Introduction

This release notes contain information about downloading and installing Cisco IOS Release 12.2(33)SCJ. It also provides new and changed information, hardware support, limitations and restrictions, and caveats for Cisco IOS Release 12.2(33)SCJ.

For software caveats that apply to the Cisco IOS Release 12.2(33)SCJ on the Cisco uBR7200 series routers, see the corresponding release notes for Cisco uBR7200 Series Routers.

We recommend that you view the field notices for this release to see if your software or hardware platforms are affected. If you have an account on Cisco.com, you can find field notices at http://www.cisco.com/en/US/customer/support/tsd_products_field_notice_summary.html.

If you do not have a Cisco.com login account, you can find field notices at http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html.

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Cisco IOS Release 12.2(33)SCJ is generally available for field deployment. However, we recommend that you validate and qualify Cisco IOS Release 12.2(33)SCJ in a limited field trial with your specific network configuration requirements to ensure a smoother, faster, and successful field deployment.

This chapter includes the following sections:

- System Requirements, page 2
- Determining the Software Version, page 4
- Upgrading to a New Software Release, page 4
- Microcode Software, page 4
- Feature Support, page 6
- New and Changed Information, page 6
- MIBs, page 11
- Limitations and Restrictions, page 13
- Important Notes, page 15
- Obtaining Documentation and Submitting a Service Request, page 16
System Requirements

These sections describe the system requirements for Cisco IOS Release 12.2(33)SCJ:

Memory Requirements

This section describes the memory requirements for Cisco IOS Release 12.2(33)SCJ.

Note

Effective with Cisco IOS Release 12.2(33)SCC, the image size is greater than 65 MB and requires TFTP servers capable of downloading large images.

The following table displays the memory recommendations for the Cisco uBR10012 universal broadband router with Cisco IOS Release 12.2(33)SCJ feature sets.

Table 1: Memory Recommendations for the Cisco uBR10012 Router

<table>
<thead>
<tr>
<th>Feature Set</th>
<th>Cisco uBR10012 Route Processor</th>
<th>Software Image</th>
<th>RecommendedFlash Memory ¹</th>
<th>RecommendedDRAM Memory ²</th>
<th>RunsFrom</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCSIS Base 3 DES image and Lawful Intercept for Cisco PRE4 ³</td>
<td>PRE4</td>
<td>ubr10k4-k9p6u2-mz</td>
<td>128 MB</td>
<td>4 GB</td>
<td>RAM</td>
</tr>
<tr>
<td>DOCSIS BPI and Lawful Intercept for Cisco PRE4</td>
<td>PRE4</td>
<td>ubr10k4-k8p6u2-mz</td>
<td>128 MB</td>
<td>4 GB</td>
<td>RAM</td>
</tr>
<tr>
<td>DOCSIS Base 3DES image and Lawful Intercept for Cisco PRE5</td>
<td>PRE5</td>
<td>urb10k5-k9p6u2-mz</td>
<td>4 GB</td>
<td>4 GB</td>
<td>RAM</td>
</tr>
<tr>
<td>DOCSIS BPI and Lawful Intercept for Cisco PRE5</td>
<td>PRE5</td>
<td>urb10k5-k8p6u2-mz</td>
<td>4 GB</td>
<td>4 GB</td>
<td>RAM</td>
</tr>
</tbody>
</table>

¹ Recommended FLASH Memory refers to bootflash memory.
² DRAM memory is not configurable on the Cisco uBR10012 router.
³ PRE = Processor Routing Engine

Hardware Supported

The following sections list the hardware supported on various Cisco IOS Releases:
Cable Interface Line Cards Supported

The following table provides information about the supported cable interface line cards and processor engines in Cisco IOS Release 12.2(33)SCJ.

**Table 2: Supported Cable Interface Line Cards and Processor Engines**

<table>
<thead>
<tr>
<th>Supported Line Card</th>
<th>Supported Processor Engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco UBR-MC20X20—maximum 8</td>
<td>PRE4, PRE5</td>
</tr>
<tr>
<td>Cisco uBR-MC3GX60V—maximum 8</td>
<td>PRE4, PRE5</td>
</tr>
</tbody>
</table>

Other Hardware Supported

The following table provides information about other hardware supported in Cisco IOS Release 12.2SC.

