



# Release Notes for the Cisco IE 2000U Series Switches, CGS 2520 Switch, and CG Ethernet Switch Module for Cisco IOS Release 15.0(2)EK1

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Cisco IOS Release 15.0(2)EK1 runs on the Cisco IE 2000U Series Switches, CGS 2520 Switch, and CG Ethernet Switch Module (ESM).

These release notes include important information about Cisco IOS Release 15.0(2)EK1 and any limitations, restrictions, and caveats that apply to the release. Verify that these release notes are correct for your switch:

- If you are installing a new switch, see the Cisco IOS release label on the rear panel of your switch.
- If your switch is on, use the **show version** privileged EXEC command. See the [“Finding the Software Version and Feature Set”](#) section on page 7.
- If you are upgrading to a new release, see the software upgrade filename for the software version. See the [“Deciding Which Files to Use”](#) section on page 7.

For a complete list of Cisco IE 2000U, CGS 2520, and CG ESM switch documentation, see the [“Related Documentation”](#) section on page 14.

You can download the switch software from this site (registered Cisco.com users with a login password): <http://www.cisco.com/cisco/web/download/index.html>

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## New Features in Cisco IOS Release 15.0(2)EK1

Table 1 lists the new features added in this release.

**Table 1**      **New Features in Cisco IOS Release 15.0(2)EK1**

Feature	Platform	Description	Related Documentation
Parallel Redundancy Protocol (PRP)	IE 2000U	<p>PRP allows a data communication network to prevent data transmission failures by providing network nodes two alternate paths for the traffic to reach its destination.</p> <p>Two local area networks (LANs) provide alternate paths for the traffic over independent LAN segments. However, the two LANs must share a similar topology.</p> <p>An IE 2000U operating with PRP has a Gigabit Ethernet or uplink Fast Ethernet port connection to each of the two LANs. The switch sends two packets simultaneously to each LAN through the two different ports to its destination node. When the destination node receives the first packet successfully, it discards the second packet if it also arrives successfully as well. Each packet sent includes an incremented sequence number that helps the destination node distinguish between duplicate packets.</p>	For feature overview and configuration details, see the <a href="#">Parallel Redundancy Protocol Software Configuration Guide for IE 2000U Series Switches</a> .
Small Form-factor Pluggable (SFP) modules with Digital Optical Monitoring (DOM)	IE 2000U, CGS 2520, ESM, CGR 2010	<p>The CGS 2520 switch, CGR 2010 router, and the CG ESM all support SFP modules with DOM, beginning with the 15.0(2)EK1 Release. The DOM feature on an SFP gives the end user the ability to monitor real-time parameters of the SFP, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.</p> <p>See <a href="#">Table 5</a> for the supported SFPs, including SFPs with DOM support.</p>	For information about SFP modules, see your SFP module documentation and the <a href="#">Cisco IE 2000U Hardware Installation Guide</a> , <a href="#">Cisco CGS 2520 Hardware Installation Guide</a> , <a href="#">Cisco Connected Grid Routers 2010 Hardware Installation Guide</a> , or <a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Getting Started Guide</a> .

