



Release Notes for the Catalyst 2950 Switches, Cisco IOS Release 12.1(22)EA1b

August 2004

Cisco IOS Release 12.1(22)EA1b runs on the Catalyst 2950 switches. These release notes describe the new embedded switch GUI, referred to as *the device manager*, and provides the requirements and guidelines for using it.



Note

Use these release notes with the Catalyst 2950 documentation for Cisco IOS Release 12.1(22)EA1 and Cisco IOS Release 12.1(20)EA2, unless otherwise noted.



Note

This release and these release notes do not apply to the Catalyst 2940, Catalyst 2950 LRE, and Catalyst 2955 switches. For information about these switches, refer to Cisco IOS Release 12.1(22)EA1 and earlier.

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System Requirements

This section describes the hardware and software requirements for using the device manager.



Note

Disregard the Cluster Management Suite (CMS) information described in the Cisco IOS Release 12.1(22)EA1 release notes and in the “Getting Started with CMS” chapter of the switch software configuration guide.

Hardware Requirements

[Table 1](#) lists the minimum hardware requirements for running the device manager.

Table 1 Minimum Hardware Requirements

Processor Speed	DRAM	Number of Colors	Resolution	Font Size
Intel Pentium II ¹	64 MB ²	256	1024 x 768	Small

1. We recommend Intel Pentium 4.
2. We recommend 256-MB DRAM.

Software Requirements

[Table 2](#) lists the supported operating systems and browsers for using the device manager. The device manager verifies the browser version when starting a session to ensure that the browser is supported.



Note

The device manager does not require a plug-in.

Table 2 Supported Operating Systems and Browsers

Operating System	Minimum Service Pack or Patch	Microsoft Internet Explorer ¹	Netscape Navigator
Windows 98	None	5.5 or 6.0	7.1
Windows NT 4.0	Service Pack 6 or later	5.5 or 6.0	7.1
Windows 2000	None	5.5 or 6.0	7.1
Windows XP	None	5.5 or 6.0	7.1

1. Service Pack 1 or higher is required for Internet Explorer 5.5.

Cluster Compatibility

This release supports the same switch cluster compatibilities supported in Cisco IOS Release 12.1(22)EA1. However, you cannot create and manage switch clusters through the device manager. To create and manage switch clusters, use the command-line interface (CLI) or the Cisco Network Assistant application. For information about Network Assistant, see the “[New Feature](#)” section on page 4.



Note

Disregard the CMS information in the “Clustering Switches” chapter in the switch software configuration guide.

Upgrading the Switch Software

The software for this release is posted on Cisco.com. [Table 3](#) lists the software filenames.

Table 3 Cisco IOS Software Image Files for the Catalyst 2950 Switches

Filename	Description
c2950-i6q4l2-tar.121-22.EA1b.tar	Catalyst 2950 SI ¹ and EI Cisco IOS image and device manager files
c2950-i6k2l2q4-tar.121-22.EA1b.tar	Catalyst 2950 EI cryptographic Cisco IOS image and device manager files

1. Switches that support only the SI cannot run the cryptographic image.

For guidelines and procedures on how to download the switch software from Cisco.com and to upgrade the switch, refer to the Cisco IOS Release 12.1(22)EA1 release notes.



Note

After upgrading the switch to this release, you can only upgrade the switch through the CLI. You cannot upgrade the switch through the device manager.



Caution

A bootloader upgrade occurs if you are upgrading Catalyst 2950 switches running Cisco IOS Release 12.1(9)EA1d or earlier to Cisco IOS Release 12.1(11)EA1 or later for both cryptographic and noncryptographic images. The bootloader can take up to 30 seconds to upgrade. Do not power cycle the switch while you are copying this image to the switch. If a power failure occurs when you are copying this image to the switch, call Cisco Systems immediately.

Installation Notes

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

- Express Setup program, as described in the switch getting started guide. For information about this guide, see the “[Getting Started Guide](#)” section on page 7.
- CLI-based setup program, as described in the switch hardware installation guide.
- DHCP-based autoconfiguration, as described in the switch software configuration guide.
- Manually assigned IP address, as described in the switch software configuration guide.

New Feature

This release offers a new embedded GUI referred to as *the device manager*. The device manager provides simplified management for a single switch. Its features, such as Smartports and color-coded graphs, make it easier to configure and monitor the switch. No special installation is required. After the switch is configured through the Express Setup program or through the CLI-based setup program, the device manager is accessible through a Microsoft Internet Explorer or Netscape Navigator browser session. For more information, refer to the device manager online help. For information on how to display the device manager, refer to the switch getting started guide. This guide is a new Catalyst 2950 document. For more information, see the “[Getting Started Guide](#)” section on page 7.

