



Release Notes for the *Cisco Broadband Wireless Gateway* for Cisco IOS Release 12.4(24)YG

Cisco IOS Release 12.4(24)YG is a special release that is based on Cisco IOS Release 12.4, with the addition of enhancements to the Cisco Broadband Wireless Gateway (BWG) feature. The Cisco IOS Release 12.4(24)YG is a release optimized for the Cisco 7600 Internet router platform with the Cisco SAMI blade.

Revised: 7 August 2009, OL-14680-01

Contents

These release notes include important information and caveats for the Cisco BWG software feature provided in Cisco IOS 12.4(24)YG for the SAMI card on the Cisco 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 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

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Introduction

The Cisco BWG 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 BWG 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 BWG 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 BWG 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 BWG brings together IP functions performed for the access network including end-to-end Quality of Service, Mobility and Security.

- 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 BWG selection capability.
- A maximum of 8 blades can be supported per chassis.
- The BWG can coexist with CSG2 and the HA on co-located blades.

The Supervisor 720 is supported, both in single and redundant mode. For the Supervisor 720, the 3B and 3BXL versions are supported, with the latter recommended and tested.

The Supervisor 32 is also supported in this release.

- 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 BWG selection capability.
- A maximum of 8 blades can be supported per chassis.

The BWG can co-exist with CSG2 and the HA on co-located blades.

System Requirements

The following sections list the BWG system requirements.

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

Memory Requirements

[Table 1](#) shows the memory requirements for the BWG Software Feature Set is supported on the Cisco SAMI card on the Cisco 7600 Series Router platform.

Table 1 *Memory Requirements for the Cisco SAMI on the 7600 Internet Router*

Platform	Software Feature Set	Image Name (BWG, SUP, IOS)	Flash Memory Required	DRAM Memory Required	Runs From
Cisco 7600 Internet Router	BWG Software Feature Set	SUP 720 3CXL, Sup720-3BXL, RSP720-3C-GE, and RSP720-3CXL-GE SUP, IOS Release 12.2(33) BWG Image: c7svcsami-w1is-mz.124-24.YG.bin	256 MB	1GByte per PPC	RAM

Hardware Supported

Cisco IOS Release 12.4(24)YG is optimized for the Cisco BWG feature on the SAMI card on the Cisco 7600 Series Router 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(24)YG is a special release that is developed on Cisco IOS Release 12.4.

Cisco IOS Release 12.4(24)YG supports the same features that are in Cisco IOS Release 12.4, with the addition of the Cisco BWG 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.

SUP Backward Compatibility

The BWG Release 2.0 on the Cisco 7600 hardware platform requires SUP software version SRE. However, BWG Release 2.0 will work with limited features with older SUP software version SRD.

In order to make BWG 2.0 work with SUP-SRD, configure the following hidden CLI at the global configuration mode:

	Command	Purpose
Step 1	<code>router(config)# wimax agw sup-backward-compatible</code>	Specifies that the BWG will work with the SRD Supervisor image.

With SUP-SRD, BWG Release 2.0 will primarily be used for Cisco-R6, PMIP, and other BWG1.x features.



Note

If you use the SUP-SRD image, the following features in BWG Release 2.0 are not supported:

- SLB Stickiness Support
- NWG R6 in SLB-mode.

New Features in Cisco IOS Release 12.4(24)YG

- Support for Proxy Mobile IPv4 (PMIPv4)
- AAA-Based Hot-lining (CoA)
- DSCP Marking
- WiMAX NWG Specification (1.2.2) Compliant
- Accounting Start Response
- SLB Stickiness Support
- AAA Packet of Disconnect Message (PoD)
- AAA-based Static IP Address Provisioning
- SLB Stickiness Support
- Lawful Intercept
- Hitless Software Upgrade
- Redundancy DHCP server

Features Introduced Before Cisco IOS Release 12.4(24)YG

The following features were introduced and supported on the BWG prior to Cisco IOS Release 12.4(24)YG:

- Host Based Accounting,
- Mobile to Mobile Traffic Steering,
- CAR/AAA Configuration,
- 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
- Load Balancing
- MIB Support
- EAP and PAP authentication
- Host behind Mobile Subscriber
- Subscriber Session Caching

- Maximum host overflow
- Critical Service Flow
- DHCP Release relay-only
- MS Attachment Response delay

Limitations and Restrictions

The following limitations and restrictions apply to the Cisco BWG feature in Cisco IOS Release 12.4(24)YG:

- 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.

