



Text Part Number: OL-0135-01

Release Notes for Cisco IOS Release 11.2(8.1)SA4

February 3, 1999

Cisco IOS release 11.2(8.1)SA4 resolves a defect that affected Catalyst 2900 series XL switches. A limited number of switches were shipped with overlapping MAC address ranges, which can result in a loss of network connectivity. The following model numbers were affected:

- WS-C2912-XL-A
- WS-C2912-XL-EN
- WS-C2924-XL-A
- WS-C2924-XL-EN
- WS-C2924C-XL-A
- WS-C2924C-XL-EN
- WS-C2924M-XL-A
- WS-C2924M-XL-EN
- WS-C2912MF-XL

Corporate Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA

Copyright © 1998
Cisco Systems, Inc.
All rights reserved.

The serial numbers of the switches that could be affected are between FAA0252S0MK and FAA0303Z183. The first seven digits are a date code, and numbers FAA0252, FAA0301, FAA0302, and FAA0303 are the serial numbers of switches that might need to be upgraded.

A switch must be upgraded if ALL of the following conditions are met:

- Your switch is one of the listed model numbers
- The serial number of the switch is within the given range
- You are NOT already running Cisco IOS 11.2(8.1)SA4
- The Base Ethernet MAC address on the back of the switch is within one of the following ranges:

```
00107B:EF3812
00107B:F05F00 - 00107B:F060FF
00500F:90A800 - 00500F:90ADF4
00500F:C8A800 - 00500F:C8AC49
005073:610600 - 005073:6107FF
005073:753A00 - 005073:754bbf
005073:754bc0 - 005073:754C0F
005073:754c10 - 005073:754E27
```

If your switch meets all the above conditions, there are two methods of upgrading your switch to the new software:

- “Upgrading Switch Software by Using the CLI” section on page 3
- “Upgrading the Software via XMODEM Protocol” section on page 5

Keep in mind that the MAC address problem could prevent your system from working on the network if any of the other affected switches are also connected to this network.

Note After you upgrade the image file and reload the software, your base Ethernet MAC address is new. You can display the new MAC address by entering the **show ver** command in enabled EXEC mode.

Downloading Files from CCO

Follow these steps to download the new version of Catalyst 2900 series XL software and the TFTP server application.

- Step 1** Enter the following URL in your browser Go To or Location field:
<http://www.cisco.com/cgi-bin/tablebuild.pl/cat2900XL>
- Step 2** Login to Software Center if prompted.
- Step 3** There are several images posted for the Catalyst 2900 Series XL. Download one of the bin files:
- Enterprise Edition Software: c2900XL-hs-mz-112.8.1-SA4.bin
 - Standard edition software: c2900XL-h-mz-112.8.1-SA4.bin

Note You can also download the supplied TFTP server from this URL. The readme.txt file describes how to download the TFTP server.

Upgrading Switch Software by Using the CLI

If you can establish IP connectivity to the switch, follow the steps below to download the new image file. If you cannot establish IP connectivity to the switch, follow the procedures in the “Upgrading the Software via XMODEM Protocol” section on page 5.

The procedure that follows includes the commands to address the following issues:

- Because the switch Flash memory can hold only one software image file, you need to change the name of the *current* image file to the name of the *new* file you are copying. You then replace the old file with the new file when you copy it into Flash memory.
- To avoid a conflict with users accessing the manager software pages during the software upgrade, you need to disable access to the HTML pages before you upgrade the software.

Follow these steps to upgrade the switch software by using a TFTP transfer:

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

Step 2 You can 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 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
Config file:      flash:config.text
Enable Break:     1
Manual Boot:      no
HELPER path-list:
NVRAM/Config file
buffer size: 32768
```

Step 5 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 6 Rename the current image file to the name of the new image. This does not affect the operation of the switch.

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

Step 7 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
-rwx       80971 Sep 14 1998 03:10:38  c2900XL-diag-mz-112.0.0.11-SA4
-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 8** Enter terminal configuration mode:
- ```
switch# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
```
- Step 9** Disable access to the switch HTML pages:
- ```
switch(config)# no IP http server
```
- Step 10** Change the name of the default image file:
- ```
switch(config)# boot system flash:new_image
```
- Step 11** Return to privileged EXEC mode:
- ```
switch(config)# end
```
- Step 12** 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 13** Use the name of the new image file when you copy it from the TFTP server to the Flash memory:
- ```
switch# copy tftp://server_ip_address//path/new_image flash:new_image  
Source IP address or hostname [server_ip_address]?  
Source filename [path/filename]?  
Destination filename [flash:new_image]?  
Loading /path/filename.bin from server_ip_address (via!)  
[OK - 843975 bytes]
```
- Step 14** Enter terminal configuration mode:
- ```
switch(config)# config terminal
Enter configuration commands, one per line. End with CNTL/Z.
```
- Step 15** Reenable access to the switch HTTP pages:
- ```
switch(config)# IP http server
```
- Step 16** Return to privileged EXEC mode:
- ```
switch(config)# end
```
- Step 17** Reload the new software with the following command:
- ```
switch# reload  
System configuration has been modified. Save? [yes/no]:y  
Proceed with reload? [confirm]
```
- Step 18** Press **Return** to confirm the reload.
- Your Telnet session ends when the switch resets.

Upgrading the Software via XMODEM Protocol

The following procedure uses the XMODEM protocol to upgrade the switch software. This procedure is largely dependent on the terminal-emulation software you are using.

Note This procedure can take up to 25 minutes to complete.

- Step 1** Connect a PC with terminal-emulation software supporting the XMODEM protocol to the switch console port.
- Step 2** Set the line speed on the emulation software to 9600 baud.
- Step 3** Unplug the power cord from the back of the switch.
- Step 4** Press and hold in the Mode button, and at the same time, reconnect the power cord to the switch. You can release the Mode button a second or two after the LED above port 1X goes off. Although the switch software did not start, you can use the boot loader to enter commands.
- Step 5** At the switch: prompt, enter the **flash_init** command to initialize the flash file system:
switch: **flash_init**
- Step 6** Enter the **copy xmodem** boot loader command to start the transfer.
- Step 7** switch: **copy xmodem: flash:image_filename**
- Step 8** When the XMODEM request appears, use the appropriate command on the terminal-emulation software to start the transfer and copy the software image into Flash memory.

Related Documentation

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

Catalyst 2900 Series XL Installation and Configuration Guide

Catalyst 2900 Series XL Enterprise Edition Software Configuration Guide

Catalyst 2900 Series XL Modules Installation Guide

Catalyst 2900 Series XL Command Reference (online only)

Quick Start: Catalyst 2900 Series XL Cabling and Setup

Release Notes for the Catalyst 2900 Series XL Cisco IOS 11.2(8)SA

Release Notes for the Catalyst 2900 Series XL Cisco IOS 11.2(8)SA1

Release Notes for the Catalyst 2900 Series XL Cisco IOS 11.2(8)SA2

Release Notes for the Catalyst 2900 Series XL Cisco IOS 11.2(8)SA3

Release Notes for the Catalyst 2900 Series XL Cisco IOS 11.2(8)SA4

Cisco Connection Online

Cisco Connection Online (CCO) is Cisco Systems' primary, real-time support channel. Maintenance customers and partners can self-register on CCO to obtain additional information and services.

Available 24 hours a day, 7 days a week, CCO provides a wealth of standard and value-added services to Cisco's customers and business partners. CCO services include product information, product documentation, software updates, release notes, technical tips, the Bug Navigator, configuration notes, brochures, descriptions of service offerings, and download access to public and authorized files.

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.

Note If you are a network administrator and need personal technical assistance with a Cisco product that is under warranty or covered by a maintenance contract, contact Cisco's Technical Assistance Center (TAC) at 800 553-2447, 408 526-7209, or tac@cisco.com. To obtain general information about Cisco Systems, Cisco products, or upgrades, contact 800 553-6387, 408 526-7208, or cs-rep@cisco.com.

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM, a member of the Cisco Connection Family, is updated monthly. Therefore, it might be more current than printed documentation. To order additional copies of the Documentation CD-ROM, contact your local sales representative or call customer service. The CD-ROM package is available as a single package or as an annual subscription. You can also access Cisco documentation on the World Wide Web at <http://www.cisco.com>, <http://www-china.cisco.com>, or <http://www-europe.cisco.com>.

If you are reading Cisco product documentation on the World Wide Web, you can submit comments electronically. Click **Feedback** in the toolbar and select **Documentation**. After you complete the form, click **Submit** to send it to Cisco. We appreciate your comments.

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

Access Registrar, AccessPath, Any to Any, AtmDirector, CCDA, CCDE, CCDP, the CCIE logo, CCNA, CCNP, CD-PAC, Centri, the Cisco Capital logo, *CiscoLink*, the Cisco Management Connection logo, the Cisco NetWorks logo, the Cisco Powered Network logo, the Cisco Press logo, the Cisco Technologies logo, ClickStart, ControlStream, DAGAZ, Fast Step, FireRunner, IGX, IOS, JumpStart, Kernel Proxy, LoopRunner, MGX, Natural Network Viewer, NetRanger, NetRanger Director, NetRanger Sensor, NetSonar, Network Registrar, *Packet*, PIX, Point and Click Internetworking, Policy Builder, Precept, RouteStream, Secure Script, SMARTnet, SpeedRunner, Stratm, StreamView, *The Cell*, TrafficDirector, TransPath, ViewRunner, VirtualStream, VlanDirector, Workgroup Director, and Workgroup Stack are trademarks; Changing the Way We Work, Live, Play, and Learn, Empowering the Internet Generation, The Internet Economy, and The New Internet Economy are service marks; and BPX, Catalyst, Cisco, Cisco IOS, the Cisco IOS logo, Cisco Systems, the Cisco Systems logo, Enterprise/Solver, EtherChannel, FastHub, ForeSight, FragmentFree, IP/TV, IPX, LightStream, LightSwitch, MICA, Phase/IP, Registrar, StrataSphere, StrataView Plus, and SwitchProbe are registered trademarks of Cisco Systems, Inc. in the U.S. and certain other countries. All other trademarks mentioned in this document are the property of their respective owners. (9901R)

Copyright © 1998 - 1999, Cisco Systems, Inc. All rights reserved.

