



New Features in and Important Notes About Cisco ASR 1000 Series Aggregation Services Routers Release 3.6S

This chapter provides information about the new features introduced in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6S. In addition, important notes about this release are also included.



Note

For information about the features in and important notes about releases prior to Release 3.6.0, see [Cisco IOS XE 3S Release Notes](#).

This chapter contains the following sections:

- [New and Changed Information, page 161](#)
- [Important Notes, page 169](#)

New and Changed Information

The following sections list the new hardware and software features that are supported by the Cisco ASR 1000 Series Routers for Cisco IOS XE Release 3.6S:

- [New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S, page 162](#)
- [New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S, page 162](#)
- [New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S, page 162](#)
- [New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S, page 162](#)
- [New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S, page 162](#)



- [New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S, page 162](#)

New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S

There are no new hardware features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S.

New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S

There are no new software features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.2S.

New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S

There are no new hardware features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S.

New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S

There are no new software features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.1S.

New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S

There are no new hardware features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6S.

New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S

The following are the new software features introduced in Cisco ASR 1000 Series Aggregation Services Routers Release 3.6S:

ACL syslog Correlation

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_acl/configuration/xs/sec-acl-syslog.html

Add Policy and Engineering Capabilities to PETR Usage

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/command/ip-lisp-cr-book.html

ALG: H.323 v6 Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipaddr_nat/configuration/xs/iadnat-applvlgw.html

Audio and Video SPA Supports High-Definition (HD) Video

Effective from Cisco IOS XE Release 3.6S, the WebEx Node SPA supports the WebEx *WBS27SP32* version. This WebEx version supports both High Quality (HQ) and High-Definition (HD) Video on the Audio and Video SPA.

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/configuration/ASR1000/ASRovwma.html#wpaudio_and_video_SPA

IPsec Feature License for Monitoring and Reporting

From Cisco IOS XE Release 3.6S onward, you can test IPsec features by activating the built-in evaluation license and accepting the End User License Agreement (EULA). You must activate this license and accept the EULA to ensure that the crypto commands associated with an interface are not blocked. For more information about this feature, see the *Software Activation Configuration Guide, Cisco IOS XE Release 3S* at the following location:

<http://www.cisco.com/en/US/docs/ios-xml/ios/csa/configuration/xs/csa-xe-3s-book.html>

BFD - BFD Hardware Offload Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/routers/7600/install_config/ES40_config_guide/es40_chap4.html#pxref23529

BFD C Bit Support - RFC5882

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bfd/configuration/xs/irb-xe-3s-book.html

BFD Support for EIGRP IPv6

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_eigrp/configuration/xe-3s/ire-bfd-ipv6.html

BFD: BGP Multihop Client Support and C Bit (IPv4/IPv6)

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-multihop-cbit.html

BGP - iBGP NSR

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-nsr-ibgp.html

BGP - mVPN BGP sAFI 129 - IPv4

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-mvpn-safi.html

BGP NSR - Autosense

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-nsr-autosense.html

BGP: Graceful Shutdown (GSHUT)

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-grace-shut.html

Carrier Grade Network Address Translation

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipaddr_nat/configuration/xe-3s/iadnat-cgn.html

CEM Support for SPA-2CHT3-CE-ATM

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/configuration/ASR1000/ASRspasw.html

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/install_upgrade/ASR1000/asr_sip_spa_hw.html

Cisco Unified Border Element (SP Edition): Common IP Address Media Bypass

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/sbcu/sbc_pol.html

Cisco Unified Border Element (SP Edition): Via Header Passthrough

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/sbcu/sbc_scf.html

Class Default Shaper on Physical Interface in Combination with Service Policy Applied to dMVPN Tunnel

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_dmvpn/configuration/xe-3s/sec-conn-dmvpn-xe-3s-book.html

CSL CallHome for the Cisco ASR 1001 Router

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/csa_callhome.html

EIGRP IPv6 NSF/GR

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_eigrp/configuration/xe-3s/eigrp-ip6-nsf.html

EIGRP Route Tag Enhancements

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/partner/docs/ios-xml/ios/iproute_eigrp/configuration/xe-3s/ire-en-rou-tags.html

Enhanced Route Tags

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_eigrp/configuration/xe-3s/ire-en-rou-tags.html

Ethernet Operations, Administration, and Maintenance (OAM)

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-oam.html>

GEC VPWS Support

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/mpIs.html>

Group Encrypted Transport VPN Key Server

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/sec-get-vpn.html

IOS ACL Support for Filtering IP Options

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_acl/configuration/xe-3s/sec-create-ip-al-filter.html

