) is not supported with 100 ms interval.
CSCuc22630	The router fails to recognize USB when its removed immediately after insertion.
CSCuc25878	The UBR transmits at a lower rate when all five class of service (CoS) Private Virtual Circuits (PVCs) are configured.
CSCuc39560	IPv6 traffic drop occurs globally when IPv4 VRF is configured on the same SVI with **ip vrf definition**.

Bug ID	Description
CSCuc85033	The untagged Ethernet Virtual Circuit (EVC) port is not supported for spanning tree.
CSCuc95900	Traffic is receiving two VLAN tags, instead of three for QinQ with pop 2.
CSCud05125	In traffic generator, the receiver (Rx) counter is incrementing even after the EVC mismatch.
CSCud14278	Border Gateway Protocol (BGP) flap is observed between PEs when traffic from CE side is oversubscribed towards PE.
CSCud16558	High convergence time is observed when "shut" operation is performed on fast re-route (FRR) configured with port channels. This issue can be resolved with BFD.
CSCud20997	The Ethernet Over MPLS (EoMPLS) pseudowire redundancy fails when backup pseudowire is active in TE-FRR backup path.
CSCud24655	CPU hog is observed when primary path is "shut" in an LFA FRR set up with 1000 prefixes.
CSCud29184	The **show version** command is not giving the image name when the boot system variable is set as: **boot system flash** *image-name*.
CSCud32961	Error occurs when any label entry is crossing the 3500 range.
CSCud37655	The xconnect MTU is not used for traffic filtering.
CSCud71334	The mac-address flap control is putting all ports into "err-disabled" state, in some cases.
CSCud75293	The **show rom-monitor** command is not showing upgraded ROMMON version in IOS mode.
CSCud79202	The **show inventory** command is displaying the PID of SFP-SX-MM as GLC-SX-MM.
CSCud89083	The router displays "soc_counter_sync: counter thread not responding" error, under heavy CPU usage.
CSCue11688	The VRF routes are leaked from the adjacent VRF with a particular IP:nn pattern.
CSCue45003	ASR901 strom control filter does not support current counters value in **show storm** output.
CSCue54634	Traffic outage and pstorm errors are observed when port channel is configured and unconfigured multiple times.
CSCuf21682	High reconvergence is observed for global traffic in Remote Loop Free Alternate (RLFA).
CSCuf48503	Higher latency is observed for middle priority queue.
CSCuf49860	Configuration of backup peer on primary xconnect, after bringing up remote peer backup results in flap.
CSCuf51918	Router fails to boot and reloads occasionally.
CSCug61006	Auto-select is not working on the Gigabit Ethernet (0/4) port. For combo ports, shutdown or no shutdown on the interface is mandatory while changing the media type from RJ45 to auto-select and auto-select to RJ45 respectively.

Bug ID	Description
CSCug91477	Strom control filter for the port channel does not show the discarded counters.
CSCug92777	On Layer 3, multicast traffic are punted to CPU even when storm control drops all the packets.
CSCuh54827	Layer 2 control protocol forwarding and tunneling is not following the Spanning Tree Group (STG) states updated by Resilient Ethernet Protocol (REP)/Multiple Spanning Tree Protocol (MSTP).
CSCuh69916	The ASR 901 router does not support Multicast Route entry based counters.
CSCuh81074	The output of **show ip mroute active** and **show ip mfib active** commands are showing incorrect traffic rate.
CSCuh84139	The ASR 901 router is experiencing very high Fast Reroute (FRR) cutover downtime when port-channel core-facing interface is down.
CSCui28984	If the accept interface and forward interface are in the same BD, multicast traffic is not forwarded.
CSCui35642	Multicast traffic is getting forwarded based on physical interface MTU instead of SVI MTU.
CSCui59984	REP flap is observed on scale configurations (bridge-domain scaled up to 250 or MAC address learnt is about 10K) with low link status layer (LSL) timers.
CSCui85659	Layer 2 control packets (Tx) cannot be spanned.
CSCui88126	"ReachedMaximumNumberIPv6 Hosts" error message and traceback is observed on core link flap. The ASR901 router allows lesser than MAX Multicast Routes due to HASH COLLISION LIMITATION in certain Source and Group Combination.
CSCuj33687	Node failure in open ring results in high convergence time for REP.
CSCuj49502	Multiprotocol Label Switching (MPLS) EXP classification is not working in P router for plain IP, L2VPN and L3VPN traffic flowing from one Ingress MLPPP to another Egress MLPPP/Egress GigabitEthernet.
CSCuj65823	Router console session or telnet session hangs after deleting IMA group.
CSCuj86953	Static NAT entries are not created in the translation table unless there is traffic for that translation.
CSCuj90830	BFD flap is observed in LHR while sending traffic for same group from 100 different sources.
CSCuj97560	The EntityMIB is showing wrong entry for entPhysicalContainedIn for T1/E1 ports.
CSCuj99184	Router fails to trigger Protocol-Independent Multicast (PIM) assert resulting in duplicate traffic for 2 to 3 minutes.
CSCuj99184	Router receives duplicate traffic as it fails to trigger PIM assert.
CSCul04332	Unknown IP multicast packet flooding is observed when snooping is enabled.
CSCul06056	All config-reg values are accepting "break".

