



# Release Notes for Cisco 1800 Series Routers with Cisco IOS Release 12.4(15)XZ

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**Cisco IOS Release 12.4(15)XZ2**  
**OL-19157-01 First Release**

These release notes describe new features and significant software components for the Cisco 1800 series routers that support Cisco IOS Release 12.4(15)XZ. These release notes are updated as needed. Use these release notes with the [Cross-Platform Release Notes for Cisco IOS Release 12.4T and About Cisco IOS Release Notes](#).

For a list of the software caveats that apply to the Release 12.4(15)XZ releases, see the “[Caveats](#)” section on [page 5](#), and see the online [Caveats for Cisco IOS Release 12.4\(20\)T](#) document. The caveats document is updated for every 12.4T maintenance release.

## Contents

- [System Requirements, page 2](#)
- [New and Changed Information, page 4](#)
- [Caveats, page 5](#)
- [Additional References, page 11](#)
- [Notices, page 12](#)



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# System Requirements

This section describes the system requirements for Cisco IOS Release 12.4(15)XZ and includes the following sections:

- [Memory Requirements, page 2](#)
- [Hardware Supported, page 3](#)
- [Determining the Software Version, page 4](#)
- [Upgrading to a New Software Release, page 4](#)
- [Feature Set Tables, page 4](#)

## Memory Requirements

[Table 1](#) lists the memory requirements for the Cisco IOS feature sets that are supported by Cisco IOS Release 12.4(15)XZ on the Cisco 1800 series routers.

**Table 1** *Memory Requirements for the Cisco 1800 Series Routers*

Platform	Image Name	Image	Flash (MB)	RAM (MB)
Cisco 1841	Cisco 1841 IOS Advanced Enterprise Services	adventerprisek9-mz	64	192
	Cisco 1841 IOS AISK9-AESK9 Feature Set Factory Upgrade For Bundles	adventerprisek9-mz	64	192
	Cisco 1841 IOS ASK9-AESK9 Feature Set Factory Upgrade For Bundles		64	192
	Cisco 1841 IOS BB-AESK9 Feature Set Factory Upgrade For Bundles		64	192
	Cisco 1841 IOS Advanced IP Services	advipservicesk9-mz	64	128
	Cisco 1841 IOS ASK9-AISK9 Feature Set Factory Upgrade For Bundles		64	128
	Cisco 1841 IOS BB-AISK9 Feature Set Factory Upgrade For Bundles		64	192
	Cisco 1841 IOS AISK9-AISK9 Feature Set Factory Upgrade For Bundles		64	192

**Table 1** *Memory Requirements for the Cisco 1800 Series Routers (continued)*

Platform	Image Name	Image	Flash (MB)	RAM (MB)
Cisco 1841	Cisco 1841 IOS Advanced Security	advsecurityk9-mz	64	192
	Cisco 1841 IOS BB-ASK9 Feature Set Factory Upgrade For Bundles		64	192
	Cisco 1841 IOS ASK9-ASK9 Feature Set Factory Upgrade For Bundles		64	192
	Cisco 1841 IOS Broadband	broadband-mz	32	128
	Cisco 1841 IOS BB-BB Feature Set Factory Upgrade For Bundles		32	128
	Cisco 1841 IOS Enterprise Base without Crypto	entbase-mz	64	128
	Cisco 1841 IOS Enterprise Base	entbasek9-mz	64	128
	Cisco 1841 IOS Enterprise Services without Crypto	entservices-mz	64	192
	Cisco 1841 IOS Enterprise Services	entservicesk9-mz	64	192
	Cisco 1841 IOS IP Base without Crypto	ipbase-mz	32	128
	Cisco 1841 IOS IP Base	ipbasek9-mz	32	128
	Cisco 1841 IOS SP Services	spservicesk9-mz	64	128
	Cisco 1841 IOS BB-SPSK9 Feature Set Factory Upgrade for Bundles	spservicesk9-mz	64	128
	Cisco 1841 IOS SPSK9-SPSK9 Feature Set Factory Upgrade for Bundles		64	128
Cisco 1861	Cisco 1861 IOS Advanced Enterprise Services	adventerprisek9-mz	128	256
	Cisco 1861 IOS Advanced IP Services	advipservicesk9-mz		
	Cisco 1861 IOS Enterprise Services	entservicesk9-mz		
	Cisco 1861 IOS IP Voice w/o Crypto	ipvoice-mz		
	Cisco 1861 IOS SP Services	spservicesk9-mz		