With the introduction of the device manager, note these considerations:

- The Cluster Management Suite (CMS) software is not supported in this release and does not apply to the device manager. Disregard the CMS information in the Cisco IOS Release 12.1(22)EA1 release notes and in the Catalyst 2950 documentation, including the “Getting Started with CMS” chapter and the CMS instructions in the “Clustering Switches” chapter in the switch software configuration guide.
- A new network management application referred to as Cisco Network Assistant replaces CMS. Network Assistant provides a comprehensive set of features for managing single and multiple devices, including switch clusters, through a GUI. This application must be downloaded from Cisco.com and be installed on your PC. It will be available from Cisco.com later in 2004. You can learn more about Network Assistant at this URL:

<http://www.cisco.com/go/NetworkAssistant>

Limitations and Restrictions

You should review this section before you begin working with the switch. These are known limitations that will not be fixed, and there is not always a workaround. Some features might not work as documented, and some features could be affected by recent changes to the switch hardware or software.

These are the limitations and restrictions:

- “[Cluster Limitations and Restrictions](#)” section on page 4
- “[Device Manager Limitations and Restrictions](#)” section on page 5

Cluster Limitations and Restrictions

This release supports the same switch cluster compatibilities supported in Cisco IOS Release 12.1(22)EA1. However, you cannot create and manage switch clusters through the device manager. To create and manage switch clusters, use the CLI or the Cisco Network Assistant application. For information about Network Assistant, see the “[New Feature](#)” section on page 4.



Note

Disregard the CMS information in the “Clustering Switches” chapter in the switch software configuration guide because they do not apply to this release or to the device manager.

Device Manager Limitations and Restrictions

These limitations and restrictions apply to the device manager:

- This release supports the same switch cluster compatibilities supported in Cisco IOS Release 12.1(22)EA1. However, you cannot create and manage switch clusters through the device manager. To create and manage switch clusters, use the CLI or the Cisco Network Assistant application. For information about Network Assistant, see the [“New Feature” section on page 4](#).



Note Disregard the CMS information in the “Clustering Switches” chapter in the switch software configuration guide because they do not apply to this release or to the device manager.

- After upgrading the switch to this release, you can only upgrade the switch through the CLI. You cannot upgrade the switch through the device manager.

Important Notes

This section describes important information related to the device manager.

- We recommend this browser setting to speed up the time to display 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 enabled 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	configure terminal	Enter global configuration mode.
Step 2	ip http authentication {enable local tacacs}	Configure the HTTP server interface for the type of authentication that you want to use. <ul style="list-style-type: none"> • enable—Enable password, which is the default method of HTTP server user authentication, is used. • local—Local user database, as defined on the Cisco router or access server, is used. • tacacs—TACACS server is used.
Step 3	end	Return to privileged EXEC mode.
Step 4	show running-config	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). You should 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 (the 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"> enable—Enable password, which is the default method of HTTP server user authentication, is used. local—Local user database, as defined on the Cisco router or access server, is used. tacacs—TACACS server is used.
Step 3	<code>end</code>	Return to privileged EXEC mode.
Step 4	<code>show running-config</code>	Verify your entries.

- If you use Internet Explorer Version 5.5 and select a URL with a nonstandard port at the end of the address (for example, `www.cisco.com:84`), you must enter `http://` as the URL prefix. Otherwise, you cannot launch the device manager.

Open Caveats

These are the open caveats for the device manager:



Note

Refer to the Cisco IOS Release 12.1(22)EA1 release notes for the open Cisco IOS caveats, which also apply to this release.

- CSCee89760

The device manager does not appear correctly if the JavaScript setting is disabled on your web browser. To enable JavaScript on your browser, follow these steps:



Note

The device manager requires that JavaScript is enabled. It is not necessary to enable Java.

From Microsoft Internet Explorer:

- Choose **Tools > Internet Options**.
- Choose the **Security** tab.

3. Click **Custom Level**.
4. Under **Scripting > Active Scripting**, click **Enable**.
5. Click **OK**.
6. Click **Yes** in the Warning dialog box.
7. Click **OK** to exit the Internet Options window.

From Netscape Navigator:

1. Choose **Edit > Preferences**.
 2. From the **Category** list, choose **Advanced > Scripts & Plugins**.
 3. Choose **Navigator** in the “Enable Javascript for” area.
 4. Choose all of options in the “Allow webpages to” area.
 5. Click **OK**.
- CSCef35301

If you are displaying the device manager from Netscape Navigator and if two or more switch ports are configured as a Fast EtherChannel or a Gigabit EtherChannel, the switch displays a *null* status for the first switch port, and an `unknown port type` error message appears. EtherChannels on the switch can be configured through the CLI or through a network management application such as the Cisco Network Assistant (see the “[New Feature](#)” section on page 4).

The workaround is to use Microsoft Internet Explorer to display the device manager.

Documentation Updates

This section provides updates to the product documentation.

- “[Getting Started Guide](#)” section on page 7
- “[Regulatory Compliance and Safety Information Guide](#)” section on page 8
- “[Documentation Flyer](#)” section on page 8
- “[Hardware Installation Guide](#)” section on page 8
- “[Software Configuration Guide, Command Reference, System Messages Guide, Hardware Installation Guide, and Cisco IOS Release 12.1\(22\)EA1 Release Notes](#)” section on page 8

Getting Started Guide

The getting started guide is new to the Catalyst 2950 documentation set. It provides instructions on configuring the switch through the Express Setup program and on displaying or accessing the switch management interfaces, including the device manager. Also covered are switch management options, basic rack-mounting procedures, port and module connections, power connection procedures for both AC- and DC-powered switches, and troubleshooting help.