**Table 3: Other Hardware Supported in Cisco IOS Release 12.2SC**

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Cisco uBR10012 Router</th>
<th>Minimum Cisco IOS Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco Wideband SIP and Cisco Wideband SPA</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCA</td>
</tr>
<tr>
<td>Cisco uBR10012 universal broadband router DTCC card</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCB</td>
</tr>
<tr>
<td>Cisco uBR10012 universal broadband router TCC+ card</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCA</td>
</tr>
<tr>
<td>Cisco 10000 Series SIP-600 and WAN SPAs (5-Port Gigabit Ethernet and the 1-Port 10 Gigabit Ethernet SPAs)</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCB</td>
</tr>
<tr>
<td>Cisco 10000 Series SIP-600 with the Cisco Wideband SPA</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCB</td>
</tr>
<tr>
<td>Cisco 3 Gbps Wideband Shared Port Adapter</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCH</td>
</tr>
<tr>
<td>Cisco 6 Gbps Wideband Shared Port Adapter</td>
<td>Yes</td>
<td>Cisco IOS Release 12.2(33)SCI</td>
</tr>
</tbody>
</table>
Determining the Software Version

To determine the version of the Cisco IOS software running on your Cisco universal broadband router, log in to the router and enter the `show version` EXEC command:

```
Router# show version
Cisco IOS Software, 10000 Software (UBR10K4-K9P6U2-M), Version 12.2(33)SCJ, EXPERIMENTAL
IMAGE ENGINEERING WEEKLY BUILD, synced to V122_33_2_16_SCI
Copyright (c) 1986-2014 by Cisco Systems, Inc.
ROM: System Bootstrap, Version 12.2(20071113:194412) [shalpin-rom-1_2 101], DEVELOPMENT SOFTWARE
```

Upgrading to a New Software Release

For information about upgrading the Cisco universal broadband routers, see the Software Installation and Upgrade Procedures document at the following location:

```
```

To choose a new Cisco IOS software release based on information about defects that affect that software, use Bug Search Tool at the following URL:

```
https://tools.cisco.com/bugsearch
```

Microcode Software

This section describes microcode software that is supported for the Cisco uBR10012 router.

SPA FPD Image Packages for the Cisco uBR10012

The field-programmable device (FPD) image packages are used to update the shared port adapter (SPA) FPD images. If a discrepancy exists between a SPA FPD image and the Cisco IOS image that is running on the router, the SPA is deactivated until this discrepancy is resolved.

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>The maximum time to upgrade the FPD image on one SPA is 2 minutes. The total FPD upgrade time depends on the number of SPAs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>The FPD image package that is used to upgrade SPAs on a router that runs Cisco IOS Release 12.2(33)SCJ is the ubr10k-fpd-pkg.122-33.SCJ pkg file.</td>
</tr>
</tbody>
</table>
Table 4: Cisco IOS Release 12.2SC Shared Port Adapter FPD Image Package Contents

<table>
<thead>
<tr>
<th>Supported SPAs</th>
<th>FPD ID</th>
<th>FPD Component Name</th>
<th>FPD Component Version</th>
<th>Minimum Required Hardware Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Port Gigabit Ethernet SPA</td>
<td>1</td>
<td>I/O FPGA</td>
<td>1.10</td>
<td>0.0</td>
</tr>
<tr>
<td>1-Port 10-Gigabit Ethernet SPA</td>
<td>1</td>
<td>I/O FPGA</td>
<td>1.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Cisco Wideband SPA</td>
<td>1</td>
<td>BLAZE FPGA</td>
<td>1285.1446</td>
<td>0.0</td>
</tr>
<tr>
<td>Cisco 3 Gbps Wideband Shared Port Adapter</td>
<td>1</td>
<td>WESTLAKE FPGA</td>
<td>0.41</td>
<td>0.0</td>
</tr>
<tr>
<td>Cisco 6 Gbps Wideband Shared Port Adapter</td>
<td>1</td>
<td>EASTLAKE FPGA</td>
<td>4096.56</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Upgrading from PRE2 to PRE4 Processors

Starting with Cisco IOS Release 12.2(33)SCG, only PRE4 is supported.