**Table 1**      **New Features in Cisco IOS Release 15.0(2)EK1 (continued)**

Feature	Platform	Description	Related Documentation
Precision Time Protocol (PTP)	IE 2000U, CGS 2520, ESM	PTP is defined in IEEE-1588 as Precision Clock Synchronization for Networked Measurements and Control Systems, and was developed to synchronize the clocks in packet-based networks that include distributed device clocks of varying precision and stability. PTP is optimal for use in distributed systems because it requires minimal bandwidth and little overhead processing.  This release adds support for Default Profile Mode, Default Profile MIB, and End-to-End Transparent Clock Mode.	For feature overview and configuration details, see <a href="#">Precision Time Protocol Software Configuration Guide for IE 2000U and Connected Grid Switches</a> .
Power over Ethernet plus (PoE+)	IE 2000U, CGS 2520, ESM	PoE+ ports on the following models: <ul style="list-style-type: none"> <li>• Cisco IE 2000U-16TC-GP</li> <li>• Cisco CGS-2520-16S-8PC</li> <li>• CGS-2520-16S-8PC-C models</li> <li>• GRWIC-D-ES-2S-8PC switch module</li> </ul> PoE support includes: <ul style="list-style-type: none"> <li>• Support for IEEE 802.3af-compliant powered devices (up to 15.4 W PoE per port) and support for IEEE 802.3at-compliant powered devices (up to 30 W PoE+ per port).</li> <li>• Support for prestandard Cisco powered devices.</li> <li>• Configurable support for Cisco intelligent power management, including: <ul style="list-style-type: none"> <li>– enhanced power negotiation</li> <li>– power reservation</li> <li>– per-port power policing</li> </ul> </li> </ul>	For feature overview and configuration details, see:  SFP module documentation and the <a href="#">Cisco IE 2000U Hardware Installation Guide</a> , <ul style="list-style-type: none"> <li>• “Power over Ethernet Ports” section in the “Configuring Interfaces” chapter of the <a href="#">CGS 2520 Switch Software Configuration Guide, 12.2(53)EX</a></li> <li>• <a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Software Configuration Guide</a></li> <li>• <a href="#">Cisco CGS 2520 Hardware Installation Guide</a></li> <li>• <a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Getting Started Guide</a>.</li> </ul>
TrustSec	IE 2000U, CGS 2520	The CGS 2520 supports TrustSec 4.0, an intelligent access control solution that enables secure network access, shows who and what is connecting to the network, and mitigates risk by providing centralized controls over the resources that users and devices can access.	For more information, go to <a href="http://www.cisco.com/en/US/netsol/ns1051/index.html">http://www.cisco.com/en/US/netsol/ns1051/index.html</a> .

## Hardware Support

Table 2 through Table 4 summarize the supported IE 2000U, CSG 2520, and CG Ethernet Switch Module models.

All hardware platforms support LAN Base and IP Services software images. Both software images include support for IEEE 1588 PTP.

Table 5 summarizes the SFP modules supported on the IE 2000U, CGS 2520, CGR 2010, and the ESM.

**Table 2 Cisco IE 2000U Models Supported**

Model	Description
IE-2000U-4S-G	4- SFP Fast Ethernet ports and 2- SFP Gigabit Ethernet ports
IE-2000U-4T-G	4- 10/100 BASE-T ports and 2- 10/100/1000 BASE-T ports.
IE-2000U-4TS-G	4- 10/100 BASE-T ports and 2- SFP Gigabit Ethernet ports.
IE-2000U-8TC-G	8- 10/100 BASE-T ports and 2- Gigabit Ethernet dual-purpose ports.
IE-2000U-16TC-G	16- 10/100 BASE-T ports, 2- Gigabit Ethernet dual-purpose ports, and 2- SFP Fast Ethernet ports.
IE-2000U-16TC-G-X	16- 10/100 BASE-T ports, 2- Gigabit Ethernet dual-purpose ports, and 2- SFP Fast Ethernet ports.  This platform has conformal coating.
IE-2000U-16TC-GP	16- 10/100 BASE-T ports, 4- Power over Ethernet (PoE) ports, and 2- Gigabit Ethernet dual-purpose ports.  <b>Note</b> The four PoE ports can operate as PoE, or as PoE+ ports with certain constraints.
PWR-IE50W-AC= PWR-IE65W-PC-AC= PWR-IE65W-PC-DC=	IE 2000U Power supply modules.

**Table 3 Cisco CGS 2520 Models Supported**

Model	Description
CGS-2520-24TC	24- 10/100 BASE-T ports, 2- Gigabit Ethernet dual-purpose uplink ports, and 2- 10/100/1000 BASE-T ports and 2- 100/1000 Small Form-Factor Pluggable (SFP) ports on board.
CGS-2520-16S-8PC	16- Fast Ethernet SFP ports, 8- 10/100BaseTX/PoE ports, and 2- Gigabit Ethernet dual-purpose uplink ports.
PWR-RGD-LOW-DC PWR-RGD-AC-DC	CGS 2520 Power supply modules.