## Hardware Supported

Cisco IOS Release 12.4(15)XZ supports the following routers:

- Cisco 1841
- Cisco 1861

For detailed descriptions of new hardware features and which features are supported on each router, see the “[New and Changed Information](#)” section on page 4. For descriptions of existing hardware features and supported modules, see the hardware installation guides, configuration and command reference guides, and additional documents specific to the Cisco 1800 series routers, which are at:

[http://www.cisco.com/en/US/products/ps5853/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps5853/tsd_products_support_series_home.html)

## Determining the Software Version

To determine the version of Cisco IOS software currently running on your Cisco 1800 series router, see *About Cisco IOS Release Notes* located at:

[http://www.cisco.com/en/US/docs/ios/12\\_4/12\\_4x/12\\_4xy15/ReleaseNote.html](http://www.cisco.com/en/US/docs/ios/12_4/12_4x/12_4xy15/ReleaseNote.html).

## Upgrading to a New Software Release

For general information about upgrading to a new software release, see *About Cisco IOS Release Notes* located at:

[http://www.cisco.com/en/US/docs/ios/12\\_4/12\\_4x/12\\_4xy15/ReleaseNote.html](http://www.cisco.com/en/US/docs/ios/12_4/12_4x/12_4xy15/ReleaseNote.html).

## Feature Set Tables

For information about feature set tables, see *About Cisco IOS Release Notes* located at:

[http://www.cisco.com/en/US/docs/ios/12\\_4/12\\_4x/12\\_4xy15/ReleaseNote.html](http://www.cisco.com/en/US/docs/ios/12_4/12_4x/12_4xy15/ReleaseNote.html).

## New and Changed Information

- [New Hardware Features in Cisco IOS Release 12.4\(15\)XZ2](#), page 4
- [New Software Features in Cisco IOS Release 12.4\(15\)XZ2](#), page 4
- [New Features in Release 12.4T](#), page 4

## New Hardware Features in Cisco IOS Release 12.4(15)XZ2

There are no new hardware features in this release.

## New Software Features in Cisco IOS Release 12.4(15)XZ2

There are no new software features in this release.

## New Features in Release 12.4T

For information regarding the features supported in Cisco IOS Release 12.4T, see the *Cross-Platform Release Notes* links at:

[http://www.cisco.com/en/US/products/ps6441/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/ps6441/prod_release_notes_list.html)

# Caveats

For general information on caveats and the bug toolkit, see *About Cisco IOS Release Notes* located at: [http://www.cisco.com/en/US/docs/ios/12\\_4/12\\_4x/12\\_4xy15/ReleaseNote.html](http://www.cisco.com/en/US/docs/ios/12_4/12_4x/12_4xy15/ReleaseNote.html).

This section contains the following caveat information:

- [Open Caveats - Cisco IOS Release 12.4\(15\)XZ2, page 5](#)
- [Resolved Caveats - Cisco IOS Release 12.4\(15\)XZ2, page 5](#)

## Open Caveats - Cisco IOS Release 12.4(15)XZ2

There are no open caveats in this release.

## Resolved Caveats - Cisco IOS Release 12.4(15)XZ2

CSCsr16693

A series of TCP packets may cause a denial of service (DoS) condition on Cisco IOS devices that are configured as Easy VPN servers with the Cisco Tunneling Control Protocol (cTCP) encapsulation feature. Cisco has released free software updates that address this vulnerability. No workarounds are available; however, the IPsec NAT traversal (NAT-T) feature can be used as an alternative.

This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090325-ctcp.shtml>.

