



Release Notes for Cisco 2520 Connected Grid Switch and Ethernet Switch Module for Cisco IOS Release 15.0(2)ED

Last updated: February 2013
Part Number: OL-28226-01

These release notes contain the latest information about using Cisco IOS Release 15.0(2)ED software for the Cisco 2520 Connected Grid Switch and the Ethernet Switch Module (ESM). The ESM provides Layer 2 and Layer 3 switching to the Cisco 2010 Connected Grid Router (CGR 2010) and supports many of the features supported on the Cisco CGS 2520.

This document includes the following new information:

- Overview of new features added in this release. See [New Features in Cisco IOS Release 15.0\(2\)ED, page 2](#).
- Cisco IOS Release 15.0(2)ED resolves open caveats in previous releases. To see details about the open and resolved caveats, see [Caveats, page 7](#).

Features noted in this release note are supported on either the CGS 2520 or ESM and in some cases both platforms, as noted in [New Features in Cisco IOS Release 15.0\(2\)ED](#).

You can download the switch software as a registered Cisco.com user with a login and password at: <http://www.cisco.com/cisco/software/navigator.html>

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New Features in Cisco IOS Release 15.0(2)ED

[Table 1](#) lists the new features added in this release.

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

Feature	Description	Related Documentation
Asymmetric VLAN	<p>The Asymmetric VLAN Traffic Mapping feature for the CGS 2520 provides a method for restricting traffic on VLAN trunk ports. The feature lets you specify a list of VLANs that are allowed to forward traffic on the trunk port in the ingress direction, egress direction, or in both directions.</p> <p>This feature is useful in a utility substation environment where a VLAN trunk port is connected between the CGS 2520 switch and an Intelligent Electronic Device (IED). The trunk port can be configured to allow ingress traffic for a given VLAN, such as GOOSE messages from the IED, and the trunk port can be configured to allow traffic for specific VLAN IDs in the egress direction, allowing the IED to subscribe to GOOSE messages with those VLAN IDs. All other VLAN traffic on the trunk port can be blocked.</p> <p>(CGS 2520 support only)</p>	<p>For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED.</p>
Dying Gasp	<p>Dying-Gasp feature for the CGS 2520 enables the switch to send "dying-gasp" messages through SNMP, syslog, or Ethernet-OAM (Operations Administration and Maintenance) to report the abrupt loss of power to the host platform.</p> <p>Dying Gasp messages are supported through the FE/GE port.</p> <p>(CGS 2520 support only)</p>	<p>For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED.</p>
Precision Time Protocol	<p>Precision Time Protocol (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.</p> <p>(ESM support only).</p>	<p>For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED.</p>

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

Feature	Description	Related Documentation
Smart Call Home	Smart Call Home provides a notification and alert system for particular, configurable system events on the CGS 2520 or ESM module. When a critical system event occurs on the switch, Smart Call Home can automatically generate an alert and notify the appropriate resource; this can include direct paging of a network support engineer, e-mail notification to a network operations center, or XML delivery to a support website.	For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED .
Swap Drive	Using the Connected Grid Swap Drive feature, you can transfer system configuration information from one CGR 2010 router (and installed ESM) to another CGR 2010 and ESM set using a compact flash memory card (or <i>compact flash card</i>) while the routers are operating. This functionality enables you to quickly configure new routers and ESMs with a standard configuration with little or no manual configuration required. (ESM support only). Note For CGR 2010 software requirements to operate with the ESM, see System Requirements .	For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED .
Switch Boot Optimization	Switch Boot Optimization disables memory test, file system check (FSCK), and power-on self-test (POST) to minimize switch boot time. This feature is disabled by default. When this feature is enabled and there is a system crash for some reason, the switch automatically disables the boot optimization feature and saves all the crash information in the first reload. Then the boot loader performs all necessary checks. The boot optimization is reenabled after the system comes up successfully.	For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED .

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

Feature	Description	Related Documentation
VLAN Trunking Protocol (VTP)	<p>VTP is a Layer 2 messaging protocol that maintains VLAN configuration consistency by managing the addition, deletion, and renaming of VLANs on a network-wide basis. VTP minimizes configuration errors and configuration inconsistencies that can cause several problems, such as duplicate VLAN names, incorrect VLAN-type specifications, and security violations.</p> <p>Before you create VLANs, you must decide whether to use VTP in your network. Using VTP, you can make configuration changes centrally on one or more switches and have those changes automatically communicated to all the other switches in the network. Without VTP, you cannot send information about VLANs to other switches.</p>	For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED .
Voice VLAN	<p>The Voice VLAN feature enables access ports to carry IP voice traffic from an IP phone. When the switch is connected to a Cisco IP Phone, the phone sends voice traffic with Layer 3 IP precedence.</p> <p>You can configure an access port with an attached Cisco IP Phone to use one VLAN for voice traffic and another VLAN for data traffic from a device attached to the phone.</p>	For feature overview and configuration details, see the Cisco CGS 2520 Switch and ESM Software Configuration Guide for IOS Release 15.0(2)ED .