**Table 4** Cisco CG Ethernet Switch Module Models Supported

Model	Description
GRWIC-D-ES-2S-8PC (Copper model)	8x 10/100 Fast Ethernet ports, 1x dual-purpose port (10/100/1000 Base-T copper RJ-45 and 100/1000 SFP fiber), 1x 100/1000 SFP fiber-only port.
GRWIC-D-ES-6S (SFP Fiber model)	4x 100BASE-FX SFP-module ports, 1x dual-purpose port (1x 10/100/1000Base-T copper RJ-45 port and 1x 100/1000 SFP fiber module port), 1x 100/1000 SFP fiber module port.

**Table 5** SFP Models Supported on the IE 2000U, CGS 2520, CGR 2010, and the ESM

Model	Description
Rugged and Industrial SFPs	<ul style="list-style-type: none"> <li>• GLC-SX-MM-RGD</li> <li>• GLC-LX-SM-RGD</li> <li>• GLC-ZX-SM-RGD</li> <li>• GLC-FE-100LX-RGD</li> <li>• GLC-FE-100FX-RGD</li> </ul>
Commercial SFPs	<ul style="list-style-type: none"> <li>• GLC-BX-D with digital optical monitoring (DOM) support</li> <li>• GLC-BX-U with DOM support</li> <li>• GLC-FE-100LX</li> <li>• GLC-FE-100BX-D</li> <li>• GLC-FE-100BX-U</li> <li>• GLC-FE-100FX</li> <li>• GLC-FE-100EX</li> <li>• GLC-FE-100ZX</li> <li>• CWDM SFP with DOM support</li> </ul>
Extended temperature SFPs	<ul style="list-style-type: none"> <li>• SFP-GE-L with DOM support</li> <li>• SFP-GE-S with DOM support</li> <li>• SFP-GE-Z with DOM support</li> <li>• GLC-EX-SMD with DOM support<sup>1</sup></li> </ul>

1. Not supported on CGR 2010, but supported on CGS 2520, ESM, and IE 2000U.



**Note** For additional information about SFP modules, including installation procedures and cable specifications, see the Hardware Installation Guide for the applicable platform as listed in the [“Related Documentation” section on page 14](#).

# System Requirements

This section describes the following system requirements for Cisco IOS Release 15.0(2)EK1:

- [Cisco Configuration Professional, page 6](#)
- [Express Setup, page 6](#)
- [Upgrading to a New Software Release, page 6](#)

## Cisco Configuration Professional

[Table 6](#) lists the minimum software requirements for the Cisco Configuration Professional.

**Table 6** Minimum Software Requirement for Cisco Configuration Professional

Component	Minimum Software Requirement
Cisco Configuration Professional	Version 2.8

## Express Setup

[Table 7](#) lists the minimum hardware requirements for Express Setup. You can find its minimum software requirements summarized under the table.

**Table 7** Express Setup Minimum Hardware Requirements for a PC

Processor Speed	DRAM	Number of Colors	Resolution	Font Size
233 MHz <sup>1</sup>	Hardware <sup>2</sup>	256	1024 x 768	Small

1. We recommend 1 GHz.
2. We recommend 1 GB of DRAM.

### Express Setup Minimum Software Requirements for a PC

- PC with Windows 2000, XP, Vista, or Windows Server 2003
- Web browser (Internet Explorer 6.0, 7.0, or Firefox 1.5, 2.0, 3.0) with JavaScript enabled  
Express Setup verifies the browser version when starting a session, and it does not require a plug-in.
- Straight-through or crossover Category 5 or 6 cable

## Upgrading to a New Software Release

These are the procedures for downloading software. Before downloading software, read these sections for important information:

- [Finding the Software Version and Feature Set, page 7](#)
- [Deciding Which Files to Use, page 7](#)
- [Archiving Software Images, page 8](#)
- [Upgrading a Switch by Using the CLI, page 8](#)

- [Installation Notes, page 9](#)

## Finding the Software Version and Feature Set

The Cisco IOS image is stored as a bin file in a directory that is named with the Cisco IOS release. A subdirectory contains the files needed for web management. The image is stored on the compact flash memory card.

