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Release Notes for Cisco IOS Release 11.1(19)R Software Feature Packs for Cisco 7200 Series Routers

July 27, 1998

These release notes describe the Cisco IOS Release 11.1(19)R feature packs for Cisco 7200 Series routers.

Note Cisco IOS Release 11.1(19)R and the Cisco IOS Release 11.1(19)CC are the same release.

These release notes contain the following topics:

- Introduction, page 2
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- Open Source License Acknowledgements, page 18

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Introduction

This section explains how to use this document, describes feature pack components, and has tables that define the aspects of a feature pack.

How to Use These Release Notes

The tables in these release notes contain details about the Cisco feature packs. Use these tables to perform the following tasks before loading a software image onto a router:

- 1 Use Table 1, “Feature Pack Product Numbers Quick-Reference List”, to identify the software image you want to load.
- 2 Use Table 2, “Cisco 7200 Series Feature Packs,” to identify your feature pack and the memory required for your feature set, based on the image you load.
- 3 Use Table 4, “Cisco 7200 Series Default Memory and Upgrade Options”, to check the memory required for your feature set, and determine the factory-default memory on the router and the available memory upgrades.
- 4 Use the “Feature Set Table” section to identify which features are supported in a feature set image.

What Is a Feature Pack?

This section describes:

- Feature Pack Components
- Product Numbers Quick-Reference List
- Feature Pack Overview Table
- Feature Set Table

Feature Pack Components

A feature pack is a small box that contains the following items:

- CD-ROM with the following software:
 - Cisco IOS feature set software images that can include bundled modem firmware
 - Router Software Loader (RSL) program (a Windows 95 application)
 - A Trivial File Transfer Protocol (TFTP) server application (for Windows 95 only)
- *Getting Started with the Router Software Loader* CD booklet
- Release notes that include alternatives to using the RSL for loading software images onto a router
- Software license for using Cisco software in-object code form on a single access server or router
- Cisco Documentation CD-ROM that contains all Cisco documentation

The heart of a feature pack is the CD-ROM that contains software images and the Router Software Loader (RSL), which is a Windows 95 application that loads an image onto an access router or server. Each feature pack CD-ROM contains at least one Cisco IOS feature set. The CD booklet, *Getting Started with the Router Software Loader* explains how to use the RSL to install the router image. If you cannot use the RSL to load images, you can follow the instructions in the “Installing the Software Image Using a TFTP Server Application” section on page 9.

Before running the RSL, read the section “Installing Software Images Using the RSL” on page 8.

Product Numbers Quick-Reference List

Table 1 lists the Cisco product numbers of the feature packs supported in this release.

Table 1 Feature Pack Product Numbers Quick-Reference List

Product Number	Feature Pack Description
SF-G72A-11.1.x	Cisco 7200 Enterprise Feature Pack
SF-G72AN-11.1.x	Cisco 7200 Enterprise and APPN Feature Pack
SF-G72BS-11.1.x	Cisco 7200 Desktop and IBM Feature Pack
SF-G72R-11.1.x	Cisco 7200 Network Layer 3 Switching Feature Pack

Feature Pack Overview Table

Table 2 identifies each feature pack as specified on the router software CD-ROM label, describes the feature sets in each feature pack, and lists the following: UNIX and DOS filenames of the images, memory requirements, and the RSL installer description.

Table 2 Cisco 7200 Series Feature Packs

Product Number	CD-ROM Title	Image Name (UNIX)	Image Name (DOS)	Flash Memory Required	Main Memory Required	RSL Installer Description
SF-G72A-11.1.x	Cisco 7200 Enterprise Feature Pack Release 11.1(19)R	c7200-j-mz.111-19.CC	80291419	16 MB	32 MB	Cisco 7200 Series IOS Enterprise Feature Set 11.1(19)R
SF-G72AN-11.1.x	Cisco 7200 Enterprise and APPN Feature Pack Release 11.1(19)R	c7200-aj-mz.111-19.CC	80291719	32 MB	32 MB	Cisco 7200 Series IOS Enterprise/APPN Feature Set 11.1(19)R
SF-G72BS-11.1.x	Cisco 7200 Desktop/IBM Feature Pack Release 11.1(19)R	c7200-dr-mz.111-19.CC	80291619	16 MB	32 MB	Cisco 7200 Series IOS Desktop/IBM Feature Set 11.1(19)R
SF-G72R-11.1.x	Cisco 7200 Network Layer 3 Switching Feature Pack Release 11.1(19)R	c7200-inu-mz.111-19.CC	80203608	16 MB	32 MB	Cisco 7200 Series IOS Network Layer 3 Switching Feature Set 11.1(19)R

Feature Set Table

The Cisco IOS software is packaged into “feature sets” (also called “images”). Many different feature sets are available, and each feature set contains a specific subset of Cisco IOS features. The following conventions are used to identify feature sets:

The following list shows which feature sets are supported on the Cisco 7200 Series routers. These feature sets only apply to Cisco IOS Release 11.1(19)R.