IP SLAs TWAMP Responder v1.0

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipsla/configuration/xe-3s/sla_twamp.html

IP Tunnel - SSO c7600

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/interface/configuration/xe-3s/ir-impl-tun-xe.html>

IPv6 ACL Extensions for Hop by Hop Filtering

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/ipv6/configuration/xe-3s/ip6-acl-ext-hbh-xe.html>

IPv6 VRF-Aware PBR Next-Hop Enhancement

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_13_vpns/configuration/xe-3s/mp-mltvrf-slet-pbr.html

ISG Downstream Enhancements—Passthrough and Idle-Timer

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/isg/configuration/xe-3s/isg-access-ip-sess.html>

IS-IS IPv6 Administrative Tag

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_isis/configuration/xr-3s/ip6-route-isis-adm-tag.html

IS-IS IPv6 Advertise Passive Only

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_isis/configuration/xr-3s/ip6-route-isis-adv-pass-onl.html

L2VPN Interworking: Frame Relay to ATM (Bridged Mode)

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/mppls.html>

LISP Virtualization Support for Multiple Parallel RLOC Domains

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/configuration/xr-3s/irl-xr-3s-book.html

MediaTrace 2.0

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/media_monitoring/configuration/xr-3s/mm-mediatrace.html

MPLS TE - TE Display Debug Info for PCALC Error Show Command

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/products/ps11174/prod_release_notes_list.html

MPLS Traffic Engineering - AutoTunnel Mesh Groups

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_te_path_setup/configuration/xr-3s/mp-te-autotun-mesh.html

MPLS Traffic Engineering - FRR Scalability Enhancements

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_te_path_protect/configuration/xr-3s/mp-te-frr-node-prot.html

MPLS Traffic Engineering (TE) - Class-Based Tunnel Selection

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_te_path_setup/configuration/xe-3s/mp-te-tun-select-xe.html

NBAR Classification Enhancements

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/qos_nbar/prot_lib/configuration/xe-3s/proto_lib1.html

OSPFv3 VRF-Lite/PE-CE

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/iro-vrf-lite-pe-ce.html

Per Tunnel QoS

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_dmvpn/configuration/xe-3s/sec-conn-dmvpn-xe-3s-book.html

Perf-mon V3

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/media_monitoring/configuration/xe-3s/mm-pasv-mon.html

Performance Monitoring - IPv6 Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/media_monitoring/configuration/xe-3s/mm-pasv-mon.html

Proxy Mobile IPv6 Local Mobility Anchor

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/partner/docs/ios-xml/ios/mob_pmip6/configuration/xe-3s/imo-pmip6-lma-support.html

Route Server Based Provisioning for P1TR

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/command/ip-lisp-cr-book.html

Routed Pseudowire and Routed VPLS

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_12_vpns/configuration/xe-3s/mp-rt-pw-rt-vpls.html

SSO Support for MPLS-TE Autotunnel-Automesh Feature

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_ha/configuration/xe-3s/mp-sso-supp-mpls-te-autotunnel-automesh.html

Support Multiple xTRs with Dynamic RLOCs at a Site

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/configuration/xe-3s/irl-xe-3s-book.html

USB eToken 64 KB Smartcard Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_pki/configuration/xe-3s/sec-store-pki-credential.html

Zone-Based Policy Firewall IPv6 Support

The zone-based policy firewall provides advanced traffic filtering or inspection of IPv4 and IPv6 packets. In Cisco IOS XE Release 3.6S and later releases, both IPv4 and IPv6 packet inspection are enabled by default. If you need to bypass the IPv6 packet inspection, you need to configure the pass action. The pass action passes the traffic from one zone to another. When the pass action is configured, the firewall does not inspect the traffic; it passes the traffic. In the IPv6 firewall, you must explicitly configure the pass action for the return traffic by defining a zone pair and a policy map with pass action.

For detailed information about the Zone-Based Policy Firewall IPv6 Support feature, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/sec-zbf-ipv6.html

Important Notes

The following sections contain important notes about Cisco ASR 1000 Series Aggregation Services Routers Release 3.6S.

Deferrals

Cisco IOS software images are subject to deferral. We recommend that you view the deferral notices at the following location to determine whether your software release is affected:

http://www.cisco.com/en/US/products/products_security_advisories_listing.html

Field Notices and Bulletins

- Field Notices—We recommend that you view the field notices for Release 3.6S to determine whether your software or hardware platforms are affected. You can find the field notices at the following location:

http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html

- Bulletins—You can find bulletins at the following location:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5012/prod_literature.html

Important Notes About Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S

There are no important notes specific to Cisco ASR 1000 Series Aggregation Services Routers Release 3.6.0S.