You can use the **show version** privileged EXEC command to see the software version that is running on your switch. The second line of the display shows the version.

You can also use the **dir filesystem:** privileged EXEC command to see the directory names of other software images stored in flash memory. For example, use the **dir flash:** command to display the images in the flash memory.

## Deciding Which Files to Use

The upgrade procedures in these release notes describe how to perform the upgrade by using a combined tar file. This file contains the Cisco IOS image file and the files needed for the embedded device manager. You must use the combined tar file to upgrade the switch through the device manager. To upgrade the switch through the command-line interface (CLI), use the tar file and the **archive download-sw** privileged EXEC command.

[Table 8](#) lists the filenames for this software release.



### Note

If you download the IP services image and plan to use Layer 3 functionality, you must use the Switch Database Management (SDM) routing template. To determine the currently active template, enter the **show sdm prefer** privileged EXEC command. If necessary, enter the **sdm prefer** global configuration command to change the SDM template to a specific template. For example, if the switch uses Layer 3 routing, change the SDM template from the default to the routing template. You must reload the switch for the new template to take effect.

**Table 8** Cisco IOS Software Image Files

Filename	Description
ie2000u-ipserviceslmk9-tar.150-2.EK1	IE 2000U IP services image file, which includes PTP
ie2000u-lanbaselmk9-tar.150-2.EK1	IE 2000U LAN base image file, which includes PTP
cgs2520-ipserviceslmk9-tar.150-2.EK1	CGS 2520 IP services image file, which includes PTP
cgs2520-lanbaselmk9-tar.150-2.EK1	CGS 2520 LAN base image file, which includes PTP
grwicdes-ipserviceslmk9-tar.150-2.EK1	ESM IP services image file, which includes PTP
grwicdes-lanbaselmk9-tar.150-2.EK1	ESM LAN base image file, which includes PTP

## Archiving Software Images

Before upgrading your switch software, make sure that you archive copies of both your current Cisco IOS release and the Cisco IOS release to which you are upgrading. Keep these archived images until you have upgraded all devices in the network to the new Cisco IOS image and verified that the new Cisco IOS image works properly in your network.

Cisco routinely removes old Cisco IOS versions from Cisco.com. See *Product Bulletin 2863* for information:

[http://www.cisco.com/en/US/prod/collateral/iosswrel/ps8802/ps6969/ps1835/prod\\_bulletin0900aecd80281c0e.html](http://www.cisco.com/en/US/prod/collateral/iosswrel/ps8802/ps6969/ps1835/prod_bulletin0900aecd80281c0e.html)

You can copy the bin software image file on the flash memory to the appropriate TFTP directory on a host by using the **copy flash: tftp:** privileged EXEC command.



### Note

Although you can copy any file on the flash memory to the TFTP server, it is time consuming to copy all of the HTML files in the tar file. We recommend that you download the tar file from Cisco.com and archive it on an internal host in your network.

You can also configure the switch as a TFTP server to copy files from one switch to another without using an external TFTP server by using the **tftp-server** global configuration command.

## Upgrading a Switch by Using the CLI

This procedure is for copying the combined tar file to the switch. You copy the file to the switch from a TFTP server and extract the files. You can download an image file and replace or keep the current image.



### Note

Make sure that the compact flash card is in the switch before downloading the software.

To download software, follow these steps:

- Step 1** Use [Table 8 on page 7](#) to identify the file that you want to download.
- Step 2** Download the software image file. If you have a SMARTNet support contract, go to this URL, and log in to download the appropriate files:  
<http://software.cisco.com/download/navigator.html>  
For example, to download the image for a IE 2000U switch, click **Cisco IE 2000U software**. To obtain authorization and to download the cryptographic software files, click **IE 2000U 3DES Cryptographic Software**.
- Step 3** Copy the image to the appropriate TFTP directory on the workstation, and make sure that the TFTP server is properly configured.  
  