This guide ships with the switch. It is also orderable from Cisco.com and is available on the Catalyst 2950 documentation site on Cisco.com.



Note

This guide replaces the information previously contained in the “Quick Setup” chapter in the switch hardware installation guide.

Regulatory Compliance and Safety Information Guide

The regulatory compliance and safety information guide is new to the Catalyst 2950 documentation set. It contains agency approvals, compliance information, and translated warning statements.

This guide ships with the switch. It is also orderable from Cisco.com and is available on the Catalyst 2950 documentation site on Cisco.com.

**Note**

This guide replaces the information previously contained in the “Translated Safety Warnings” appendix in the switch hardware installation guide.

Documentation Flyer

The documentation flyer—which described where to find the Catalyst 2950 documentation on Cisco.com—no longer ships with the switch. This information is now available in the new switch getting started guide (see [“Getting Started Guide” section on page 7](#)).

Hardware Installation Guide

These changes have been made to the switch hardware installation guide:

- The switch hardware installation guide no longer ships with the switch. It still is orderable from Cisco.com and is available on the Catalyst 2950 documentation site on Cisco.com.
- The “Quick Setup” chapter has been removed from this guide. Quick setup information, such as how to use the Express Setup program and how to display the device manager, is now available in the new switch getting started guide (see [“Getting Started Guide” section on page 7](#)).
- The “Translated Safety Warnings” appendix has been removed from this guide. The translated safety warnings are now in the new regulatory compliance and safety information guide (see [“Regulatory Compliance and Safety Information Guide” section on page 8](#)).

Software Configuration Guide, Command Reference, System Messages Guide, Hardware Installation Guide, and Cisco IOS Release 12.1(22)EA1 Release Notes

These changes will be included in the next documentation revision:

- CMS is not supported in this release and does not apply to the device manager. Disregard the CMS information in the Cisco IOS Release 12.1(22)EA1 release notes and in the Catalyst 2950 documentation, including the “Getting Started with CMS” chapter and the CMS instructions in the “Clustering Switches” chapter in the switch software configuration guide.
- This release supports the same switch cluster compatibilities supported in Cisco IOS Release 12.1(22)EA1. However, you cannot create and manage switch clusters through the device manager. To create and manage switch clusters, use the CLI or the Cisco Network Assistant application. For information about Network Assistant, see the [“New Feature” section on page 4](#). Disregard the CMS information in the Cisco IOS Release 12.1(22)EA1 release notes and in the “Clustering Switches” chapter in the switch software configuration guide.

Related Documentation

These documents provide complete information about the Catalyst 2950 switches and are available at Cisco.com:

<http://www.cisco.com/univercd/cc/td/doc/product/lan/cat2950/index.htm>

You can order printed copies of documents with a DOC-xxxxxx= number from the Cisco.com sites and from the telephone numbers listed in the “[Obtaining Documentation](#)” section on page 9.

These publications provide more information about the Catalyst 2950 switches:

- *Catalyst 2950 Switch Getting Started Guide* (order number DOC-7816521)
- *Regulatory Compliance and Safety Information for the Catalyst 2950 Switch* (order number DOC-7816625)
- *Catalyst 2950 Desktop Switch Hardware Installation Guide* (order number DOC-7811157=)
- *Catalyst 2950 and Catalyst 2955 Desktop Switch Software Configuration Guide* (order number DOC-7811380=)
- *Catalyst 2950 and Catalyst 2955 Desktop Switch Command Reference* (order number DOC-7811381=)
- *Catalyst 2950 and Catalyst 2955 Desktop Switch System Message Guide* (order number DOC-7814233=)
- Device manager online help (available on the switch)

For other information about related products, refer to these documents:

- *1000BASE-T Gigabit Interface Converter Installation Notes* (not orderable but available on Cisco.com)
- *Catalyst GigaStack Gigabit Interface Converter Hardware Installation Guide* (order number DOC-786460=)
- *CWDM Passive Optical System Installation Note* (not orderable but available on Cisco.com)

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

<http://www.cisco.com/en/US/partner/ordering/index.shtml>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year at this URL:

<http://www.cisco.com/techsupport>

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool automatically provides recommended solutions. If your issue is not resolved using the recommended resources, your service request will be assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

<http://www.cisco.com/techsupport/servicerequest>

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553 2447

For a complete list of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/techsupport/contacts>

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:
<http://www.cisco.com/go/marketplace/>
- The Cisco *Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:
<http://cisco.com/univercd/cc/td/doc/pcat/>
- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/packet>
- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
<http://www.cisco.com/ipj>
- World-class networking training is available from Cisco. You can view current offerings at this URL:
<http://www.cisco.com/en/US/learning/index.html>

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