Bug ID	Description
CSCul12225	On a 10G router, when 10G interface is used in 1G mode, traffic switching from one member of port-channel to another takes more time.
CSCul14767	Process thrashing on IP multicast table shows 300 groups.
CSCul22030	Duplicate traffic is received for sometime on the receiver which is directly connected on RP after RPF shut/no-shut operation.
CSCul30014	Traceback is observed while removing *ppp multilink group* from serial interfaces which are bundled in BCP over MLPPP.
CSCul41152	Layer 3 traffic drop is observed after REP preemption, in REP setup with VLAN load balancing (VLB).
CSCul58461	IGMPv3 Snooping Explicit Host Tracking (EHT) is not working.
CSCul60965	Internet Security Association and Key Management Protocol (ISAKMP) profile is not working with inside global address from outside.
CSCul67908	Internet Group Management Protocol (IGMP) snooping cannot be enabled on specific BDs.
CSCul71854	Traceback is observed at REP LSL Hello PP Process while trying to replace the configuration with G8032 configuration saved in the flash memory.
CSCum04946	For Internet Key Exchange Version 2 (IKEv2), though the tunnel is coming up, the traffic fails to pass through the IPsec tunnel.
CSCum09333	Multicast traffic is looped by Protocol Independent Multicast (PIM) rendezvous point (RP) if traffic is received on a different VLAN.
CSCum09471	Traffic drop is observed on other receiver in the scale scenario. When leave is sent from the host connected on DR side, drop occurs on receiver connected on querier.
CSCum20414	High convergence numbers are observed for multicast traffic when Remote Loop-free Alternate (RLFA) - Fast Reroute (FRR) is configured.
CSCum23734	G8032 is not notified for Connectivity Fault Management (CFM) error when static remote MEP (RMEP) is configured.
CSCum40529	Traffic is not flooded to other interface when IGMP report is stopped on one interface.
CSCum43027	For IGMP and MLD snooping, the PIM neighbourship flaps when Resilient Ethernet Protocol (REP) is configured and *pim query-interval* is set to a value of 1.
CSCum48108	Convergence is taking more time with LFA-FRR on local shut of BFD enabled path.
CSCum53244	High CPU usage is observed after configuring multiple segments on the same router with REP Edge No-Neighbor configuration.
CSCum53280	IPsec traffic is not getting encrypted, if Authentication Header (AH) Hashed Message Authentication Codes (HMAC) is used with Encapsulating Security Payload (ESP) encryption algorithm.
CSCum54897	Reduced throughput is observed for non-TCP/UDP IPsec traffic.
CSCum59363	Ethernet ring flap is observed when the topology has 3 to 4 rings.

