Release Notes for Cisco ASR 901 nV Series Aggregation Services Router for Cisco IOS Release 15.4(4)S

July 2014

OL-32759-01

This release notes is for the Cisco ASR 901 nV Series Aggregation Services Router for Cisco IOS Release 15.4(4)S and contains the following sections:

- Introduction, page 1
- System Specifications and Memory Details, page 2
- New and Changed Information, page 3
- Supported Hardware, page 4
- Caveats, page 6
- Troubleshooting, page 8
- Related Documentation, page 8
- Services and Support, page 9

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 Network Virtualization (nV) feature uses the Cisco ASR 901 Series Aggregation Services Router as a satellite to the Cisco ASR 9000 Series Aggregation Services Router. The nV mode of operation is separate from the standard mode of operation of the Cisco ASR 901 router. The features available in the standalone mode are not supported on the nV mode and the features available on the nV mode are not supported on the standalone mode.

Cisco Systems, Inc.
www.cisco.com

Note For steps to convert a Standard Cisco ASR 901 Router to Satellite (nV) router, see the *Network Virtualization Using Cisco ASR 901 Series Aggregation Services Router as a Satellite* guide at: http://www.cisco.com/c/en/us/td/docs/wireless/asr_901/Reference/guide/nv.html

Table 1 lists the Cisco ASR 901 router model versions that are supported as satellites.

Table 1 Cisco ASR 901 Router Models

TDM + Ethernet Version	Ethernet Version
• A901-12C-FT-D[1]	• A901-12C-F-D[1]
• A901-4C-FT-D[1]	• A901-4C-F-D[1]
• A901-6CZ-FT-D[1]	• A901-6CZ-F-D[1]
• A901-6CZ-FT-A[2]	• A901-6CZ-F-A[2]

1. DC power
2. AC power

Note TDM ports are disabled on the FT version of the Cisco ASR 901 router.

System Specifications and Memory Details

Table 2 lists the supported system configurations and memory details for the Cisco ASR 901 router:

Table 2 Cisco IOS Release 15.4(4)S System and Memory Details

Platform	Software Image	Flash Memory	DRAM Memory	Runs From
Cisco ASR 901 nV Series Aggregation Services Router as a Satellite, Ethernet version	asr901_sat-advipservices k9-mz	128 MB	512 MB	RAM

Determining the Software Version

To determine the image version of the 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:

```
Router> show version

Cisco IOS Software, 901 Software (ASR901-ADVIPSERVICESK9-M), Version 15.4(4), RELEASE
SOFTWARE (fc)
This software is supported for a limited time under special agreement with Cisco Systems,
Inc.
Copyright (c) 1986-2014 by Cisco Systems, Inc.
Compiled Mon 13-Jan-14 21:15 by prod_rel

ROM: System Bootstrap, Version 15.2(2r)SNH1, RELEASE SOFTWARE (fc1)
```

New and Changed Information

The Cisco IOS Release 15.4(4)S supports only the nV feature. Other standard features of the Cisco ASR 901 router are not part of this release.

- New Hardware Features in Release 15.4(4)S, page 3
- New Software Features in Release 15.4(4)S, page 3
- Modified Software Features in Release 15.4(4)S, page 4

New Hardware Features in Release 15.4(4)S

There are no new hardware features in Cisco IOS Release 15.4(4)S.

New Software Features in Release 15.4(4)S

Support of nV Satellite Dual Home to Two Separate Host ASR9000

For information about this feature, see the following URL:

http://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r5-2/nV/configuration/guide/b_nv_cg52xasr9k/b_nv_cg52xasr9k_chapter_01.html#concept_0FC19EDF07334725A86D4B93AE6D261B

Support on Host System to Simple Ring Topology of Satellites

For information about this feature, see the following URL:

http://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r5-2/nV/configuration/guide/b_nv_cg52xasr9k/b_nv_cg52xasr9k_chapter_01.html#concept_1F048C08D92245539CD0198B72286EB7

Support Layer 2 Fabric to Connect Remote Satellite to Host ASR9000

For information about this feature, see the following URL:

http://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r5-2/nV/configuration/guide/b_nv_cg52xasr9k/b_nv_cg52xasr9k_chapter_01.html#concept_13FE4C0A200944E596AA3662727E83F7

CFM 3.3ms Timer

For information about this feature, see the following URL:

http://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r5-2/nV/configuration/guide/b_nv_cg52xasr9k/b_nv_cg52xasr9k_chapter_01.html#task_E3A571B4977E48F383C7B155B6FD158B

Modified Software Features in Release 15.4(4)S

There are no modified features in Cisco IOS Release 15.4(4)S.

Supported Hardware

Table 3 shows the SFP modules supported on the Cisco ASR 901 routers:

Table 3 SFPs Supported on the Cisco ASR 901 Router

• 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]	• SFP-10G-SR
• GLC-EX-SMD	• SFP-10G-SR-X
• GLC-LH-SMD	• SFP-10G-ZR
• SFP-10G-ER	• SFP-10G-LRM
• SFP-10G-LR	• SFP-H10GB-ACU7M
• SFP-10G-LR-X	• SFP-H10GB-ACU10M
• DWDM-SFP+	• SFP-H10GB-CU1M
• GLC-LX-SM-RGD	• SFP-H10GB-CU3M
• GLC-SX-MMD	• SFP-H10GB-CU5M

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.

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

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(4)S.

Bug ID	Description
CSCuc19093	Flow control is deactivated on the satellite ports while reloading the satellite or changing the speed of the ports.
CSCuc36205	The satellite interfaces receive duplicate or multiple traps for interface down events.
CSCuc85675	The input or output byte counters on the satellite interfaces are not displayed properly.
CSCua59729	Protected and un-protected Interchassis Link (ICL) configuration cannot co-exist.
CSCuj55968	The satellite takes more time to connect to the host when load-balancing is configured on the access ports.
CSCum92479	Combo ports are not working when the speed is set to 100.
CSCun01560	When three satellites are connected in a chain (in the order of 300, 200, and 100), and the nV configurations of the first two satellites are removed (300 and 200), the third satellite (100) remains in connected state.
CSCul65453	High convergence numbers are observed when revertive switchover is performed on the ICL interface.
CSCum57183	Some of the Cisco ASR 901 satellite interfaces are becoming inactive after the in-place modification of the policy.

Resolved Caveats

This section provides information about the resolved caveats for the Cisco ASR 901 router running Cisco IOS Release 15.4(4)S.

Bug ID	Description
CSCuc65858	In rare conditions like multiple redundant or non-redundant link configuration changes, the outgoing multicast traffic is dropped for satellites with layer 2 configurations.
CSCuc99459	The loopback line and loopback internal features are not working.
CSCud04506	While loading the satellite, tracebacks are observed in the satellite console.
CSCud13208	Alarm or error message does not appear when there is a serial number mismatch.
CSCud13251	Forceful re-installation initiated message appears but the actual process does not start when the version is the same.
CSCud21673	Power module failure messages appear and they are cleared once in every two minutes.

Bug ID	Description
CSCud21867	The **show satellite environment** and **show satellite alarms** commands are not displaying any ouput, though they are supported.
CSCuc62155	High CPU usage is observed when two satellite Ethernet cross-link ports with propagate status are enabled.

Troubleshooting

The following sections describe troubleshooting commands you can use with the Cisco ASR 901 nV 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 nV 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*
- *Network Virtualization Using Cisco ASR 901 Series Aggregation Services Router as a Satellite*

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

http://www.cisco.com/en/US/partner/products/ps12077/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 nV Aggregation Series Router for Cisco IOS Release 15.4(4)S