Note: The March 25, 2009, Cisco IOS Security Advisory bundled publication includes eight Security Advisories. All of the advisories address vulnerabilities in Cisco IOS Software. Each advisory lists the releases that correct the vulnerability or vulnerabilities in the advisory. The following table lists releases that correct all Cisco IOS Software vulnerabilities that have been published in Cisco Security Advisories on March 25, 2009, or earlier.

[http://www.cisco.com/en/US/products/products\\_security\\_advisories\\_listing.html](http://www.cisco.com/en/US/products/products_security_advisories_listing.html)

CSCsu21828

A series of TCP packets may cause a denial of service (DoS) condition on Cisco IOS devices that are configured as Easy VPN servers with the Cisco Tunneling Control Protocol (cTCP) encapsulation feature. Cisco has released free software updates that address this vulnerability. No workarounds are available; however, the IPsec NAT traversal (NAT-T) feature can be used as an alternative.

This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090325-ctcp.shtml>.

Note: The March 25, 2009, Cisco IOS Security Advisory bundled publication includes eight Security Advisories. All of the advisories address vulnerabilities in Cisco IOS Software. Each advisory lists the releases that correct the vulnerability or vulnerabilities in the advisory. The following table lists releases that correct all Cisco IOS Software vulnerabilities that have been published in Cisco Security Advisories on March 25, 2009, or earlier.

[http://www.cisco.com/en/US/products/products\\_security\\_advisories\\_listing.html](http://www.cisco.com/en/US/products/products_security_advisories_listing.html)

## CSCsv38166

The server side of the Secure Copy (SCP) implementation in Cisco IOS software contains a vulnerability that could allow authenticated users with an attached command-line interface (CLI) view to transfer files to and from a Cisco IOS device that is configured to be an SCP server, regardless of what users are authorized to do, per the CLI view configuration. This vulnerability could allow valid users to retrieve or write to any file on the device's file system, including the device's saved configuration and Cisco IOS image files, even if the CLI view attached to the user does not allow it. This configuration file may include passwords or other sensitive information.

The Cisco IOS SCP server is an optional service that is disabled by default. CLI views are a fundamental component of the Cisco IOS Role-Based CLI Access feature, which is also disabled by default. Devices that are not specifically configured to enable the Cisco IOS SCP server, or that are configured to use it but do not use role-based CLI access, are not affected by this vulnerability.

This vulnerability does not apply to the Cisco IOS SCP client feature.

Cisco has released free software updates that address this vulnerability.

There are no workarounds available for this vulnerability apart from disabling either the SCP server or the CLI view feature if these services are not required by administrators.

This advisory is posted at the following link:

<http://www.cisco.com/warp/public/707/cisco-sa-20090325-scp.shtml>.

## CSCsu11522

A vulnerability exists in the Session Initiation Protocol (SIP) implementation in Cisco IOS software that can be exploited remotely to cause a reload of the Cisco IOS device.

Cisco has released free software updates that address this vulnerability. There are no workarounds available to mitigate the vulnerability apart from disabling SIP, if the Cisco IOS device does not need to run SIP for VoIP services. However, mitigation techniques are available to help limit exposure to the vulnerability.

This advisory is posted at the following link:

<http://www.cisco.com/warp/public/707/cisco-sa-20090325-sip.shtml>.

## CSCsr29468

Cisco IOS software contains a vulnerability in multiple features that could allow an attacker to cause a denial of service (DoS) condition on the affected device. A sequence of specially crafted TCP packets can cause the vulnerable device to reload.

Cisco has released free software updates that address this vulnerability.

Several mitigation strategies are outlined in the workarounds section of this advisory.

This advisory is posted at <http://www.cisco.com/warp/public/707/cisco-sa-20090325-tcp.shtml>

CSCsl23700 HWIC-2SHDSL training loop after release upgrade.