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 12.4 can be found on Cisco.com at http://www.cisco.com/en/US/products/ps6350/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

There are no unresolved caveats in Cisco IOS Release 12.4(24)YG.

Resolved Caveats

The following caveats are resolved in Cisco IOS Release 12.4(24)YG:

- CSCsx07114

A vulnerability exists in Cisco IOS software where an unauthenticated attacker could bypass access control policies when the Object Groups for Access Control Lists (ACLs) feature is used. Cisco has released free software updates that address this vulnerability. There are no workarounds for this vulnerability other than disabling the Object Groups for ACLs feature. This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-acl.shtml>.

- CSCsy54122

A vulnerability exists in Cisco IOS software where an unauthenticated attacker could bypass access control policies when the Object Groups for Access Control Lists (ACLs) feature is used. Cisco has released free software updates that address this vulnerability. There are no workarounds for this vulnerability other than disabling the Object Groups for ACLs feature. This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-acl.shtml>.

- CSCsy15227

Cisco IOS Software configured with Authentication Proxy for HTTP(S), Web Authentication or the consent feature, contains a vulnerability that may allow an unauthenticated session to bypass the authentication proxy server or bypass the consent webpage.

There are no workarounds that mitigate this vulnerability.

This advisory is posted at the following link:

<http://www.cisco.com/warp/public/707/cisco-sa-20090923-auth-proxy.shtml>

- CSCsz38104

The H.323 implementation in Cisco IOS Software contains a vulnerability that can be exploited remotely to cause a device that is running Cisco IOS Software to reload. Cisco has released free software updates that address this vulnerability. There are no workarounds to mitigate the vulnerability apart from disabling H.323 if the device that is running Cisco IOS Software does not need to run H.323 for VoIP services. This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-h323.shtml>.

- CSCsx25880

A vulnerability exists in the Session Initiation Protocol (SIP) implementation in Cisco IOS Software that could allow an unauthenticated attacker to cause a denial of service (DoS) condition on an affected device when the Cisco Unified Border Element feature is enabled. Cisco has released free software updates that address this vulnerability. For devices that must run SIP there are no workarounds; however, mitigations are available to limit exposure of the vulnerability. This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-sip.shtml>.

- CSCsq24002

Cisco IOS Software contains a vulnerability that could allow an attacker to cause a Cisco IOS device to reload by remotely sending a crafted encryption packet. Cisco has released free software updates that address this vulnerability. This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-tls.shtml>.

- CSCsx70889
Cisco devices running affected versions of Cisco IOS Software are vulnerable to a denial of service (DoS) attack if configured for IP tunnels and Cisco Express Forwarding.
Cisco has released free software updates that address this vulnerability.
This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090923-tunnels.shtml>.

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 Broadband Wireless Gateway (BWG) Feature in Cisco IOS Release 12.4(24)YG User Guide* at the following URL:
http://www.cisco.com/en/US/docs/ios/12_4/12_4y/12_4_24yg/bwg_2_0/feature_guide/124x15feat.html
- *Cisco Broadband Wireless Gateway (BWG) Feature in Cisco IOS Release 12.4(24)YG Command Reference* at the following URL:
http://www.cisco.com/en/US/docs/ios/12_4/12_4y/12_4_24yg/bwg_2_0/command_ref/bwg2_0_cr.html

Platform-Specific Documents

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