



# Release Notes for Cisco ASR 1000 Series Aggregation Services Routers for Cisco IOS XE Release 3.10.0Xb

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## Cisco IOS XE Release 3.10.0Xb

The Cisco IOS XE Release 3.10.0Xb is based on Cisco IOS XE Release 3.10.0 and is a continuation of Cisco IOS Release 2.5.1XC and are updated as needed. Use these release notes with the [Cross-Platform Release Notes for Cisco IOS XE Release 2.5.1XC and Earlier Releases](#) and [Cisco ASR 1000 Series Aggregation Services Routers Release Notes](#).

For information on IOS XE Release 3.7.0Xx releases, see [Release Notes for Cisco ASR 1000 Series Aggregation Services Routers for Cisco IOS XE Release 3.7.0Xx](#).

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## Introduction

Cisco IOS XE Release 3.10.0Xb is based on Cisco IOS XE Release 3.10.0 and is a continuation of Cisco IOS Release 2.5.1XC. Many features and hardware that are supported in this software have been previously released to customers on other software releases. This release is intended exclusively for the deployment of the Locator/ID Separation Protocol (LISP) functionality on the routers that are listed in the [“Supported Hardware” section on page 2](#) section.



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For information on new features and Cisco IOS commands that are supported by Release 3.10.0Xb, see the [“New and Changed Information” section on page 2](#).

## System Requirements

This section describes the system requirements for Cisco IOS XE Release 3.10.0Xb and earlier releases and includes the following section:

- [Supported Hardware, page 2](#)

## Supported Hardware

Cisco IOS XE Release 3.10.0Xb and earlier releases support the following Cisco routers:

Cisco Aggregation Services Router ASR 1000 Series with:

- Cisco ASR 1001 Router
- Cisco ASR 1002 Router
- Cisco ASR 1002-F Router
- Cisco ASR 1004 Router
- Cisco ASR 1006 Router

## New and Changed Information

This section lists the new hardware and software features supported by Cisco IOS XE Release 3.10.0Xb and contains the following subsections.

- [New Hardware Features in Cisco IOS Release 3.10.0Xb](#)
- [New Software Features in Cisco IOS Release 3.10.0Xb, page 2](#)

## New Hardware Features in Cisco IOS Release 3.10.0Xb

There are no new hardware features in Cisco IOS XE Release 3.10.0Xb.

## New Software Features in Cisco IOS Release 3.10.0Xb

This section describes the following new and changed software features in Cisco IOS Release 3.10.0Xb.

- [LISP Disjointed RLOC Support, page 3](#)
- [LISP Local EID Database Route Import Support, page 3](#)
- [LISP Local Map-Cache Route Import Enhancements, page 3](#)
- [LISP Map-Server Route Installation From Site Registration Support, page 3](#)
- [LISP Integrated MS/\(P\)ITR Map Cache Population From Site Registration Support, page 3](#)

## LISP Disjointed RLOC Support

When the LISP Disjointed RLOC feature is deployed, LISP sites connected to different RLOC spaces for which no direct reachability exists are able to communicate with each other. The LISP Disjointed RLOC feature automates the handling of both LISP control plane and data plane aspects to achieve this communication. Several examples of disjointed RLOC spaces include:

IPv4 and IPv6 Internet, two (or more) MPLS VPN networks, and Internet and MPLS VPNs.

## LISP Local EID Database Route Import Support

When the LISP Local EID Database Route Import feature is deployed, local EID database entries are created, with locators, priorities, and weights, by direct redistribution from the RIB. The LISP Local EID Database Route Import feature supports the import of static, connected, BGP, and IGP routes from the RIB. Prior to this feature, LISP EID prefixes could only be added through static configuration. Typically, this support is useful on LISP ETRs.

## LISP Local Map-Cache Route Import Enhancements

When the LISP Local Map-Cache Route Import feature is deployed, local map-cache entries with the action 'send-map-request' are created by direct redistribution from the RIB. The LISP Local Map-Cache Route Import feature supports the import of static, connected, BGP, and IGP routes from the RIB.

Prior to this enhancement, only import static and BGP RIB entries could be imported as map-cache (send-map-request) entries. Typically, this feature is useful on LISP PITRs and would be used in conjunction with the LISP Map-Server Route Installation From Site Registration feature.

## LISP Map-Server Route Installation From Site Registration Support

When a LISP site registers to a Map-Server, the Map-Server can automatically inject the registered EID prefix(es) into the local RIB. Once in the RIB, these EID prefixes can be redistributed into other routing protocols for desired use. It is possible to manipulate the administrative distance of the routes inserted by LISP. This feature is useful, for example, when used in conjunction with the LISP Local Map-Cache Route Import feature for automating the import of LISP EID prefixes into the LISP map-cache on the LISP PITR.

## LISP Integrated MS/(P)ITR Map Cache Population From Site Registration Support

When a LISP site registers to a device that is operating both as a LISP Map-Server and as a LISP Proxy Ingress Tunnel Router (PITR), the Map-Server can automatically create local map-cache entries with the action 'send-map-request' on the PITR. This simplifies the configuration and operational management of the PITR.

## Related Documentation

The following section describes the documentation available for Cisco IOS XE Release 3.9.0Xa.

## Release-Specific Documents

The following documents are specific to Cisco IOS XE Release 3.9.0Xa:

- *Cisco IOS LISP Command Reference for Cisco IOS Release 15.1(4)XB6* at:  
[http://www.cisco.com/en/US/docs/ios/lisp/command/reference/LISP\\_command\\_reference\\_1514xb6-only.pdf](http://www.cisco.com/en/US/docs/ios/lisp/command/reference/LISP_command_reference_1514xb6-only.pdf)
- Other LISP related documents can be found at:  
[http://lisp.cisco.com/lisp\\_down.html](http://lisp.cisco.com/lisp_down.html)



### Note

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If you do not find the answers to your questions or issues in the documentation that we have provided, please use the [lisp-support@cisco.com](mailto:lisp-support@cisco.com) mailing list.

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This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

This product includes cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

This product includes software written by Tim Hudson ([tjh@cryptsoft.com](mailto:tjh@cryptsoft.com)).

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This product includes cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)). This product includes software written by Tim Hudson ([tjh@cryptsoft.com](mailto:tjh@cryptsoft.com)).

**Original SSLeay License:**

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The implementation was written so as to conform with Netscapes SSL.

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This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section on page 3.

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