Note

A cold start of the router is required for an upgrade to a PRE4 from a PRE2 on a Cisco uBR10012 universal broadband router from a different release train, such as Cisco IOS Release 12.3(23)BC or other BC releases. For more information, see Cisco uBR10012 Universal Broadband Router Performance Routing Engine Module at:


Upgrading from Cisco IOS Release 12.3BC or Earlier Cisco IOS Software Release

For more information, see the Cisco uBR10012 Router Release Notes for Cisco IOS Release 12.2(33)SCA at the following URL:

Feature Support

Cisco IOS software is packaged in feature sets that consist of software images that support specific platforms. The feature sets available for a specific platform depend on which Cisco IOS software images are included in a release. Each feature set contains a specific set of Cisco IOS features.

⚠️ Caution

Cisco IOS images with strong encryption (including, but not limited to 168-bit [3DES] data encryption feature sets) are subject to U.S. government export controls and have limited distribution. Strong encryption images to be installed outside the United States are likely to require an export license. Customer orders may be denied or subject to delay because of U.S. government regulations. When applicable, the purchaser or user must obtain local import and use authorizations for all encryption strengths. Please contact your sales representative or distributor for more information, or send an e-mail to export@cisco.com.

Cisco Feature Navigator

Cisco Feature Navigator is a web-based tool that enables you to determine which Cisco IOS software images support a specific set of features and which features are supported in a specific Cisco IOS image. You can search by feature or by feature set (software image) and compare two Cisco IOS software releases. The Cisco Feature Navigator is updated regularly when major Cisco IOS software releases and technology releases occur. For the most current information, go to the Cisco Feature Navigator home page at the following URL:

http://www.cisco.com/go/fn

New and Changed Information

The following sections list the new and modified hardware and software features supported on the Cisco uBR10012 universal broadband routers in Cisco IOS Release 12.2(33)SCJ:

**New Hardware Features in Cisco IOS Release 12.2(33)SCJ4**

There are no new hardware features in Cisco IOS Release 12.2(33)SCJ4.

**New Hardware Features in Cisco IOS Release 12.2(33)SCJ3**

There are no new hardware features in Cisco IOS Release 12.2(33)SCJ3.

**New Hardware Features in Cisco IOS Release 12.2(33)SCJ2c**

There are no new hardware features in Cisco IOS Release 12.2(33)SCJ2c.
New Hardware Features in Cisco IOS Release 12.2(33)SCJ2b
There are no new hardware features in Cisco IOS Release 12.2(33)SCJ2b.

New Hardware Features in Cisco IOS Release 12.2(33)SCJ2a
There are no new hardware features in Cisco IOS Release 12.2(33)SCJ2a.

New Hardware Features in Cisco IOS Release 12.2(33)SCJ1a
There are no new hardware features in Cisco IOS Release 12.2(33)SCJ1a.

New Hardware Features in Cisco IOS Release 12.2(33)SCJ1
There are no new hardware features in Cisco IOS Release 12.2(33)SCJ1.

New Hardware Features in Cisco IOS Release 12.2(33)SCJ
There are no new hardware features in Cisco IOS Release 12.2(33)SCJ.

New Software Features in Cisco IOS Release 12.2(33)SCJ4
There are no new software features in Cisco IOS Release 12.2(33)SCJ4.

New Software Features in Cisco IOS Release 12.2(33)SCJ3
There are no new software features in Cisco IOS Release 12.2(33)SCJ3.

New Software Features in Cisco IOS Release 12.2(33)SCJ2c
There are no new software features in Cisco IOS Release 12.2(33)SCJ2c.

New Software Features in Cisco IOS Release 12.2(33)SCJ2b
There are no new software features in Cisco IOS Release 12.2(33)SCJ2b.

New Software Features in Cisco IOS Release 12.2(33)SCJ2a
There are no new software features in Cisco IOS Release 12.2(33)SCJ2a.
New Software Features in Cisco IOS Release 12.2(33)SCJ1a

This section describes the new software features in Cisco IOS Release 12.2(33)SCJ1a.