**Symptom** Routers using HWIC-2SHDSL with NIOS Firmware version 2.7 are not able to Synchronize with DSLAM. The following messages are seen in the output of the **<CmdBold> debug hwic-shdsl firmware <noCmdBold>** command.

```
SHDSL0/0/0 FW MSG: DMT[0]: condition GHS_NO_COMMON
```

```
SHDSL0/0/0 FW MSG: DMT[0]: reason ERR_MS_NO_MODE
```

**Conditions** This problem is seen with HWIC-2SHDSL using NIOS Firmware 2.7, HWIC-4SHDSL is not experiencing the problem. The first time the SHDSL is configured on the box synchronization goes fine, as soon as the box is reloaded, SHDSL is unable to synchronize.

**Workaround** A possible workaround is to remove SHDSL controller configuration, save the config and reload the box and add SHDSL configuration line. A more realistic workaround would it be to downgrade IOS Version in order to use a previous NISO Firmware release e.g. NIOS 2.6

**Further Problem Description:** With IOS changes implemented as part of CO mode implementation, initialization of 2.7 NIOS firmware got modified.

The assumption was that after downloading NIOS firmware it takes about 5s for CLI configuration to arrive at NIOS CPU. That changed with CO mode implementation. The CLI config commands arrive about 1.5 to 2s after downloading NIOS firmware.

During this time, clock mode gets initialized.

In the current issue on HWIC-2SHDSL, the clock mode is not getting initialized so we get the NO MODE error.

This issue is not seen on HWIC-4SHDSL because it takes more than 5s for firmware downloads.

CSCso60115 HWIC-2SHDSL connection problems to Alcatel ASAM 7301 UD.

**Symptom** The ATM connection between a HWIC-2SHDSL controller and DSLAM either fails or takes 2-5 minutes to establish. During the failure, we see the following debugs (among others):

```
SHDSL0/0/0 FW MSG: DMT[0]: condition EXCEPTION
```

```
SHDSL0/0/0 FW MSG: DMT[0]: reason FC_NOT_DETECTED
```

**Conditions** Problem occurs in the following configuration:

Using a HWIC-2SHDSL controller with a Cisco Router.

DSLAM: Alcatel ASAM 7301 Ultra Density with SMLT-A linecard.



**Note** This connectivity issue happens only when the cable was plugged out from ATM interface and plugged back in. There is no problem with the connectivity when **shut** and **no shut** are issued on the atm interface.

**Workaround** Replace the Cisco HWIC-2SHDSL with the WIC-1SHDSL controller. With the WIC-1, the ATM connection to the same DSLAM establishes in 20 seconds or less and never fails.

CSCsq52847 Connection establishment failed with the event agent.

**Symptom** Connection establishment failed with the event agent.

**Conditions** Occurs when the Event Gateway is killed and restarted on a Cisco 812 router while running Cisco IOS Release 12.4(19.18)T2.

**Workaround** None.



CSCsq50366 Last digit getting truncated when prefix is set to its max value of 32.

**Symptom** Last digit getting truncated when prefix is configured with a length of 32 under the dial-peer.

**Conditions** When the prefix is configured with a length of 32 under the dial-peer only 31 digits are being sent across and the calls fails as there is no matching dial-peer at the other end. When the prefix is configured for 31 digits, then all the digits are sent correctly and the call is successful.

This is seen in the following call scenario:

1. Configure E1R2 ds0 groups between callgen and UUT:
2. Callgen calls into the UUT using ds0-group1.
3. The UUT has DID configured.
4. The UUT directs the call to ds0-group2 which is connected back to callgen.
5. Callgen has DID configured for the incoming call.
6. Callgen directs the call to ds0-group3 which is connected back to the UUT
7. The uut establishes a VoIP call leg back to callgen.

**Workaround** None.

CSCsr68545 Error %DATACORRUPTION-1-DATAINCONSISTENCY when running ipsla with rtt.

**Symptom** Error message occurs:

```
000302: Jul 24 13:00:13.575 CDT: %DATACORRUPTION-1-DATAINCONSISTENCY: copy error
-Traceback= 0x410FD1A4 0x41119DB0 0x41138324 0x41DE5714
```

**Conditions** IP SLA configured with RTT.

**Workaround** None.

CSCsr27960 Traceback observed after configuring credential under sip-ua.

