Release Notes for the 4-MB Catalyst 2900 Series XL Cisco IOS Release 11.2(8.6)SA6

September 22, 2000

Cisco IOS Release 11.2(8.6)SA6 runs on 4-MB Catalyst 2900 series XL switches. For 8-MB Catalyst 2900 series XL and Catalyst 3500 series XL switches, you should upgrade to Cisco IOS Release 12.0(5.1)XP.

These release notes include important information about Cisco IOS Release 11.2(8.6)SA6 and any limitations, restrictions, and caveats that apply to it, as well as any resolved caveats or new features since IOS Release 11.2(8.1)SA6. See the "Related Documentation" section on page 13 for the complete list of Catalyst 2900 XL documentation.

This IOS release is part of a special release of Cisco IOS software that is not released on the same 8-week maintenance cycle that is used for other platforms. As maintenance releases and future IOS releases become available, they will be posted to CCO in the Cisco IOS software area.

These release notes apply to the Cisco IOS Release 11.2(8.6)SA6 original edition software for 4-MB switches.

Contents

This document has the following sections:

CISCO SYSTEMS

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Modifications Since Release 11.2(8.1)SA6

This section describes new features and caveats that have been resolved since IOS Release 11.2(8.1)SA6.

- LED indications for power-on self-test (POST) failures are now different than in IOS Release 11.2(8.1)SA6. If a port fails a test, the port LED and the system LED turn amber and remain amber. In previous releases, only LEDs of failed linked ports remained amber.

- The CLI **show post** command has been added. You can use this command to determine if a switch or port has passed POST.

- When a 4-MB Catalyst 2900 XL switch is added to a cluster, reloading the switch by a soft reset or power recycling no longer brings down the switch. (CSCdm94877)

- When a port is changed from a multi-VLAN port to an access port, there is no longer a possible loss of connectivity. (CSCdm72514)

- The privileged EXEC mode **config clock summer-time recurring** command no longer resets the switch. (CSCdm94936)

- When using the GigaStack GBIC with a 3500 XL switch or 2900 XL modular switch and IOS Release 11.2(8.1)SA6, you could experience a problem with traffic flow in one direction when you insert a cable. This potential problem has been resolved. (CSCdm40538)

- The **configure overwrite-network** command no longer overwrites the configuration file with gibberish. (CSCdm24149)

- When upgrading a switch from the CVSM System page, the switch no longer renames the existing filename when **Retain Current IOS Image File Name** field is selected. (CSCdm32685)

- All GBIC ports in a Gigastack are now able to transmit and receive packets after a reset. (CSCdp40480)

- Unpredictable delays no longer occur during STP root election in redundant networks. (CSCdp45829)

- When Cisco Group Management Protocol (CGMP) is enabled, the Catalyst 2900 XL and Catalyst 3500 XL switches now correctly forward IGMP host inquiries. When CGMP is disabled, ports are no longer flooded. (CSCdp24818, CSCdp20721)

Important Notes

This section describes important information related to IOS Release 11.2(8.6)SA6.

Configuring Microsoft Internet Explorer

The instructions in the *Quick Start: Catalyst 2900 Series XL Cabling and Setup* explain the basic configuration for Internet Explorer 4.01. To use Cluster Management or Switch Network View, you need to complete the browser configuration as described in the *Cisco IOS Desktop Switching Software Configuration Guide*.

Microsoft Internet Explorer 5.0 has been added to the list of browsers that support Cisco Visual Switch Manager (CVSM), Cluster Management, and Switch Network View. Follow these steps to configure Microsoft Internet Explorer 5.0 for use with these products:

Step 1   Start Internet Explorer 5.0.

Step 2   From the menu bar, select **Tools > Internet Options**.

Step 3   In the Internet Options window, click **Security**.

Step 4   Select the **Trusted Sites** icon, and click **Sites...**.

Step 5   Deselect the **Require server verification** checkbox, and click **Add**.

