



Release Notes for the Cisco 10000 Series Router for Cisco IOS Release 12.0(30)SZ9

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These release notes provide information about Cisco IOS Release 12.0(30)SZ9 for the Cisco 10000 Series Router. This release is a maintenance release and has no new features.

For a list of the software caveats that apply to Cisco IOS Release 12.0(30)SZ9, see the “[Caveats for Cisco IOS Release 12.0\(30\)SZ9](#)” section on page 4.

Cisco IOS Release 12.0(30)SZ9 is based on the following releases:

- Cisco IOS Release 12.0(30)S5
- Cisco IOS Release 12.0(30)SZ through Release 12.0(30)SZ8

To review the release notes for Cisco IOS Release 12.0S, go to:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1829/prod_release_notes_list.html

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/warp/customer/tech_tips/index/fn.html. If you do not have a Cisco.com login account, you can find field notices at http://www.cisco.com/warp/public/tech_tips/index/fn.htm.

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System Requirements

The following sections describe the system requirements for Cisco IOS Release 12.0(30)SZ9:

- [Supported Hardware, page 2](#)
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Supported Hardware

For Cisco IOS Release 12.0(30)SZ9, you must have the performance routing engine (PRE), Part Number ESR-PRE1, installed in the Cisco 10000 series chassis. To verify which PRE is installed in the router, use the **show version** command.

For information about line cards supported by Cisco 10000 series routers, see the “[Supported Line Cards for the 10000 Series Routers](#)” section in the *Cross-Platform Release Notes for Cisco IOS Release 12.0S, Part 1: System Requirements* at:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1829/prod_release_note09186a00803c2dcb.html

Feature Support

Cisco IOS software is packaged in feature sets, depending on the platform. Each feature set contains a specific set of Cisco IOS features.

Cisco IOS Release 12.0(30)SZ9 is based on Cisco IOS Release 12.0(30)S5 and subsequent Cisco IOS Release 12.0(30)SZx maintenance releases. All features supported by Cisco IOS Release 12.0S up to and including Release 12.0(30)S5 are supported by Cisco IOS Release 12.0(30)SZ9.



Caution

Cisco IOS images with strong encryption (including, but not limited to, 168-bit Triple Data Encryption Standard [3DES] data encryption feature sets) are subject to United States 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 United States government regulations. When applicable, purchaser and user must obtain local import and use authorizations for all encryption strengths. Contact your sales representative or distributor for more information, or send an e-mail to export@cisco.com.

Upgrading to a New Software Release

The following sections provide information about upgrading your Cisco 10000 series router to a new software release:

- [Before You Upgrade the Cisco IOS Software, page 3](#)
- [Information About Upgrading to a New Software Release, page 3](#)

Before You Upgrade the Cisco IOS Software

Before you upgrade (or downgrade) the Cisco IOS software running on the Cisco 10000 series router, save the running configuration file using the **copy** command. In route processor redundancy (RPR) mode, the router synchronizes only the startup configuration.

Information About Upgrading to a New Software Release

For specific information about upgrading your Cisco 10000 series router to a new software release, see the *Cisco 10000 Series Router Performance Routing Engine Installation* at:

http://www.cisco.com/en/US/products/hw/routers/ps133/prod_installation_guide09186a0080525aba.html

For general information about upgrading to a new software release, see the product bulletin *Cisco IOS Upgrade Ordering Instructions* at:

http://www.cisco.com/warp/public/cc/pd/iosw/prodlit/957_pp.htm#wp26467

For additional information about ordering Cisco IOS software, see the Products and Services Ordering website at:

<http://www.cisco.com/en/US/ordering/index.shtml>

New and Changed Features

Cisco IOS Release 12.0(30)SZ9 is a maintenance release and has no new hardware or software features.

For information about new features supported on the Cisco 10000 series router in other releases, see the appropriate release notes at:

http://www.cisco.com/en/US/products/hw/routers/ps133/prod_release_notes_list.html

For information about Cisco IOS Release 12.0(30)S, see the appropriate document at:

http://www.cisco.com/en/US/products/sw/iosswrel/ps1829/prod_release_notes_list.html

Important Notes

The following sections provide important information:

- [Inserting a New Line Card, page 3](#)
- [Deferring Cisco IOS Software Images, page 4](#)

Inserting a New Line Card

Unlike other Cisco routers, if you insert a new or different line card into a Cisco 10000 series chassis slot that previously had a line card installed, the line card initially reports that it is administratively up.

Deferring Cisco IOS Software Images

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

<http://www.cisco.com/kobayashi/sw-center/sw-ios-advisories.shtml>

Caveats for Cisco IOS Release 12.0(30)SZ9

Caveats describe unexpected behavior in Cisco IOS software releases. This document includes caveats ranging from severity 1 to severity 3 only. Severity 1 caveats are the most serious caveats; severity 2 caveats are less serious. Severity 3 caveats are moderate caveats.