For more information, see the “Assigning the Switch IP Address and Default Gateway” chapter in the applicable document listed in [Table 9](#).
- Step 4** Log into the switch through the console port or a Telnet session.
- Step 5** (Optional) Ensure that you have IP connectivity to the TFTP server by entering this privileged EXEC command:

```
Switch# ping tftp-server-address
```

For more information about assigning an IP address and default gateway to the switch, see [Table 9](#).



**Step 6** Download the image file from the TFTP server to the switch.

If you are installing the same version of software that currently exists on the switch, overwrite the current image by entering this privileged EXEC command:

```
Switch# archive download-sw /overwrite /reload
tftp:[[/location]/directory]/image-name.tar
```

- The **/overwrite** option overwrites the software image in flash memory with the downloaded one.
- The **/reload** option reloads the system after downloading the image unless the configuration has been changed and not saved.
- For *//location*, specify the IP address of the TFTP server.
- For */directory/image-name.tar*, specify the directory (optional) and the image to download. Directory and image names are case sensitive.

This example shows how to download an image from a TFTP server at 198.30.20.19 and to overwrite the image on the switch:

```
Switch# archive download-sw /overwrite tftp://198.30.20.19/image-name.tar
```

You can also download the image file from the TFTP server to the switch and keep the current image by replacing the **/overwrite** option with the **/leave-old-sw** option.

## Installation Notes

You can assign IP information to your switch using the methods shown in [Table 9](#).

**Table 9** *Methods for Assigning IP Information*

Method	Platform	Document
Express setup program	IE 2000U	<a href="#">Cisco IE 2000U Switch Getting Started Guide</a>
	CGS 2520	<a href="#">Cisco CGS 2520 Getting Started Guide</a>
	CG ESM	<a href="#">Connected Grid Ethernet Switch Module Interface Card Getting Started Guide</a>
CLI-based setup program	IE 2000U	<a href="#">Cisco IE 2000U Switch Hardware Installation Guide</a>
	CGS 2520	<a href="#">Cisco CGS 2520 Hardware Installation Guide</a>
	CG ESM	<a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Software Configuration Guide</a>
DHCP-based autoconfiguration	IE 2000U	<a href="#">Cisco Connected Grid Switches System Management Software Configuration Guide</a>
	CGS 2520	<a href="#">CGS 2520 Switch Software Configuration Guide</a>
	CG ESM	<a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Software Configuration Guide</a>

**Table 9** *Methods for Assigning IP Information (continued)*

Method	Platform	Document
Manually assigning an IP address	IE 2000U	<a href="#">Cisco Connected Grid Switches System Management Software Configuration Guide</a>
	CGS 2520	<a href="#">CGS 2520 Switch Software Configuration Guide</a>
	CG ESM	<a href="#">Cisco Connected Grid Ethernet Switch Module Interface Card Software Configuration Guide</a>

## Configuring the Device Manager and HTTP Server Interface

We recommend this browser setting to enhance loading speed of the device manager from Microsoft Internet Explorer.

From Microsoft Internet Explorer:

1. Choose **Tools > Internet Options**.
2. Click **Settings** in the “Temporary Internet files” area.
3. From the Settings window, choose **Automatically**.
4. Click **OK**.
5. Click **OK** to exit the Internet Options window.

The HTTP server interface must be enabled to display the device manager. By default, the HTTP server is disabled on the switch. Use the **show running-config** privileged EXEC command to see if the HTTP server is enabled or disabled.

Beginning in privileged EXEC mode, follow these steps to configure the HTTP server interface:

	Command	Purpose
Step 1	<b>configure terminal</b>	Enter global configuration mode.
Step 2	<b>ip http authentication {aaa   enable   local}</b>	Configure the HTTP server interface for the type of authentication that you want to use. <ul style="list-style-type: none"> <li>• <b>aaa</b>—Enables the authentication, authorization, and accounting feature. You must enter the <b>aaa new-model</b> interface configuration command for the <b>aaa</b> keyword to appear.</li> <li>• <b>enable</b>—Enables password, which is the default method of HTTP server user authentication, is used.</li> <li>• <b>local</b>—Uses the local user database, as defined on the Cisco router or access server.</li> </ul>
Step 3	<b>end</b>	Return to privileged EXEC mode.
Step 4	<b>copy running-config startup-config</b>	(Optional) Saves the configuration change to the startup configuration file.
Step 5	<b>show running-config</b>	Verify your entries.

