



Release Notes for the *Cisco ASN Gateway* for Cisco IOS Release 12.4(15)XL

Cisco IOS Release 12.4(15)XL is a special release that is based on Cisco IOS Release 12.4, with the addition of enhancements to the Cisco ASN Gateway (ASN GW) feature. The Cisco IOS Release 12.4(15)XL is a release optimized for the Cisco ASN GW feature on the Cisco 7301 Series router, and the Cisco 6500 Catalyst Switch platform with the Cisco SAMI blade.

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Contents

These release notes include important information and caveats for the Cisco ASN GW software feature provided in Cisco IOS 12.4(15)XL for the Cisco 7301 series router, and the SAMI card on the Cisco 6500 Catalyst Switch platform and 7600 Series Router platform.

Caveats for Cisco IOS Release 12.4 can be found on Cisco.com at:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5187/tsd_products_support_series_home.html

Release notes for Cisco 6500 Family for Release 12.4 can be found on Cisco.com at:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/prod_release_notes_list.html

Release notes for the Cisco 7600 Family for Release 12.4 can be found on Cisco.com at:

http://www.cisco.com/en/US/products/hw/routers/ps368/prod_release_notes_list.html

Release notes for the Cisco 7300 Family for 12.4 can be found on Cisco.com at:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5207/prod_release_notes_list.html

This release note includes the following topics:

- [Introduction, page 2](#)
- [System Requirements, page 2](#)
- [Memory Requirements, page 3](#)
- [Hardware Supported, page 3](#)
- [Software Compatibility, page 3](#)



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- [Limitations and Restrictions, page 4](#)
- [Caveats, page 5](#)
 - [Open Caveats, page 5](#)
 - [Resolved Caveats, page 6](#)
- [Related Documentation, page 6](#)
- [Obtaining Documentation, Obtaining Support, and Security Guidelines, page 6](#)

Introduction

The Cisco ASN-GW functions in the gateway role in WiMax Access Service Network. WiMAX is a standards-based wireless technology that offers high throughput broadband connections over long distances. WiMAX can be used for a number of applications, including “last mile” broadband connections, hotspots and cellular backhaul, fixed and mobile cellular service, and high-speed enterprise connectivity for business.

The Cisco ASN GW colocates both the Decision and Enforcement Points (DP and EP), and acts as an interface to the Base-stations in each Access Services Network (ASN).

The ASN GW is the key to the IP mobility scheme. It provides the termination of the mobility function across base-stations and the foreign agent function. The ASN GW maps the radio bearer to the IP network. It works with the CSN and the policy servers to control policy on behalf of the user. Additionally, it acts as an IP gateway for the IP host function that is located on the Base Station. The ASN gateway brings together IP functions performed for the access network including end-to-end Quality of Service, Mobility and Security.

Cisco ASN GW Release 1.0 is supported on the following platforms:

- Cisco 7301 Series Router platform—Please refer to the following URL for installation and configuration information:

http://www.cisco.com/en/US/products/hw/routers/ps352/products_installation_and_configuration_guide_book09186a0080134551.html

**Note**

The Load Balancing and Session Redundancy features are not available for the ASN GW on the Cisco 7301 Series Router platform.

System Requirements

The following sections list the ASN GW system requirements.

- [Memory Requirements](#)
- [Hardware Supported](#)
- [Software Compatibility](#)

Memory Requirements

Table 1 shows the memory requirements for the ASN GW Software Feature Set that supports the Cisco 7301 Series router, and the SAMI card on the Cisco 6500 Catalyst Switch platform..

Table 1 *Memory Requirements for the Cisco 7301 Router and SAMI on the 6500 Catalyst Switch and 7600 Internet Router*

Platform	Software Feature Set	Image Name (ASN GW, SUP, IOS)	Flash Memory Required	DRAM Memory Required	Runs From
Cisco 7301 Router	ASN GW Software Feature Set	Sup720-3BXL, SUP IOS Release 12.2(33) ASN Image: c7301-w1is-mz.124-15.XL.bin	256 MB	512 MB	RAM
Cisco 6500 Catalyst Switch	ASN GW Software Feature Set	Sup720-3BXL, SUP IOS Release 12.2(33)	256 MB	512MB	RAM
Cisco 7600 Internet Router	ASN GW Software Feature Set	Sup720-3BXL, SUP IOS Release 12.2(33)	256 MB	512MB	RAM

- Cisco 7600 Series Router platform with a SAMI blade installed—Please refer to the following URL for installation and configuration information:

http://www.cisco.com/en/US/products/hw/routers/ps368/prod_installation_guides_list.html

- The Supervisor module (Sup720-3BXL, SUP IOS Release 12.2(33)) on the 7600 supports IOS-SLB functionality, and is enhanced to support ASNGW selection capability.
- A maximum of 8 blades can be supported per chassis.

The ASN GW can coexist with CSG2 and the HA on co-located blades.

Hardware Supported

Cisco IOS Release 12.4(15)XL is optimized for the Cisco ASN GW feature on the Cisco 7301 Series router, and the SAMI card on the Cisco 6500 Catalyst Switch platform.