Toaster IRAM Parity Improvement

Starting from Cisco IOS Release 12.2(33)SCJ1a, the system shuts down the TMC cores which has Toaster IRAM parity error, and keeps other cores running. It can avoid the PXF crush and PRE switch over.

For more information about this feature, see the following URL:

New Software Features in Cisco IOS Release 12.2(33)SCJ1

There are no new software features in Cisco IOS Release 12.2(33)SCJ1.

New Software Features in Cisco IOS Release 12.2(33)SCJ

This section describes the new software features in Cisco IOS Release 12.2(33)SCJ.

BSoD VLAN Redundancy Configuration

The uplink redundancy interface is introduced to configure dot1q L2VPN backup WAN interface and a default primary interface. When the primary WAN interface goes down, backup WAN interface takes over and L2VPN traffic flow goes through the second interface.

For more information about this feature, see the following URL:

To configure dot1q L2VPN backup WAN interface for TLS, see the following URL:

IPv6 DRL Punt Codes

The per-divert-code rate limit can be configured on the upstream cable interface to reduce the CPU utilization and more punt codes are supported in this release.

The following new commands are introduced:

- service divert-rate-limit max-rate us-cable
- show pfx cpu statistics drl max-rate us-cable
- clear pfx statistics drl all

For more information about this feature, see the following URL:
Link Aggregation Control Protocol (IEEE 802.3ad)

The IEEE 802.3ad is the standard to aggregate physical Ethernet interfaces to form a logical Ethernet link using the Link Aggregation Control Protocol (LACP) that provides greater bandwidth, high availability, and auto reconfiguration.

LACP protocol aggregates interfaces by exchanging the Link Aggregation Control Protocol Data Units (LACPDUs) between two network switches or devices. LACP protocol instance runs on every switch and independently performs aggregations based on the local switch information and the exchanged LACPDUs.

The following new commands are introduced:

- `lacp system-priority`
- `lacp port-priority`
- `lacp min-bundle`
- `lacp max-bundle`
- `lacp fast-switchover`
- `show lacp`

For more information about this feature, see the following URL:

Manual Switchover through Command Line Interface

A new command is introduced to manually switchover from current active uplink port to another port when both the uplink ports are up.

The following command is introduced:

```
cable l2-vpn dot1q-nsi-redundancy force-switchover from active-nsi-interface
```

For more information about this feature, see the following URL:

PCMM IPv6 Voice

The Cisco CMTS routers support the PCMM IPv6 Voice feature.

For more information about this feature, see the following URL:

PCMM Multicast

PCMM multicast can be enabled by using packetcable multimedia command. Now both PCMM multicast and mVPN feature can work simultaneously, except for the NextGen mVPN.
For more information about this feature, see the following URL:

Verifying Transparent LAN Service over Cable

The following new command is introduced to verify the dot1q l2vpn uplink redundancy information on the Cisco CMTS routers:
show cable l2-vpn dot1q-nsi-redundancy

For more information about this feature, see the following URL:

Modified Software Features in Cisco IOS Release 12.2(33)SCJ4

There are no modified software features in Cisco IOS Release 12.2(33)SCJ4.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ3

There are no modified software features in Cisco IOS Release 12.2(33)SCJ3.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ2c

There are no modified software features in Cisco IOS Release 12.2(33)SCJ2c.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ2b

There are no modified software features in Cisco IOS Release 12.2(33)SCJ2b.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ2a

There are no modified software features in Cisco IOS Release 12.2(33)SCJ2a.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ1a

There are no modified software features in Cisco IOS Release 12.2(33)SCJ1a.

Modified Software Features in Cisco IOS Release 12.2(33)SCJ1

There are no modified software features in Cisco IOS Release 12.2(33)SCJ1.
Modified Software Features in Cisco IOS Release 12.2(33)SCJ

There are no modified software features in Cisco IOS Release 12.2(33)SCJ.

Features Integrated in Cisco IOS Release 12.2(33)SCJ4

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ4.