Step 6   Add the switches that you want to manage by entering their URLs in the **Add this web site to the zone** field. A URL is the switch IP address preceded by **http://**.

Step 7   After you have finished entering the URLs for your switches, click **OK**.

Step 8   While still in the Security tab of Internet Options, click **Custom Level...**.

Step 9   In the **Security Settings** dialog box, scroll down to the **Java > Java permissions** section.

Step 10   Select **Custom**. This enables the **Java Custom Settings** button.

Step 11   Click **Java Custom Settings**, and then select **Edit Permissions**.

Step 12   Under Run Unsigned Content, click **Enable**, and click **OK**.

Step 13   Click OK to close the **Security Settings** dialog box.

Hardware and Supporting Software

Table 1 lists the 4-MB switches supported by the original edition software of this IOS release. Table 2 lists the Catalyst 2900 series XL modules and their required IOS releases.

Note   Original edition software is Enterprise Edition Software that runs only on the 4-MB switches listed in Table 1. This software does not support TACACS+, STP UplinkFast, or NTP.

Table 1   4-MB Catalyst 2900 Series XL Switches with Original Edition Software

Model	Description	Number of VLANs	Original Edition Software?	Command Capable?
WS-C2908-XL	8 autosensing 10/100 ports	64	Yes	No
WS-C2924-XL	24 autosensing 10/100 ports	64	Yes	No
WS-C2924C-XL	22 autosensing 10/100 ports and 2 100BaseFX ports	64	Yes	No
WS-C2916M-XL	16 autosensing 10/100 ports and 2 high-speed expansion slots	64	Yes	No

Table 2 **Catalyst 2900 Series XL Modules**

Model	Description	Minimum Release Required	VLAN Trunking Ports?
WS-X2972-XL	1 ATM 155 SM-LR fiber port	IOS Release 11.2(8)SA5	Yes
WS-X2971-XL	1 ATM 155 SM-MR fiber port	IOS Release 11.2(8)SA5	Yes
WS-X2961-XL	1 ATM 155 MM fiber port	IOS Release 11.2(8)SA5	Yes
WS-X2951-XL	1 ATM 155 UTP port	IOS Release 11.2(8)SA5	Yes
WS-X2931-XL	1 1000BaseX port	IOS Release 11.2(8)SA5	Yes
WS-X2924-XL-V	4 100BaseFX ports	IOS Release 11.2(8)SA4	Yes, with minimum release of 11.2(8)SA5
WS-X2922-XL-V	2 100BaseFX ports	IOS Release 11.2(8)SA4	Yes, with minimum release of 11.2(8)SA5
WS-X2914-XL-V	4 autosensing 10/100 UTP ports	IOS Release 11.2(8)SA4	Yes, with minimum release of 11.2(8)SA5
WS-X2922-XL	2 100BaseFX ports	IOS Release 11.2(8)SA	No
WS-X2914-XL	4 autosensing 10/100 UTP ports	IOS Release 11.2(8)SA	No

Minimum IOS Release for Major Features

Table 3 lists the minimum IOS release required for the major features of the Catalyst 2900 XL 4-MB switches.

Table 3 **Major Catalyst 2900 XL Features and the Minimum IOS Release that Supports Them**

Feature	Minimum Release Required
Cluster Management	IOS Release 11.2(8)SA6
Catalyst 2900 series XL 1000BaseX modules	IOS Release 11.2(8)SA5
Catalyst 2900 series XL ATM modules	IOS Release 11.2(8)SA5
VLAN Management Policy Server (VMPS)	IOS Release 11.2(8)SA4
8192 MAC addresses on modular switches	IOS Release 11.2(8)SA4
Switch Network View stack management	IOS Release 11.2(8)SA3
Inter-Switch Link (ISL) trunking[1]	IOS Release 11.2(8)SA4
IEEE 802.1Q trunking[1]	IOS Release 11.2(8)SA4
Web-based switch management	IOS Release 11.2(8)SA
Fast EtherChannel port groups	IOS Release 11.2(8)SA

1. Supported only on 4 MB switches with trunking-capable modules:
    WS-X2914-XL-V, WS-X2922-XL-V, WS-X2924-XL-V, WS-X2931-XL, or WS-X2932-XL.