Cisco IOS Release 12.0(30)SZ9 is based on Cisco IOS Release 12.0(30)S5 and Releases 12.0(30)SZ through 12.0(30)SZ8, and contains all of the open and resolved caveats in these releases. For information on the caveats in these releases, see the following release notes documents:

- For Cisco IOS Release 12.0(30)S5, see the *Cross-Platform Release Notes for Cisco IOS Release 12.0S, Part 3: Caveats for 12.0(30)S through 12.0(32)S6* at:
http://www.cisco.com/en/US/products/sw/iosswrel/ps1829/prod_release_note09186a00803c2609.html
- For other Cisco IOS Release 12.0(30)SZ releases, see the release notes section titled “Cisco IOS Release 12.0SZ” at:
http://www.cisco.com/en/US/products/hw/routers/ps133/prod_release_notes_list.html



Note If you have an account on Cisco.com, you can also use the Bug Toolkit to find select caveats of any severity. To reach the Bug Toolkit, log in to [Cisco.com](http://www.cisco.com) and click **Products and Services > Cisco IOS Software > Cisco IOS Software Releases 12.2 > Troubleshooting > Bug Toolkit**. Another option is to go to http://www.cisco.com/cgi-bin/Support/Bugtool/launch_bugtool.pl. (If the defect that you request is not displayed, it might be due to one or more of the following reasons: the defect number does not exist, the defect does not have a customer-visible description yet, or the defect has been marked Cisco Confidential.)

The following sections describe open and resolved caveats for Cisco IOS Release 12.0(30)SZ9:

- [Open Caveats in Cisco IOS Release 12.0\(30\)SZ9, page 4](#)
- [Resolved Caveats in Cisco IOS Release 12.0\(30\)SZ9, page 6](#)

Open Caveats in Cisco IOS Release 12.0(30)SZ9

This section describes caveats that are open in Cisco IOS Release 12.0(30)SZ9.

CSCdy45049

During a lab stress test, line rate traffic does not always achieve line rate when the configuration scales to more than 3000 serial interfaces. This problem occurs only when thousands of serial interfaces with PPP or HDLC encapsulation are used on the port and line rate traffic is sent through all interfaces.

Workaround: No workaround is available.

CSCeh48414

During high availability (HA) testing of the Stateful Switchover (SSO) feature, traffic is not stable before or after the switchover occurs. This behavior occurs on a Cisco 10000 series router with 200 serial network interfaces, two channelized OC-12 interfaces, and one Ethernet interface. This symptom is observed on the 200 interfaces and only when the router is running Cisco IOS Release 12.0(25)SX10.

Workaround: No workaround is available.

CSCeh73497

After a route processor (RP) switchover, the following message is sometimes observed. This behavior occurs on the Cisco 10000 series router with redundant PRE1 cards and with RPR+ mode configured.

```
C10KEVENTMGR-1-IRONBUS_FAULT: Barium Error
```

The message results from an internal timing issue during the RP switchover. The affected line card recovers successfully and no performance impact is observed.

Workaround: No workaround is available.

CSCei93434

In a high availability (HA) environment with multilink point to point (MLPPP) interfaces configured, after a PRE cutover a small PXF buffer leak is observed. As shown in the following sample output, for buffer pool 3 the total number of buffers (67666) does not equal the number of available buffers (67139). This mismatch occurs when the router is running Cisco IOS Release 12.0(28)S4.

pool	size	# buffer	available	allocate failures
0	9216	100	100	0
1	4672	500	500	0
2	1600	30000	30000	0
3	640	67666	67139	0
4	256	98165	98165	0
5	64	131000	131000	0

Workaround: No workaround is available.

CSCej89322

Spurious memory access is observed at fib_notify_interface_state_change after the secondary switchover in the primary router. This symptom occurs on the router when running Cisco IOS Release 12.0(30)S4 and Release 12.0(28)S5.

Workaround: No workaround is available.

CSCsg51693

A random ping failure occurs between two CE routers and is randomly observed across different virtual private networks (VPNs) for more than 300 VPNs. The number of ping failures across the VPNs varies randomly. The number of VPNs is set to 500 and the number of VPN routes is set to 136. Ping operations between two PE routers are successful. The ping failure is not observed when the number of VPN routes is set to 0 and the number of VPNs is set to 999. This symptom occurs when the router is running Cisco IOS Release 12.0(30)SZ and Release 12.0(30)SZ2.

Workaround: No workaround is available.

Resolved Caveats in Cisco IOS Release 12.0(30)SZ9

This section describes caveats that were fixed in Cisco IOS Release 12.0(30)SZ9.

CSCin78176

During per-packet load balancing, the Cisco 10000 series router stopped working. This failure occurred when multiple tests were conducted without performing cleaning on a Cisco 10000 series router that runs an interim release of Cisco IOS Release 12.0(30)S. The problem was platform-independent and has been fixed.



Note

Cleaning comprises the following steps:

1. Erase all configurations from the router.
2. Load the boot image, load the minimum configuration, and save the configuration.
3. Reload the router with the correct image and load the proper configuration.

CSCsm35870

After online insertion and removal (OIR) or resetting of a line card, E1 controllers continuously flapped with RMAI alarms. This behavior persisted even after putting the controller on an internal loop and internal clock. This problem has been fixed.

CSCsq30252

After an internal loop s was added to a Cisco 10000 series router with internal clocking, an E1 controller flapped due to RMAI alarms. This behavior was observed after upgrading a line card on a Cisco 10000 series router running Cisco IOS Release 12.2(31)SB. This problem has been fixed.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, 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>

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