The device manager uses the HTTP protocol (the default is port 80) and the default method of authentication (the enable password) to communicate with the switch through any of its Ethernet ports and to allow switch management from a standard web browser.

If you change the HTTP port, you must include the new port number when you enter the IP address in the browser **Location** or **Address** field (for example, `http://10.1.126.45:184`, where 184 is the new HTTP port number). Be sure to write down the port number through which you are connected. Use care when changing the switch IP information.

If you are *not* using the default method of authentication (that is, **enable password**), you need to configure the HTTP server interface with the method of authentication used on the switch.

Beginning in privileged EXEC mode, follow these steps to configure the HTTP server interface:

	Command	Purpose
Step 1	<code>configure terminal</code>	Enter global configuration mode.
Step 2	<code>ip http authentication {enable   local   tacacs}</code>	Configure the HTTP server interface for the type of authentication that you want to use. <ul style="list-style-type: none"> <li>• <b>enable</b>—Enables password as the default method of HTTP server user authentication.</li> <li>• <b>local</b>—Uses the Local user database, as defined on the Cisco router or access server.</li> <li>• <b>tacacs</b>—Uses the TACACS server.</li> </ul>
Step 3	<code>end</code>	Return to privileged EXEC mode.
Step 4	<code>show running-config</code>	Verify your entries.

## Important Notes

### Guidelines and Limitations

Refer to the “Guidelines and Limitations” section of each chapter within the guides listed in the “[Related Documentation](#)” section on page 14 as well as the highlighted Notes, Warnings, and Cautions.

### POE+ Power Consumption Limit

The global command `power inline consumption default 15400` fails to lock and restrict a PoE+ port's power consumption to 15.4W and the port defaults to the maximum of 30 Watts.

Instead of using the global consumption command, use the interface level consumption command to restrict the power consumption of PoE+ ports.

### FPGA Upgrade for Parallel Redundancy Protocol (PRP) Feature

When upgrading from a previous installed release, use the "tar" image (instead of the .bin image file alone) to perform the upgrade, to also upgrade the Backplane FPGA. The FPGA upgrade is required for the PRP feature.

# Caveats

This section addresses the open caveats in this release and provides information on how to use the [Bug Search Tool](#) to find further details on those caveats. This section includes the following topics:

- [Open Caveats, page 12](#)
- [Accessing Bug Search Tool, page 13](#)

## Open Caveats

- **CSCui17515**  
**Symptom:** The system allows configuration of more than 16 VRFs.  
**Conditions:** After you configure more than 16 VRFs, the system does not display the error message `Max VRF limit (16) reached !!!` and creates the VRF.  
**Workaround:** There is no workaround for this issue.
- **CSCuj84136**  
**Symptom:** The **show power inline** command on the ESM can display incorrect power values for Available/Used.  
**Conditions:** This issue has been observed when ESM PoE ports are connected to Powered Device (PD) simulators such as Sifos simulators.  
**Workaround:** Reload the ESM, or perform a **shut down/no shut down** of the interfaces connected to the Sifos simulator until the used power is zero. Wait for the power negotiation to stabilize every time you turn the interfaces on and off, then shut down all interfaces. The switch should return all power reserved.  
Check the PoE values on individual ports using the **show power inline Fastethernet 0/<1-4> detail** command that lists the actual power allocated and used by that PD.
- **CSCul01182**  
**Symptom:** Redundant PRP packets on the same PRP link are not filtered out by the switch.  
**Conditions:** PRP is a redundancy protocol that allows the same PRP-tagged packet to be sent on two separate PRP-enabled Ethernet switch ports. Upon receiving these two packets, the switch will remove one of them. However, PRP does not allow more than one identical packet on each link. Identical packets (two or more) appearing on the same link will NOT be filtered out.  
**Workaround:** This is a fundamental limitation of PRP duplicate discard and there is no workaround.
- **CSCum46907**  
**Symptom:** In a PTP over PRP configuration, Gi0/1 is not able to read the Gi0/2 phy timestamp.  
**Conditions:** When the PRP channel is configured, PTP traffic will not go to the LAN B port.  
**Workaround:** In this PRP release, because of hardware limitations, PTP packets will not have redundancy (redundancy of PTP packets is not implemented according to the specification). However, because most of the uplink ports need to connect to the grand master clock in some of the network topology, PTP packets are allowed to tunnel through the PRP pair ports.  
Due to the system design, in this release, PRP only supports PTP packets to be tunneled to the PRP LAN A port.