Limitations and Restrictions

This section should be reviewed before you begin working with the switches. Some features might not work as documented, and some features could be affected by recent changes to the switch hardware or software.

Connecting to the 600W Cisco Redundant Power System

The following restrictions apply to using the 600W Cisco Redundant Power System (RPS) with a Catalyst 2900 XL switch:

- Do not connect a switch power cord to an AC outlet if the switch is also connected to a powered-up RPS.

- The switches *do not* support the fully-redundant configuration described in the *Cisco RPS Hardware Installation Guide*. The redundant with reboot configuration is not recommended with Catalyst 2900 XL switches.

The Cisco RPS can provide a quasi-redundant power source for four external devices that use up to 150W DC each. You can use a one-to-one cable (one connector at each cable end) to connect four external devices to the four DC output power modules. The power source is quasi-redundant because there are two AC input power modules for the Cisco RPS and one DC output power module for each external device. The AC input to the Cisco RPS is fully redundant, but the DC output to the external devices is not.

Hot-Swapping Not Supported for ATM and Gigabit Ethernet Modules

A Catalyst 2900 XL switch must be turned off before you can insert one of the following modules:

- Catalyst 2900 series XL 1000BaseX modules
- Catalyst 2900 series XL ATM modules

Port Configuration Conflicts

Certain combinations of port features create configuration conflicts (see Table 4). For example, the network port floods all unknown unicast and multicast packets to a port; therefore, port security, which limits traffic on a port, cannot be enabled on the network port. If you try to enable incompatible features, CVSM issues a warning message and prevents you from making the change. Reload the page to refresh CVSM. In Table 4, *No* means that the two referenced features are not compatible.

Table 4   Port Configuration Conflicts

	ATM Port[1]	Port Group	Port Security	Monitor Port	Multi-VLAN Port	Network Port[2]	Connect to Cluster?
ATM port	–	No	No	No	No	No	Yes
Port group	No	–	No	No	Yes	Yes	Yes
Port security	No	No	–	No	No	No	Yes
Monitor port	No	No	No	–	No	No	Yes
Multi-VLAN port	No	Yes	No	No	–	Yes	Yes
Network port	No	Yes (only source-based group)	No	No	Yes	–	No
Connect to cluster	Yes	Yes	Yes	Yes	Yes	No	–

1. Catalyst 2900 series XL switches only

2. A network port cannot connect cluster members to the command switch.

IEEE 802.1Q Configuration Considerations

IEEE 802.Q trunks impose some limitations on the trunking strategy for a network. The following restrictions apply to IEEE 802.1Q trunks:

- Make sure the native VLAN for an IEEE 802.1Q trunk is the same on both ends of the trunk link. If the native VLAN on one end of the trunk is different from the native VLAN on the other end, spanning-tree loops might result.

- Disabling STP on the native VLAN of an IEEE 802.1Q trunk without disabling STP on every VLAN in the network can potentially cause STP loops. We recommend that you either leave STP enabled on the native VLAN of an IEEE 802.1Q trunk or disable STP on every VLAN in the network. Make sure your network is loop-free before disabling STP.

Spanning-Tree Maximum Age Command

The range of seconds for the **span-tree max-age** command is now 6 to 200 seconds. If you use this command in a previous release to set a value greater than this new range and then upgrade your software to IOS Release 11.2(8.1)SA6 or later, the switch sets this value to the default: 20 seconds for IEEE STP, 15 seconds for DEC STP, and 10 seconds for IBM STP.

Compatibility with the CiscoWorks2000 RME Suite

When using the Software Image Management (SWIM) application in the Resource Manager Essentials (RME) suite of CiscoWorks2000 product family to perform automated system software and boot loader upgrades, Catalyst 2900 series XL switches require IOS Release ll.2(8)SA4 or later and RME version 2.1 or 2.2.

