Cross-Platform Release Notes for Cisco IOS Release 15.3XB

November 26, 2013

Cisco IOS Release 15.3(3)XB12

Text Part Number: OL-31125-01

These release notes support Cisco IOS Release 15.3XB up to and including Cisco IOS Release 15.3(3)XB12. These release notes are based on Cisco IOS Release 15.3M&T and are updated as needed. Use these release notes with the *Cross-Platform Release Notes for Cisco IOS Release 15.3M&T*.

Note Cisco IOS Release 15.3(3)XB12, continues the LISP "XB" release numbering in order to indicate the LISP feature progression. The previous LISP "XB" release was Cisco IOS Release 15.2(4)XB11. See the *Cross-Platform Release Notes for Cisco IOS Release 15.2XB* for more information.

Contents

Introduction

Cisco IOS Release 15.3XB is based on Cisco IOS Release 15.3M&T. 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.

For information on new features and Cisco IOS commands that are supported by Release 15.3XB, see the "New and Changed Information" section on page 2.

System Requirements

This section describes the system requirements for Cisco IOS Release 15.3XB.

Supported Hardware

Cisco IOS Release 15.3XB supports the following Cisco routers:

- Cisco 800 (Cisco 819, Cisco 870 series, Cisco 880 series, Cisco 890 series)
- Cisco 1800 (Cisco 1801, Cisco 1802, Cisco 1803, Cisco 1805, Cisco 1811, Cisco 1812, Cisco 1841, Cisco 1861)
- Cisco 1900 (Cisco 1921, Cisco 1941/1941W)
- Cisco 2800 (Cisco 2801, Cisco 2811, Cisco 2821, Cisco 2851)
- Cisco 2900 (Cisco 2901, Cisco 2911, Cisco 2921, Cisco 2951)
- Cisco 3800 (Cisco 3825, Cisco 3845)
- Cisco 3900 (Cisco 3925, Cisco 3945, Cisco 3925E, 3945E)
- Cisco 7200 (Cisco 7201, Cisco 7204VXR, Cisco 7206VXR)

New and Changed Information

This section lists the new hardware and software features supported by Cisco IOS Release 15.3XB and contains the following subsections.

- New Hardware Features in Cisco IOS Release 15.3(3)XB12
- New Software Features in Cisco IOS Release 15.3(3)XB12

> **Note**
> These release notes are cumulative and list only features that are new to Cisco IOS Release 15.3XB. The parent release for Cisco IOS Release 15.3XB is Cisco IOS Release 15.3M&T. For information about inherited features, refer to Cisco.com or Cisco Feature Navigator. For Cisco.com, either go to Cisco.com and select the appropriate software release under Products and Service and Cisco IOS Software or go to http://www.cisco.com/cisco/web/psa/default.html and select the appropriate software release under Cisco IOS Software and Release Notes. You can use the Cisco Feature Navigator tool at http://www.cisco.com/go/fn.

New Hardware Features in Cisco IOS Release 15.3(3)XB12

There are no new hardware features in Cisco IOS Release 15.3(3)XB12.

New Software Features in Cisco IOS Release 15.3(3)XB12

This section describes new and changed software features in Cisco IOS Release 15.3(3)XB12.

- LISP Disjointed RLOC Support
- LISP Local EID Database Route Import Support
- LISP Local Map-Cache Route Import Enhancements
- LISP Map-Server Route Installation From Site Registration Support
- LISP Integrated MS/(P)ITR Map Cache Population From Site Registration Support

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 entires 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 entires 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 entires 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 Release 15XB.

Release-Specific Documents

The following documents are specific to Cisco IOS Release 15XB:

- *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

- Other LISP related documents can be found at:

  http://lisp.cisco.com/lisp_down.html

Note   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 mailing list.

Notices

The following notices pertain to this software license.

OpenSSL/Open SSL Project

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 (eay@cryptsoft.com).

This product includes software written by Tim Hudson (tjh@cryptsoft.com).

License Issues

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

OpenSSL License:

Copyright © 1998-2007 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/)".

4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.

5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.

6. Redistributions of any form whatsoever must retain the following acknowledgment:

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

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS"' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT

LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License:

Copyright © 1995-1998 Eric Young (eay@cryptsoft.com). All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com).

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

This library is free for commercial and non-commercial use as long as the following conditions are adhered to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. All advertising materials mentioning features or use of this software must display the following acknowledgement:

   "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)".

   The word 'cryptographic' can be left out if the routines from the library being used are not cryptography-related.

4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)".

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The license and distribution terms for any publicly available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution license [including the GNU Public License].

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, 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

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.