Features Integrated in Cisco IOS Release 12.2(33)SCJ3

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ3.

Features Integrated in Cisco IOS Release 12.2(33)SCJ2c

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ2c.

Features Integrated in Cisco IOS Release 12.2(33)SCJ2b

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ2b.

Features Integrated in Cisco IOS Release 12.2(33)SCJ2a

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ2a.

Features Integrated in Cisco IOS Release 12.2(33)SCJ1a

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ1a.

Features Integrated in Cisco IOS Release 12.2(33)SCJ1

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ1.

Features Integrated in Cisco IOS Release 12.2(33)SCJ

There are no features integrated in to Cisco IOS Release 12.2(33)SCJ.

MIBs

To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:
http://tools.cisco.com/ITDIT/MIBS/servlet/index

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


New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ4

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ4.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ3

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ3.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ2c

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ2c.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ2b

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ2b.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ2a

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ2a.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ1a

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ1a.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ1

There are no new or changed MIBs in Cisco IOS Release 12.2(33)SCJ1.

New and Changed MIB Information in Cisco IOS Release 12.2(33)SCJ

This section describes the new or changed MIBs in Cisco IOS Release 12.2(33)SCJ.

- IEEE8023-LAG-MIB
Limitations and Restrictions

This section describes restrictions for the Cisco universal broadband routers in Cisco IOS Release 12.2(33)SC.

Unsupported Hardware

For a list of unsupported hardware, see the End-of-Life and End-of-Sale Notices at:

Software Feature Restrictions

This section describes other important guidelines or restrictions to consider when running Cisco IOS Release 12.2SC that might not yet be documented in the supporting customer documentation.

DOCSIS 3.0 Load Balancing

Note

Effective with Cisco IOS Release 12.2(33)SCG1, the Cisco uBR-MC3GX60V line card and up to five Cisco Wideband SPAs can be configured to the same LBG.

DOCSIS

• You cannot configure a US connector to more than one fiber node.

• Multicast over DOCSIS L2VPN does not work for a DOCSIS 3.0-bonded cable modem (CM) when DOCSIS L2VPN is provisioned on a DOCSIS 3.0-bonded CM and downstream multicast traffic is sent over L2VPN. You can use a DOCSIS L2VPN classifier to classify multicast traffic on a secondary DS service flow with SF attributes (TLV 25.31/32) specifying primary DS for the CM. As a result, L2VPN multicast traffic uses the primary DS and L2VPN unicast traffic is forwarded over the primary bonding group. The service flow attribute feature is available in Cisco IOS Release 12.2SCB.

DTI Card Configuration

The Cisco uBR10012 universal broadband router TCC card does not work as expected when the startup configuration contains the configuration for a Cisco uBR10012 universal broadband router TCC+ card. To fix this issue, use the no card slot/subslot 2cable-tcplus command and then configure the DTI card.

MIBs Restrictions

• IP-MIB is implemented as read-only. Writing is not supported for ipv6IPForwarding or ipv6IpDefaultHopLimit.
• docsI3MdCfiMcastDsldFwdEnabled object is implemented as read-only.
• cdxBWQueueMaxDepth object sometimes reports a value out of range. The supported range is from 0 to 64, but the object sometimes returns a value of 128 when queried.

PacketCable

Payload Header Suppression (PHS) is not supported on wideband Embedded Media Terminal Adapters (eMTAs) for dynamic downstream service flows.

PXF

Statistics for two different divert-rate limit (DRL) WAN-IP streams can momentarily overlap or collide and produce statistics that are lower than expected.

Redundancy

• Longer dropout times (about 6 seconds) can occur when you use the OIR method to trigger a cable line card switchover on the Cisco uBR10012 router. To repair or maintain a cable line card and get better switchover performance, use the redundancy linecard-group switchover command to trigger the line card switchover instead.
• Although the software does not prevent it, preconfiguring commands on a protect line card is not supported.
• A dynamic service-flow for a PacketCable call is not deleted during a line card switchover.
• Although the Cisco CMTS router is initially configured only for global N+1 redundancy, the show running-configuration command displays both global and legacy interface-level Hot-Standby Connection-to-Connection Protocol (HCCP) configuration when you change the redundancy mode configuration from SSO to RPR mode. If you switch back to SSO mode, both redundancy configurations are still shown.
• In very rare circumstances, after an N+1 switchover, upstream traffic that is using Baseline Privacy Interface (BPI) encryption is not received properly by the CMTS router. Input errors are logged on the interface and the debug cable error command shows error messages similar to the following:

Cable5/1/4: Bad rx packet. JIB status code 0xA
The issue occurs on upstream channels that use a shared connector, where the other upstream channel using the same shared connector is on another downstream and is shutdown. To workaround this issue, you can activate the downstream and other upstream channel using the same shared connector or temporarily unshare the upstream connector.

Wideband

If you configure a wideband interface with more than one MAC domain host sharing the committed information rate (CIR) bandwidth, then the total wideband interface CIR bandwidth gets fragmented among the MAC domain (MD) hosts sharing the wideband interface CIR bandwidth.

The WB interface CIR bandwidth can be shared by multiple MAC domain hosts, and these MAC domain hosts could potentially be on the same or different cable line cards. As admission control for WB interfaces
occurs on cable line cards, the available CIR bandwidth gets partitioned and is given to the MD hosts causing the bandwidth fragmentation. However if a typical service flow CIR is very small compared to the total CIR of the wideband interface, then this fragmentation is not visible until the CIR usage reaches very high levels close to the total interface bandwidth.

With certain bandwidth percentage configuration and traffic distribution, the overall link utilization of dynamic bandwidth sharing (DBS) can be as low as 85 percent. For example, this can occur if the traffic rate on a wideband interface is smaller than its configured bandwidth percentage, but the traffic rate on a modular-cable interface is much larger than its bandwidth percentage. The packet drops occur only on the modular-cable interface which has a larger amount of traffic than its bandwidth-percentage. To workaround this scenario, configure a higher bandwidth percentage to the modular-cable interface, which is larger than or equal to its expected or average traffic rate.

Important Notes

The following sections list the important notes for the Cisco uBR10012 routers:

Important Notes for Cisco IOS Release 12.2(33)SCJ4

There are no important notes for Cisco IOS Release 12.2(33)SCJ4.

Important Notes for Cisco IOS Release 12.2(33)SCJ2c

There are no important notes for Cisco IOS Release 12.2(33)SCJ2c.

Important Notes for Cisco IOS Release 12.2(33)SCJ2b

There are no important notes for Cisco IOS Release 12.2(33)SCJ2b.

Important Notes for Cisco IOS Release 12.2(33)SCJ2a

There are no important notes for Cisco IOS Release 12.2(33)SCJ2a.

Important Notes for Cisco IOS Release 12.2(33)SCJ1a

There are no important notes for Cisco IOS Release 12.2(33)SCJ1a.

Important Notes for Cisco IOS Release 12.2(33)SCJ1

- Effective with Cisco IOS Release 12.2(33)SCJ1, redundancy px-fail-switchover-trap enable command is introduced to enable the RF trap and to send the extended trap.
- Effective with Cisco IOS Release 12.2(33)SCJ1, cable ipc-watermark command is introduced to configure the watermark level.
• Effective with Cisco IOS Release 12.2(33)SCJ1, cable toaster-shrink command is introduced to enable turbo mode which uses six or seven pipelines.

• Effective with Cisco IOS Release 12.2(33)SCJ1, cable toaster-voltage-adjust groupA command is introduced to change PRE5 toaster voltage from 1.2 V to 1.3 V for T0 to T3, and cable toaster-voltage-adjust groupB command is introduced to set high voltage margin for T4.

• Effective with Cisco IOS Release 12.2(33)SCJ1, show pxf cpu sunblock command displays the Parallel eXpress Forwarding (PXF) encapsulation type also.

Important Notes for Cisco IOS Release 12.2(33)SCJ

There are no important notes for Cisco IOS Release 12.2(33)SCJ.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation at: http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html

Subscribe to What’s New in Cisco Product Documentation , which lists all new and revised Cisco technical documentation as an RSS feed and delivers content directly to your desktop using a reader application. The RSS feeds are a free service.