Upgrading to a New Software Release

This section describes the procedure for upgrading your switch software by using the IOS command-line interface (CLI).

If you are running IOS Release 11.2(8)SA3 or later, we recommend that you upgrade the switch by using the web-based CVSM. Instructions for upgrading through CVSM are in the *Catalyst 2900 Series XL Installation and Configuration Guide*, or, for this IOS release, the *Cisco IOS Desktop Switching Software Configuration Guide*.

> **Note** You cannot use the web-based interface to upgrade a switch running IOS Release 11.2(8)SA2 or previous releases. Use the CLI to perform the upgrade in such cases.

The CLI upgrade procedure consists of the following major steps:

Step 1 Downloading the combined .tar file from CCO. This file contains the IOS image and the HTML files. The **tar** command extracts the IOS image and the HTML files from the combined .tar file during the TFTP copy to the switch.

Step 2 If necessary, downloading the TFTP server application to copy the switch software from your PC to the switch.

Step 3 Using the CLI or CVSM to upgrade your switch to the new software.

Which Files to Use

Review Table 5 and Table 6 before you download the software. Table 5 describes the file extensions and what they mean for the upgrade procedure. In general, it is easier to upgrade the switch software by using a combined .tar file that contains the HTML files and the IOS image. The upgrade procedures in these release notes describe how to use a combined .tar file, and you must use a combined .tar file to upgrade a switch through the switch HTML interfaces.

Table 6 lists the file names for the 4-MB original edition software. Original edition software is Enterprise Edition Software that runs on the following 4-MB switch models: WS-C2908-XL, WS-C2924-XL, WS-C2924C-XL, or WS-C2916M-XL. Original edition software does not support TACACS+, STP UplinkFast, or NTP. This software enables the switch to act as a cluster member switch only, not a commander switch.

Table 5   Possible Extensions for IOS Software Files

Extension	Description
.tar	A compacted file from which you can extract files by using the **tar** command. There are two types of .tar files: • A *combined .tar* file that contains both the IOS image file and the HTML files. You can upgrade the switch software with this file from the CLI or from the CVSM System page. • An *HTML .tar* file that has the letters *HTML* in its name and contains just the HTML files for an IOS release. You can upgrade the switch software from the CLI with this HTML file and the IOS image file.
.bin	The IOS image file that you can copy to the switch through TFTP.

Table 6   Catalyst 2900 Series XL Software Files

Filename	Description	CCO Location [1]
c2900XL-hs-mz-112.8.6-SA6.bin	Original edition IOS image-only file	Registered and public
c2900XL-hs-mz-112.8.6-SA6.tar	Original edition IOS image and HTML files	Registered and public

1. Software files are available through both a registered site, for which you must register to have access, and a public site for which there are no restrictions.

Downloading the New Software

Follow these steps to download a new version of IOS 11.2(8.6)SA6 software and, if necessary, the TFTP server application.

Step 1   Use Table 5 to Table 6 to identify the files that you want to download.

> **Note**   We recommend that you download the combined .tar file that contains the image file and the HTML files. The procedures in these release notes are for upgrading a switch by using a combined .tar file, and the web-based CVSM interface is designed to upgrade a switch by using this combined file.

Step 2   Download files from the following locations:

- Registered users:

    Enter the following URL in your browser Go To or Location field:

    http://www.cisco.com/cgi-bin/tablebuild.pl/cat2900XL

- Nonregistered users:

    http://www.cisco.com/pcgi-bin/tablebuild.pl/cat2900XL

Step 3   Download the IOS file or files.

Step 4   Download the TFTP server from this URL, if necessary. The readme.txt file describes how to download the TFTP server.

After you have downloaded the correct file to your PC or workstation, you can use the CLI to perform a TFTP transfer of the file or files to the switch.