Bug ID	Description
CSCum94581	Delay Measurement Message (DMM) is not working when CFM hardware offload is configured.
CSCum95421	IGMP snooping or MLD snooping entries are not getting updated correctly, when there is a topology change with REP, G8032, or MSTP.
CSCun02393	CPU spike is observed for 10 to 20 seconds when IGMP snooping or MLD snooping is configured with REP or G8032 or MSTP.
CSCun13361	Traffic is not flowing to the IGMP hosts.
CSCun13467	BFD flap is observed after enabling and disabling IP IGMP Snooping on DR.
CSCun14606	After configuring the **no ipv6 mld snooping vlan** *num* **listener-message-suppression** command, the running configuration shows **no ipv6 mld snooping vlan** *num* **report-suppression**. After reboot, the configuration is not accepted and the configuration is lost.
CSCun17425	IPsec tunnel flap is observed when rekey and Dead Peer Detection (DPD) is enabled.
CSCun20685	The ERP state machine flaps during topology reconvergence.
CSCun25855	IPsec counters are doubling when rekeying and DPD are enabled on the IPsec version of the router.
CSCun27273	MPLS Label Distribution Protocol (LDP) bindings are being created for virtual console IP.
CSCun30789	Router crashes after adding new class with match on QoS group.
CSCun33689	IPsec tunnel ping fails, with repeated removal and addition of tunnel protection from the tunnel interface.
CSCun35809	Traceback is observed after executing **show rep topology** command when REP is configured.
CSCun42436	IP SLA with Ethernet loopback fails in service performance on both sender and responder.
CSCun44319	If more than 100 IGMP joins or leaves occur in a single burst, some entries might get dropped. It works fine up to a maximum of 100 joins or leaves in a single burst.
CSCun51336	Open Shortest Path First (OSPF) remains active even after configuring Access Control List (ACL) deny any on the interface.
CSCun52296	Validblock_diagnose crash with code 2 and 8 on Soak with triggers.
CSCun52716	Egress policy counters are not working after applying on the port-channel interface.
CSCun58346	The **clear ip nat translation** command is not clearing translation entries.
CSCun64957	Group replication fails on the LHR (RP also) after reloading the transit router.
CSCun70313	Micro-loop is observed with Multiple Spanning Tree Protocol (MSTP), when the port channel is in no shut mode.
CSCun73821	Traffic drop is observed on G8032 without Connectivity Fault Management (CFM).

Bug ID	Description
CSCun81002	The ACL slices are showing double wide in the Cisco ASR 901 10G IPsec/NAT router.
CSCun86288	Binding table is not getting cleared as DHCP snooping agent fails to process release packets.
CSCun88604	The G.8032 ring is not coming up unless CFM VLANs are in exclusion VLANs.
CSCuo08420	BFD fails while performing ERP open-close-ring combination with neighbor reload.
CSCuo09033	High convergence is observed with G.8032 followed by a failure in G.8032 open ring.
CSCuo53108	The NAT table shows incorrect translation entries for outside NAT.
CSCuo59884	Traceback is observed while booting up the ASR 901 10G router that supports IPsec feature.
CSCuo68068	Port Maintenance Endpoint (MEP) is not supported on port channel for offload and non-offload continuity check messages (CCM).
CSCuo75014	REP configured with platform fast-lsl is flapping after receiving multicast IGMPv4 join and leave messages.
CSCup03894	Router displays error message "media-type auto-select ^ % Invalid input detected at '^' marker" while trying to configure media-type (RJ-45 or SFP) on combo interfaces (g0/4 to g0/8).
CSCup15056	Router crashes due to memory corruption while performing a manual switch in G.8032
CSCup52216	Address Resolution Protocol (ARP) packets over xconnect interface are getting punted to CPU.
CSCup56741	After upstream router reload, PIM SM groups fail to move to the right RPF interface as CPU punt fails with NS flag.
CSCup66012	Configuring IP/VRF on reserved BD is moving the configuration to global table, instead of VRF table.
CSCup66350	Intermittent traceback is observed when OSPF is enabled over IPsec tunnel.
CSCup66406	OSPF prefixes over 60 fails to advertise over IPsec tunnel.
CSCup74175	Link flap is observed on adjacent ports when shut/no shut command is issued on an SFP port. Same issue is observed for OIR as well.
CSCup75918	Wrong (S,G) entry is observed with CPU punt enabled after running **clear ip route** command.
CSCup80154	Router hangs on write erase for a configuration file (with confreg 0x00).
CSCup82096	Router is accepting only a maximum of six RMEP with 100 ms in P2MP CFM offload sessions.
CSCup82217	Connectivity Fault Management (CFM) hardware offload session fails to establish Maintenance Domain Identifier.
CSCum40606	Layer 3 convergence is taking more than 200ms with G.8032.
CSCun12288	Offloaded CFM session is not coming up with untagged EVC MEP.

Bug ID	Description
CSCuo82115	CPU hog is observed during boot up. The ERP PP process is running for more than 28ms.
CSCuq07013	Traffic is not flowing from Cisco ASR 901 router running the IPsec software to other routers.
CSCuq11054	OSPF over IPsec tunnel is not coming up with AH encapsulation.