**Symptom** Traceback observed when configuring credentials CLI under sip-ua.

**Conditions** This happens when user configures credentials CLI with username length more than 32 characters.

**Workaround** None.

CSCso58935 Caller ID still display Barge for point-to-point call between sccp share.

**Symptom** Caller ID still display To Barge for point to point call between two sccp shared line phones after the other party drops out from cBarge conference.

**Workaround** None.

CSCsr14658 CLI Cannot handle Double quotes.

**Symptom** CME 4.3. IOS 12.4.15XZ SP Services. Under telephony-service the following url services was configured:

**http://10.1.1.1 "My service"**

Note the quotes. On the running config you see the above command without the quotes and everything works fine. When you type **wr**, then you again see the same command without the quotes. The issue is that, when you reload the router, the command is there, but it is not accepted and you have to type it again. Also, if you type **url services http://10.1.1.1 My service**, then you get an error of invalid input.

**Conditions** Normal operation.

**Workaround** Use one word and underscore instead of space.

CSCsq48167 CME DN **description** command may allow for open-ended quote delimitation.

**Symptom** The CME **description** command under the ephone-dn potentially allows for the description string to be saved to the router configuration without a trailing quote. This leaves an open-ended delimitation in the configuration for the description string, and will cause the CME GUI to fail to load with an "unterminated string constant" error.

**Conditions** There are two ways that the configuration can get a description with no closing quote:

1. Description is entered with quotes on both sides, and total string length is between 33 and 40 characters.

*<i>Entering</i>*

**Router(config)#ephone-dn 1**

**Router(config-ephone-dn)#description "01234567890123456789012345678912345"**

*<i>Appears as</i>*

**ephone-dn 1**

**description "01234567890123456789012345678912"**

2. Description is entered with quotes only on beginning of string.

*<i>Entering</i>*

**Router(config)#ephone-dn 1**

**Router(config-ephone-dn)#description "test"**

*<i>Appears as</i>*

**ephone-dn 1**

**description "test"**

**Workaround** Enter the description without any quotes via the CLI.

## Additional References

Use this release note with the documents and websites in this release note and the documents listed in the following sections:

- [Release-Specific Documents, page 12](#)
- [Platform-Specific Documents, page 12](#)

## Release-Specific Documents

The following documents are specific to Release 12.4 and apply to Release 12.4(15)XZ.

- [Cross-Platform Release Notes for Cisco IOS Release 12.4T](#)
- [Cisco IOS Software Releases 12.4 Special and Early Deployments](#)
- [Caveats for Cisco IOS Release 12.4\(20\)T](#)

## Platform-Specific Documents

Hardware installation guides, configuration and command reference guides, and additional documents specific to the Cisco 1800 series routers (fixed) are at:

[http://www.cisco.com/en/US/products/ps5853/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps5853/tsd_products_support_series_home.html)

## Cisco IOS Software Documentation Set

The Cisco IOS software documentation set consists of the Cisco IOS configuration guides, Cisco IOS command references, and other supporting documents.

### Documentation Modules

Each module in the Cisco IOS documentation set consists of one or more configuration guides and one or more corresponding command references. Chapters in a configuration guide describe protocols, configuration tasks, and Cisco IOS software functionality, and contain comprehensive configuration examples. Chapters in a command reference provide complete command syntax information. Use each configuration guide with its corresponding command reference. *Cisco IOS Software Documentation* is available in html or pdf form.

Select your release and click the command references, configuration guides, or any other Cisco IOS documentation you need.

## Notices

See the “[Notices](#)” section in *About Cisco IOS Release Notes* located at:

[http://www.cisco.com/en/US/docs/ios/12\\_4/12\\_4x/12\\_4xy15/ReleaseNote.html](http://www.cisco.com/en/US/docs/ios/12_4/12_4x/12_4xy15/ReleaseNote.html)

Use this document in conjunction with the documents listed in the “[Additional References](#)” section.

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