Upgrading 4-MB Catalyst 2900 Series XL Switches

This procedure is for upgrading the 4-MB switches that run IOS Release 11.2(8.2)SA6 original edition software. The 4-MB models that run the original edition software are WS-C2908-XL, WS-C2924-XL, WS-C2924C-XL, and WS-C2916M-XL. You upgrade the switches by extracting the IOS image file and the HTML files from a combined .tar file. You copy the files to the switch from a TFTP server and extract the files by entering the **tar** command.

Note If you want to copy the IOS image file or HTML files separately to the switch, follow the upgrade procedure in the release notes that came with your switch, or refer to CCO for the Catalyst 2900 series XL release notes for IOS Release 11.2(8)SA4.

If you are unsure whether your switch has 4 MB or 8 MB of memory, you can verify memory capacity at Step 4.

Follow these steps to upgrade the switch software by using the **tar** command and a TFTP transfer:

Step 1 If your PC or workstation cannot act as a TFTP server, copy the file to a TFTP server to which you have access.

Step 2 Access the CLI by starting a Telnet session or by connecting to the console port via the RS-232 connector.

To start a Telnet session on your PC or workstation, enter the following command:

```
server% telnet switch_ip_address
```

Step 3 Enter privileged EXEC mode:

```
switch> enable
switch#
```

Step 4 Confirm that you have a 4-MB switch:

```
switch# show version
Cisco Internetwork Operating System Software
IOS (tm) C2900XL Software (C2900XL-HS-M), Version 11.2(0.0.65)SA2,
Copyright (c) 1986-1999 by cisco Systems, Inc.
Compiled Fri 09-Apr-98 13:55 by jchristy
Image text-base: 0x00003000, data-base: 0x0020C740

ROM: Bootstrap program is C2900XL boot loader

pacifica-165 uptime is 1 day, 20 hours, 5 minutes
System restarted by reload
System image file is "flash:c2900XL-hs-mz-112.0.0.65-SA6.bin", booted via

cisco WS-C2924C-XL (PowerPC403GA) processor (revision 0x11) with 4096K/640K bytes of
memory.
Processor board ID 0x09, with hardware revision 0x00
```

Step 5 Display the name of the current (default) image file. The following example shows the current name in italic:

```
switch# show boot
BOOT path-list:     flash:current_image.bin
Config file:        flash:config.text
Enable Break:       1
Manual Boot:        no
HELPER path-list:
NVRAM/Config file
buffer size: 32768
```

Step 6 If there is no file defined in the BOOT path-list, enter **dir flash:** to display the contents of Flash memory. The file named c2900XL-h-mz_*current_version* is your current image file.

Step 7 Using the name of the combined .tar file that you downloaded, rename the current image file to that name, and replace the .tar extension with a .bin extension. The current image file name is then the same as the downloaded file name but with a .bin extension. This step does not affect the operation of the switch.

```
switch# rename flash:current_image.bin flash:new_image.bin
Source filename [current_image]?
Destination filename [new_image]?
```

For example:

```
switch# rename flash:c2900XL-hs-mz-112.8-SA4.bin flash:c2900XL-hs-mz-112.8.6-SA6.bin
Source filename [c2900XL-hs-mz-112.8-SA6.bin]?
Destination filename [c2900XL-hs-mz-112.8.6-SA6.bin]?
switch#
```

Step 8 Display the contents of Flash memory to verify the renaming of the file:

```
switch# dir flash:
Directory of flash:
-rwx      910426   Mar 06 1993 23:47:28  new_image.bin
-rwx       80971   Sep 14 1998 03:10:38  c2900XL-diag-mz-112.0.0.11-SA2
-rwx        4800   Mar 01 1993 00:04:14  html
-rwx         159   Jan 01 1970 00:00:34  env_vars
-rwx        1121   Mar 01 1993 18:46:01  config.text
```

Step 9 If a file starting with the character string *c2900XL-diag-mz* appears in the Flash directory, you should remove it. This diagnostics file has a name in the following format: *c2900XL-diag-mz-version_name*. The string *version_name* depends on the switch and software you are running.