Resolved Caveats

This section provides information about the resolved caveats for the Cisco ASR 901 router running Cisco IOS Release 15.4(3)S.

Bug ID	Description
CSCuh37393	100M SFP support is not available for auto-select medium feature.
CSCuh86459	Detection of Avago type GigabitEthernet SFP may sometimes fail. To recover, remove and re-insert the SFP.
CSCui59984	Resilient Ethernet Protocol (REP) flaps with low Link Status Layer (LSL) timers, for the following scale: • Scale of MAC address • Scale of bridge-domain • Repeated or multiple REP topology changes • CPU intensive activities.
CSCuj62912	Platform logs are appearing on Downstream Unencrypted Traffic (DUT) console after enabling and disabling Bootstrap Router (BSR) route processor (RP) candidate.
CSCuj65984	FRR egress objects for L2VPN pseudowires may get leaked on flapping all IP routes multiple times.
CSCuj98996	After installing AdvancedMetroIPAccess license, router is setting it for next reboot level even though no license is set at boot level.
CSCul29833	Duplicate traffic is appearing in bridge domain (BD) after changing the designated router (DR) priority.
CSCul38240	Data packets are not getting spanned with port-channel as source port on PE having xconnect.
CSCul47423	During heavy traffic, some of the links stop transmitting traffic and link goes down with the error message *WP_ERR_MP_CHANNEL_NOT_DISABLED*.
CSCum24876	High convergence numbers are observed from the redundant path after the port channel is shut with REP preempt.
CSCum45798	Dynamic IP NAT is not working.
CSCun03936	Access list configuration fails during boot up when NAT is configured with pool.

Bug ID	Description
CSCun14432	Router crashes when GigabitEthernet interface is selected as the default interface.
CSCun30477	Traceback is observed with SNMPGET.
CSCun41498	Untagged EVCs are allowing tagged packets with Tag Protocol ID (TPID) of 9200.
CSCun41738	Traceback is observed on route processor while 500 MLD groups are used.
CSCun48620	Neighbor solicitation (NS) bit is not cleared for IPv4 multicast groups.
CSCun58224	Scaling NAT sessions leads to memory issues. This issue is observed when there are multiple translation entries of NAT with overload.
CSCun62497	After changing interface configurations (EVC), hardware multicast table is not getting updated properly.
CSCun76522	The Bit Error Rate Test (BERT) sync counter is not getting reset from one test to another.
CSCun96531	The **show license** command output always shows the ipsecnatpat license as 'not in use'.
CSCun99911	It is not possible to set **license boot level ipbase/advance** command on the Cisco ASR 901 Router, IPsec enabled Ethernet version.
CSCuo85100	The Cisco ASR 901 1G router automatically reloads when working at temperatures less than -20° Centigrade (-4° Fahrenheit).

Troubleshooting

The following sections describe troubleshooting commands you can use with the Cisco ASR 901 Series Aggregation Services Router.

Collecting Data for Router Issues

To collect data for reporting router issues, issue the following command:

- **show tech-support**—Displays general information about the router if it reports a problem.

Collecting Data for ROMMON Issues

To collect data for ROMMON issues, issue the following command while in the EXEC mode:

- **show rom-monitor**—Displays currently selected ROM monitor.

Note   If you contact Cisco support for assistance, we recommend that you provide any crashinfo files stored in flash memory. For more information about crashinfo files, see http://www.cisco.com/en/US/products/hw/routers/ps167/products_tech_note09186a00800a6743.shtml.

Related Documentation

Documents related to the Cisco ASR 901 Series Aggregation Services Router include the following:

- *Cisco ASR 901 Series Aggregation Services Router Hardware Installation Guide*
- *Cisco ASR 901 Series Aggregation Services Router Software Configuration Guide*
- *Regulatory Compliance and Safety Information for Cisco ASR 901 Series Aggregation Services Routers*
- *Cisco ASR 901 Series Aggregation Services Router Series MIB Specifications Guide*

To access the related documentation on Cisco.com, go to:

- Cisco ASR 901 1G Router home page:
  http://www.cisco.com/en/US/partner/products/ps12077/tsd_products_support_series_home.html
- Cisco ASR 901 10G Router home page:
  http://www.cisco.com/c/en/us/support/routers/asr-901-10g-series-aggregation-services-routers/tsd-products-support-series-home.html

Services and Support

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New* in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Release Notes for Cisco ASR 901 Aggregation Series Router for Cisco IOS Release 15.4(3)S