A Hardware-Software Compatibility Matrix is available on Cisco.com for users with Cisco.com login accounts. This matrix allows users to search for supported hardware components by entering a Cisco platform and IOS Release. The Hardware-Software Compatibility Matrix tool is available at the following URL:

<http://www.cisco.com/cgi-bin/front.x/Support/HWSWmatrix/hwswwmatrix.cgi>

Software Compatibility

Cisco IOS Release 12.4(15)XL is a special release that is developed on Cisco IOS Release 12.4.

Cisco IOS Release 12.4(15)XL supports the same features that are in Cisco IOS Release 12.4, with the addition of the Cisco ASN GW feature.

Determining the Software Version

To determine the version of Cisco IOS software running on your router, log in to the router and enter the **show version EXEC** command.

New Software Features in Release 12.4(15)XL

The following features are supported on the ASN GW in Cisco IOS Release 12.4(15)XL:

- EAP Authentication
- Security Key Exchange
- IP Address Allocation using DHCP
- Service Flow creation and Management
- Qos Support
- User Group Management
- AAA Accounting Start/Stop/Interim
- Un Predictive Handoff
- KeepAlive Support on R6
- Session Redundancy (**Not supported on the Cisco 7301 Series Router**)
- Load Balancing (**Not supported on the Cisco 7301 Series Router**)
- MIB Support

Limitations and Restrictions

The following limitations and restrictions apply to the Cisco ASN GW feature in Cisco IOS Release 12.4(15)XL:

- The Load Balancing feature is not supported on the Cisco 7301 Series Router platform.
- The Session Redundancy feature is not supported on the Cisco 7301 Series Router platform.
- To avoid issues with high CPU usage, we recommend the following configurations:
 - To reduce the CPU usage during bootup, disable logging to the console terminal by configuring the **no logging console** global configuration command.
 - To ensure that the HSRP interface does not declare itself active until it is ready to process a peers Hello packets, configure the delay period before the initialization of HSRP groups with the **standby delay minimum 100 reload 100 interface** configuration command under the HSRP interface.

- To minimize issues with high CPU usage for additional reasons, such as periods of high PPP PDP processing (creating and deleting), disable the notification of interface data link status changes on all virtual template interfaces of the ASNGW using the **no logging event link-status** interface configuration command.

```
!
interface Virtual-Template1
description ASNGW-VT
ip unnumbered Loopback0
encapsulation gtp
no logging event link-status
gprs access-point-list gprs
end
```

Caveats

Caveats describe unexpected behavior in Cisco IOS software releases. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious.

Caveats for Cisco IOS Releases 12.3 can be found on Cisco.com at http://www.cisco.com/en/US/products/sw/iosswrel/ps5187/prod_release_notes_list.html

The [Open Caveats](#) section lists open caveats that apply to the current release and might also apply to previous releases.

The [Resolved Caveats](#) section lists caveats resolved in a particular release, which may have been open in previous releases.



Note

If you have an account with Cisco.com, you can use Bug Navigator II to find caveats of any severity for any release. You can reach Bug Navigator II on Cisco.com at **Software Center: Cisco IOS Software: Cisco Bug Toolkit: Cisco Bugtool Navigator II**, or at <http://www.cisco.com/support/bugtools>.

Open Caveats

The following caveats are unresolved in Cisco IOS Release 12.4(15)XL.

- CSCsk77506—SAMI LCP Hangs With ASNGW SR When a Switchover Happens

When repeated failovers (around 20 times) have been done in short duration (approximately, 4 hours), a processor in the standby card goes to a hung state.

The problem is seen in the lab after a high number of forced switchovers (~20) in a very short duration. The problem impacts the processor in the standby card.

In such a state, the following message might be printed.

```
“1w3d: %SVCLC-5-SVCLCNT: Could not update clock on the module 3, rc is -1”
```

Workaround: issue the **hw-module module slot-num reset** command on the standby card.

Resolved Caveats

There are no new resolved in Cisco IOS Release 12.4(15)XL.

Related Documentation

Except for feature modules, documentation is available in electronic form. Feature modules are available online on Cisco.com.

Use these release notes with these documents:

- [Release-Specific Documents](#)
- [Platform-Specific Documents](#)

Release-Specific Documents

- *Cisco Access Server Network Gateway (ASN GW) Feature in Cisco IOS Release 12.4(15)XL User Guide.*
- *Cisco Access Server Network Gateway (ASN GW) Feature in Cisco IOS Release 12.4(15)XL Command Reference.*

Platform-Specific Documents

Cisco ASN GW Release 1.0 is supported on the following platforms:

- Cisco 7301 Series Router platform—Please refer to the following URL for installation and configuration information:

http://www.cisco.com/en/US/products/hw/routers/ps352/products_installation_and_configuration_guide_book09186a0080134551.html

**Note**

The Load Balancing and Session Redundancy features are not available for the ASN GW on the Cisco 7301 Series Router platform.

Obtaining Documentation, Obtaining Support, and Security Guidelines

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>

This document is to be used in conjunction with the documents listed in the [“Related Documentation”](#) section.

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