Display the diagnostics file:

```
switch# dir flash:c2900XL-diag-mz*
Directory of flash:
-rwx     80971   Sep 14 1998 03:10:38  c2900XL-diag-mz-112.0.0.11-SA2
```

Delete the diagnostics file:

```
Switch# delete flash:c2900XL-diag-mz-112.0.0.11-SA2
Delete filename [c2900XL-diag-mz-112.0.0.11-SA2]?
Delete flash:c2900XL-diag-mz-112.0.0.11-SA2? [confirm]
Switch#
```

Step 10 Enter global configuration mode:

```
switch# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
```

Step 11 Disable access to the switch HTML pages:

```
switch(config)# no IP http server
```

Step 12 Change the name of the default image file:

```
switch(config)# boot system flash:new_image.bin
```

Step 13 Return to privileged EXEC mode:

```
switch(config)# end
```

Step 14   Verify that the name of the default image file is correct:

```
switch# show boot
BOOT path-list:    flash:new_image
Config file:       flash:config.text
Enable Break:      1
Manual Boot:       no
HELPER path-list:
NVRAM/Config file
buffer size: 32768
```

Step 15   Remove the CVSM HTML files:

```
switch# delete flash:html/*
```

Press **Enter** to confirm the deletion of each file. Do not press any other keys during this process.

Step 16   If you are running IOS Release 11.2(8)SA3 or later, remove the files in the Snmp directory:

```
switch# delete flash:html/Snmp/*
```

Make sure the *S* in *Snmp* is uppercase.

Press **Ente**r to confirm the deletion of each file. Do not press any other keys during this process.

Step 17   If you are running IOS Release 11.2(8)SA2 or previous releases, create a directory on the switch Flash memory to be used for the HTML files:

```
switch# mkdir flash:html/Snmp
```

Make sure the *S* in *Snmp* is uppercase.

⚠️
Caution   In the following step, the **tar** command copies to the switch the combined .tar file that contains both the image and the HTML files. You do not need to copy an HTML .tar file in this procedure.

Step 18   Enter the following command to copy the new image and HTML files to the switch Flash memory:

```
switch# tar /x tftp://server_ip_address//path/filename.tar flash:
Loading /path/filename.tar from server_ip_address (via VLAN1):!)
extracting info (110 bytes)
extracting c2900XL-c3h2s-mz-112.0.66-SA6.bin (1271095 bytes)!!!!!!!!!!!!!!!!!!!!!!
html/ (directory)
extracting html/Detective.html.gz (1134 bytes)!
extracting html/ieGraph.html.gz (553 bytes)
extracting html/DrawGraph.html.gz (760 bytes)!
. . .
```

Depending on the TFTP server being used, you might need to enter only one slash (/) after the *server_ip_address* in the **tar** command.

Step 19   Enter global configuration **mode:**

```
switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
```

Step 20   Re-enable access to the switch HTTP pages:

```
switch(config)# IP http server
```

Step 21   Return to privileged EXEC mode:

```
switch(config)# end
```

Step 22 Reload the new software with the following command:

```
switch# reload
System configuration has been modified. Save? [yes/no]: y
Proceed with reload? [confirm]
```

Step 23 Press **Return** to confirm the reload.

Your Telnet session ends when the switch resets.

Step 24 After the switch reboots, you can use Telnet to go back into the switch and enter the **show version** command in privileged EXEC mode to verify the upgrade procedure.

Current Caveats

This section describes possible unexpected activity by IOS Release 11.2(8.6)SA6.

- When you try to access a switch by entering the IP address in the location field while using CVSM, the switch displays the Cisco Access page for the new switch. However, you cannot access CVSM for the new switch from this page. The switch refreshes the Cisco Access page without displaying the switch home page.

  The workaround is to start a new browser session and enter the IP address of the new switch in the Location field of the new browser session. (CSCdm27401)

- If you use Telnet or a browser to access a member switch without an IP address from the CVSM CDP page, the switch starts a session with the command switch.