In the network design, you can put a grand master clock in LAN A, which provides the time source for the downlink port slave.

- **CSCum60922**

**Symptom:** Occasionally, when one of the two PRP LAN cables are disconnected (causing a LINK\_DOWN condition) and then reconnected, a small number of packet drops and/or CRC errors may be observed on the PRP LAN link that did not go down. The number of packet drops may be in the 1-4 range, and the number of CRC errors may be in the 1-2 range.

CRC errors and packet drops on the link that was taken down may also occur, but of course these are expected (due to LINK\_DOWN).

**Conditions:** This condition will worsen as the traffic rate increases.

**Workaround:** Do not take the link down. For example, you can add a small Ethernet switch to ensure that both PRP links stay up even in the event of network disturbance.

- **CSCum62419**

**Symptom:** Tracebacks were seen while configuring a backup interface on the ESM.

**Conditions:** Tracebacks were seen while issuing the **default int interface-type interface-number** command on an interface with **switchport backup interface** configured on the GRWIC-D-ES.

**Workaround:** Use the **no switchport backup interface** command instead of the **default int interface-type interface-number** command.

## Resolved Caveats

- **CSCum81770**

**Symptom:** Ping failed and CTS STG hung on lanbase images for Cisco IOS Release 15.0(2)EK.

**Conditions:** Ping failed and CTS STG hung on lanbase images installed on IE 2000U switches when Release 15.0(2)EK was installed.

**Workaround:** This issue is resolved in Cisco IOS Release 15.0(2)EK1.

## Accessing Bug Search Tool

You can use the Bug Search Tool to find information about caveats for this release, including a description of the problems and available workarounds. The Bug Search Tool lists both open and resolved caveats.

To access Bug Search Tool, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To access the Bug Search Tool, enter the following URL:

<https://tools.cisco.com/bugsearch/search>

To access the Bug Search Tool to search on a specific caveat, enter the following URL:

<https://tools.cisco.com/bugsearch/search/<BUGID>>

## Accessing Error Message Decoder

You can look up explanations for console error message strings found in system logs at the following location:

[http://www.cisco.com/en/US/partner/support/tsd\\_most\\_requested\\_tools.html](http://www.cisco.com/en/US/partner/support/tsd_most_requested_tools.html)

## Related Documentation

- Cisco CGS 2520 switch product documentation:  
[www.cisco.com/go/cgs2520](http://www.cisco.com/go/cgs2520)
- Cisco CG ES for the CGR 2010 and other Connected Grid Modules documentation:  
[www.cisco.com/go/cg-modules](http://www.cisco.com/go/cg-modules)
- Cisco CGR 2010 router product documentation:  
[Cisco 2000 Series Connected Grid Routers](#)
- Cisco IE 2000U switch product documentation:  
[Cisco Industrial Ethernet 2000U Series Switches](#)
- Cisco Configuration Professional (CCP) user documentation:  
[http://www.cisco.com/en/US/products/ps9422/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/ps9422/tsd_products_support_series_home.html)

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This document is to be used in conjunction with the documents listed in the “Related Documentation” section.

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