

Features and Important Notes for Cisco IOS Release 15.4(1)S

These release notes describe the following topics:

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- [MIBs, page 24](#)
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New and Changed Information

This section lists the new hardware and software features supported on different platforms in Cisco IOS Release 15.4(1)S and contains the following subsections:

- [New Hardware Features in Cisco IOS Release 15.4\(1\)S2, page 21](#)
- [New Software Features in Cisco IOS Release 15.4\(1\)S2, page 21](#)
- [New Hardware Features in Cisco IOS Release 15.4\(1\)S1, page 21](#)
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- [New Hardware and Software Features supported on Cisco ASR 901 Series Routers in Cisco IOS Release 15.4\(1\)S, page 24](#)
- [New Hardware and Software Features supported on Cisco ASR 901 S Series Routers in Cisco IOS Release 15.4\(1\)S, page 24](#)
- [New Hardware and Software Features supported on Cisco ME 3600x and Cisco ME 3800x Series Routers in Cisco IOS Release 15.4\(1\)S, page 24](#)

New Hardware Features in Cisco IOS Release 15.4(1)S2

There are no new hardware features in Cisco IOS Release 15.4(1)S2.

New Software Features in Cisco IOS Release 15.4(1)S2

There are no new software features in Cisco IOS Release 15.4(1)S2.

New Hardware Features in Cisco IOS Release 15.4(1)S1

There are no new hardware features in Cisco IOS Release 15.4(1)S1.

New Software Features in Cisco IOS Release 15.4(1)S1

There are no new software features in Cisco IOS Release 15.4(1)S1.

New Hardware Features in Cisco IOS Release 15.4(1)S

There are no new hardware features in Cisco IOS Release 15.4(1)S.

New Software Features in Cisco IOS Release 15.4(1)S

This section describes new and changed features in Cisco IOS Release 15.4(1)S. Some features may be new to Cisco IOS Release 15.4(1)S but were released in earlier Cisco IOS software releases. Some features may have been released in earlier Cisco IOS software releases and have been changed in Cisco IOS Release 15.4(1)S. Links to feature modules are included. If a feature listed does not have a link to a feature module, that feature is documented only in the release notes.

BGP - EVPN / PBB_EVPN route-reflection

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/15-s/bgp-l3vpn-evpn-rr-support.html

BGP - IPv6 NSR

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/routers/7600/ios/15S/configuration/guide/7600_15_0s_book.html

BGP - RTC for legacy PE

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/15-s/irg-bgp-rtc-for-legacy-pe.html

BGP GSHUT enhancement

The BGP Graceful Shutdown (GSHUT) Enhancement feature enables graceful shutdown of either all neighbors or only virtual routing and forwarding (VRF) neighbors across BGP sessions. The following command has been introduced in this feature: **bgp graceful-shutdown all**.

BGP Monitoring Protocol

The BGP Monitoring Protocol (BMP) feature enables configuration and monitoring of BMP servers, establishing connection with the BMP clients, and monitoring and reporting of all configured BGP neighbors. The following commands were added or modified for this feature:

1. The “bmp-activate” keyword was added to the **neighbor** command.
2. The **bmp** command was added.
3. The **bmp server** command was added to enable bmp-server configuration sub-mode under router configuration mode.

Cisco 8-Port Channelized T1/E1 Shared Port Adapter (SPA-8XCHT1/E1-V2)

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/install_upgrade/7600series/SIP-SSC-SPA-HW-Install.html

IOS VRF Multicast Multi-Topology Support

For detailed information about this feature, see the following document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/mtr/configuration/15-s/vrf-support-mtr.html>

IPV6 VACL (Vlan Access Control List)

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/routers/7600/ios/15S/configuration/guide/7600_15_0s_book.html

ISIS local microloop protection

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_isis/configuration/15-s/irs-uloop-local-avoid.html

LMM support over PoCH on 7600

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/routers/7600/install_config/ES40_config_guide/es40_chap4.html

Multicast MT mode in VRF

For detailed information about this feature, see the following document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/mtr/configuration/15-s/vrf-support-mtr.html>

Multi-Topology BGP with VRF enhancement

The Multi-Topology BGP with VRF enhancement feature enables multi-topology BGP routing in VRF. There are no new BGP commands introduced or modified for this feature. If multi-topology BGP is configured, the **address-family (ipv4 | ipv6) multicast** command under a specific “vrf definition” is used for configuration; else all multicast VRF activity is configured using the **address-family (ipv4 | ipv6)** command under “vrf definition”.

OSPFv2 IP FRR Local Microloop Avoidance

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/15-s/iro-ospfv2-ip-frr.html

VPLS over rLFA-FRR on 7600

For detailed information about this feature, see the following document:

http://www.cisco.com/en/US/docs/routers/7600/ios/15S/configuration/guide/isis_lfa_ipfrr.html

VRF aware BGP translate-update

The VRF aware BGP translate-update feature enables customer devices, that contain an old version of Cisco software that does not support multicast BGP routing, to advertise its routes to multicast VRF-Lite, multicast VPN for VPNv4 and VPNv6 neighbors, as well as through IPv6 over IPv4 tunnel. The “neighbor” command is modified to include the “translate-update” keyword that enables this feature and applies only to the VRF address families.

New Hardware and Software Features supported on Cisco ASR 901 Series Routers in Cisco IOS Release 15.4(1)S

For detailed information about hardware and software features supported on Cisco ASR 901 Series Routers in Cisco IOS Release 15.4(1)S, see the following document:

http://www.cisco.com/en/US/docs/wireless/asr_901/Release/Notes/asr901_rn_15_4_1_S.html

New Hardware and Software Features supported on Cisco ASR 901 S Series Routers in Cisco IOS Release 15.4(1)S

For detailed information about hardware and software features supported on Cisco ASR 901 S Series Routers in Cisco IOS Release 15.4(1)S, see the following document:

http://www.cisco.com/en/US/docs/wireless/asr_901s/rn/b_release_notes_for_asr901s.html

New Hardware and Software Features supported on Cisco ME 3600x and Cisco ME 3800x Series Routers in Cisco IOS Release 15.4(1)S

For detailed information about hardware and software features supported on Cisco ME 3600x and Cisco ME 3800x Series Routers in Cisco IOS Release 15.4(1)S, see the following document:

http://www.cisco.com/en/US/docs/switches/metro/me3600x_3800x/software/release/15.4_1_S/release/notes/o131008.html

MIBs

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use the Cisco MIB Locator found at the following URL:

<http://tools.cisco.com/ITDIT/MIBS/servlet/index>

If the Cisco MIB Locator does not support the MIB information that you need, you can obtain a list of supported MIBs and download MIBs from the Cisco MIBs page at the following URL:

<http://www.cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml>

To access the Cisco MIB Locator, you must have an account on Cisco.com. If you have forgotten or lost your account information, send a blank email to cco-locksmith@cisco.com. An automatic check will verify that your email address is registered with Cisco.com. If the check is successful, account details with a new random password will be emailed to you. Qualified users can establish an account on Cisco.com by following the directions found at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Important Notes

The following sections contain important notes about Cisco IOS Release 15.4S:

- [Field Notices and Bulletins, page 25](#)

Field Notices and Bulletins

- Field Notices—Cisco recommends that you view the field notices for this release to see if your software or hardware platforms are affected. You can find field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.
- Bulletins—You can find bulletins at http://www.cisco.com/en/US/products/sw/iosswrel/ps5012/prod_literature.html.