  The workaround for Telnet is to first display the cluster-member number by entering the privileged EXEC command **show cluster member**. Note the number of the member you want to access, and then Telnet to the switch by entering the following command: **rcommand** *switch_number*.

  The workaround for the browser is to start Cluster Management from the switch home page and start Cluster Manager. Right-click on the chassis of the switch that you want to access, and select **Switch Manager**. (CSCdm34868)

- The Device Report and Bandwidth Graph menu items for candidate switches without IP addresses do not work.

  The workaround is to add candidates to the cluster and then right-click the device and select **Device Report** or **Bandwidth Graph** from the pop-up menu. (CSCdm31724)

- The Link Graph between members and non-members does not work.

  The workaround is to display the Device Report for the member switch, select **Port Information** from the drop-down menu in the right corner of the page, and click the appropriate port. Click **Graph**. (CSCdm32226)

- Device reports and graphs give "SNMP Unavailable" messages.

  First make sure that the switch is reachable via the network and that the SNMP agent is enabled. Also verify that you are using the correct community string. There should be only one read-only SNMP community string. If you change the community string while using cluster manager or CVSM, you must reload your browser to display the changes. (CSCdm32367)

- Links between members sometimes do not display in Cluster Builder or Cluster View.

  The workaround is to display the Device Links Report from the Cluster Builder window. (CSCdm27668)

- In Internet Explorer 5.0, the tab key does not work properly. It does not highlight the editable fields as it should.

  Use the mouse to click on the field, or use Netscape 4.5, Netscape 4.5.1, or Internet Explorer 4.01. (CSCdm24761)

- If you enter the interface configuration mode **no ip address** command to remove the IP address from a member switch, it disables the switch IP protocol stack.

  The workaround is to enter the Exec mode **clear ip address vlan 1** command instead. (CSCdm39373)

- Network Address Translation (NAT) commands are added to the configuration file of a command switch when a cluster is created.

  No workaround is necessary, but the commands should not be removed. (CSCdm39380)

Related Documentation

The product documentation for the Catalyst 2900 XL switches and modules is as follows:

Catalyst 2900 Series XL Installation Guide

Quick Start: Catalyst 2900 Series XL Cabling and Setup

Cisco IOS Desktop Switching Enterprise Edition Software Configuration Guide

Cisco IOS Desktop Switching Software Configuration Guide

Cisco IOS Desktop Command Reference (online only)

Catalyst 2900 Series XL Modules Installation Guide

Catalyst 2900 Series XL Gigabit Ethernet Module Installation Guide

Release Notes for the Catalyst 2900 Series XL Modules

Catalyst 2900 Series XL ATM Modules Installation and Configuration Guide

Release Notes for the Catalyst 2900 Series XL ATM Modules

Catalyst GigaStack Gigabit Interface Converter Installation Guide

Release Notes for Catalyst GigaStack Gigabit Interface Converter

Cisco Connection Online

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CCO serves a wide variety of users through two interfaces that are updated and enhanced simultaneously: a character-based version and a multimedia version that resides on the World Wide Web (WWW). The character-based CCO supports Zmodem, Kermit, Xmodem, FTP, and Internet e-mail, and it is excellent for quick access to information over lower bandwidths. The WWW version of CCO provides richly formatted documents with photographs, figures, graphics, and video, as well as hyperlinks to related information.

You can access CCO in the following ways:

- WWW: http://www.cisco.com

- WWW: http://www-europe.cisco.com

- WWW: http://www-china.cisco.com

- Telnet: cco.cisco.com

- Modem: From North America, 408 526-8070; from Europe, 33 1 64 46 40 82. Use the following terminal settings: VT100 emulation; databits: 8; parity: none; stop bits: 1; and connection rates up to 28.8 kbps.

For a copy of CCO's Frequently Asked Questions (FAQ), contact cco-help@cisco.com. For additional information, contact cco-team@cisco.com.

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Documentation CD-ROM

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