System Requirements

[Table 2](#) lists the minimum CGR 2010 release required to allow the router and the specified ESM feature supported in Cisco IOS Release 15.0(2)ED to inter-operate.

Table 2 Minimum Hardware and Software Requirements

ESM Feature	Minimum Software Requirement for CGR 2010
Swap Drive (ESM)	Cisco IOS Release 15.2(2)T for CGR 2010 Note Recommended: Cisco IOS Release 15.3(1)T for CGR 2010

Installation Notes

You can assign IP information to your switch by using these methods:

- The Express Setup program, as described in the *Cisco CGS 2520 Getting Started Guide*.
- The CLI-based setup program, as described in the *Cisco CGS 2520 Hardware Installation Guide*.
- The DHCP-based auto-configuration, as described in the *Cisco CGS 2520 Software Configuration Guide*.
- Manually assigning an IP address, as described in the *Cisco CGS 2520 Software Configuration Guide*.

For links to these documents, see [Related Documentation](#).

Important Notes

Guidelines and Limitations

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

Caveats

This section addresses the open caveats for Cisco IOS 15.0(2)ED for the Connected Grid 2000 Series switches only; and, provides information on how to use the [Bug Toolkit](#) to find further details on those caveats.

For details on all open and resolved issues for other cross-platform systems supported by Cisco IOS 15.0(2), refer to the cross-platform Release Notes for Cisco IOS release 15.0(2)SE at:

http://www.cisco.com/en/US/docs/switches/lan/catalyst3750/software/release/15.0_2_se/release/notes/OL25301.html

This section includes the following topics:

- [Open Caveats, page 7](#)
- [Accessing Bug Toolkit, page 8](#)

Open Caveats

- **CSCto48731**–PTP blocked ports might mistakenly display as “Faulty” rather than the expected state of “Passive.”

Workaround: There is no workaround.

- **CSCub09046**–PTP does not work on the CGS 2520 or Ethernet Switch Module (ESM) when you change the profile to forwarding mode.

Workaround: There is no workaround.

- **CSCub48957**–When Spanning Tree Protocol (STP) is active on a VLAN, a blocked PTP port on CGS 2520 or ESM might mistakenly display as the "PTP Master" rather than the expected state of "Passive" or "Faulty". The CGS2520 and ESM in the network were configured as the boundary clock.

Workaround: There is no workaround.

- **CSCub88010**–In some cases when the VLAN Trunking protocol (VTP) is in use on the CGS 2520 and ESM, a client can synchronize with a server when that server password is a subset of the client password, such as the client password is *abcabc*, and the server password: *abc*. However, when you use a client password such as *xyz* and a server password such as *abc*, no synchronization occurs. In this case, the two passwords are completely different.

Workaround: Do not use common strings within the client and server passwords if you do not want them to synchronize.

- **CSCuc20233**–When updating the VTP to version 3 from either version 1 or 2, an incorrect message displays to the console as follows:

```
cgs2520(config)# vtp ver 3
cgs2520(config)#
*Nov _1 12:02:53.283: %SW_VLAN-6-OLD_CONFIG_FILE_READ: Old version 2 VLAN
configuration file detected and read OK. _
Version 3_files will be written in the future.
```

Workaround: There is no workaround; however, there is no impact to the operation of the switch.

- **CSCuc46577**—In some cases, when you reboot the CGS 2520 switch or ESM or enter either the **shutdown** or **no shutdown** command, HEX traces display to the console. This problem might not occur when few or no VLANs are configured on the switch.
Workaround: There is no workaround.
- **CSCuc82098**—When you insert or remove a SFP from the CGS 2520 or a CGR 2010 with an Ethernet Switch Module installed, the software does not generate a Call Home message for the event.
Workaround: There is no workaround.
- **CSCue26160**—When PTP is configured in transparent clock mode on the ESM and then PTP is disabled using the **no PTP enable** command on one of the ESM interfaces, issuing the **write memory** command and rebooting the ESM causes the PTP configuration to be lost.
Workaround: There is no workaround.

Accessing Bug Toolkit

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



Note

For this release, only open caveats are listed because it is the first release.

To access Bug Toolkit, you need the following items:

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

To use the Bug Toolkit, follow these steps:

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- Step 1** To access the Bug Toolkit, go to the following link:
<http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs>
- Step 2** Log in with your Cisco.com user ID and password.
- Step 3** To look for information about a specific problem, enter the bug ID number in the **Search for bug ID** field and click **Go**.
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Related Documentation

Find Cisco CGS 2520 switch product documentation at:

www.cisco.com/go/cgs2520

Find Cisco CGR 2010 ESM and other Connected Grid Modules documentation at:

www.cisco.com/go/cg-modules

Find Cisco CGR 2010 router product documentation at:

[Cisco 2000 Series Connected Grid Routers](#)

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>

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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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