- Enterprise
- Enterprise and APPN
- Desktop and IBM
- Network Layer 3 Switching

To determine what features are available with each feature set (software image), see Table 3. The table summarizes the features you can use when running a specific feature set on the Cisco 7200 Series routers for Cisco IOS Release 11.1(19)R. Table 3 uses these terms:

Feature Set Matrix Term	Description
Yes	This feature is offered.
No	This feature is not offered.

Table 3 Cisco 7200 Series Software Feature Sets

Feature	Feature Set			
	Network Layer 3 Switching	Desktop/IBM	Enterprise	Enterprise/APPN
SNMP	Yes	Yes	Yes	Yes
RMON (events and alarms)	Yes	Yes	Yes	Yes
Asynchronous support (SLIP)	Yes	Yes	Yes	Yes
Frame Relay	—	Yes	Yes	Yes
SMDS	Yes	Yes	Yes	Yes
X.25	Yes	Yes	Yes	Yes
ISDN	—	Yes	Yes	Yes
PPP	—	Yes	Yes	Yes
HDLC	—	Yes	Yes	Yes
IP	Yes	Yes	Yes	Yes
RIP	Yes	Yes	Yes	Yes
RIPv2	Yes	Yes	Yes	Yes
IGRP	Yes	Yes	Yes	Yes
Enhanced IGRP	Yes	Yes	Yes	Yes
OSPF	Yes	Yes	Yes	Yes
BGP	Yes	Yes	Yes	Yes
EGP	Yes	Yes	Yes	Yes

Table 3 Cisco 7200 Series Software Feature Sets (continued)

Feature	Feature Set			
	Network Layer 3 Switching	Desktop/IBM	Enterprise	Enterprise/APPN
PIM	Yes	Yes	Yes	Yes
NHRP	Yes	Yes	Yes	Yes
Policy-based routing	Yes	Yes	Yes	Yes
ES-IS	—	—	Yes	Yes
IS-IS	—	—	Yes	Yes
DDR	—	Yes	Yes	Yes
Snapshot routing	—	Yes	Yes	Yes
NTP	Yes	Yes	Yes	Yes
Transparent bridging	Yes	Yes	Yes	Yes
Translational bridging	Yes	Yes	Yes	Yes
Concurrent routing and bridging	Yes	Yes	Yes	Yes
Multiring	Yes	Yes	Yes	Yes
LAN extension host	Yes	Yes	Yes	Yes
ISL	Yes	—	—	—
GRE	—	Yes	Yes	Yes
IPX	Yes	Yes	Yes	Yes
NLSP	Yes	Yes	Yes	Yes
IPX RIP	Yes	Yes	Yes	Yes
RTMP	Yes	Yes	Yes	Yes
IPXWAN 2.0	—	Yes	Yes	Yes
AppleTalk Versions 1 and 2	—	Yes	Yes	Yes
AURP	Yes	Yes	Yes	Yes
SMRP	Yes	Yes	Yes	Yes
S RTP	—	—	Yes	Yes
DECnet IV	—	Yes	Yes	Yes
DECnet V	—	—	Yes	Yes
OSI	—	—	Yes	Yes
Apollo Domain	—	—	Yes	Yes
Banyan VINES	—	—	Yes	Yes
ISO CLNS	—	—	Yes	Yes
XNS	—	—	Yes	Yes
Lock-and-Key	Yes	Yes	Yes	Yes
MD5 routing authentication	Yes	Yes	Yes	Yes
Kerberized login	—	—	Yes	Yes

Table 3 Cisco 7200 Series Software Feature Sets (continued)

Feature	Feature Set			
	Network Layer 3 Switching	Desktop/IBM	Enterprise	Enterprise/APPN
TACACS+	Yes	Yes	Yes	Yes
RADIUS	Yes	Yes	Yes	Yes
V.120	—	—	Yes	Yes
SRB ¹	—	Yes	Yes	Yes
RSRB	—	Yes	Yes	Yes
APPN	—	—	—	Yes
FRAS BAN	—	Yes	Yes	Yes
DLSw (RFC 1795)	—	Yes	Yes	Yes
DLSw+ ²	—	Yes	Yes	Yes
SDLC	—	Yes	Yes	Yes
SDLLC	—	Yes	Yes	Yes
SRT bridging	—	Yes	Yes	Yes
STUN	—	Yes	Yes	Yes
TG/COS	—	—	Yes	Yes
QLLC	—	Yes	Yes	Yes
DSPU	—	—	Yes	Yes
NetView Native Service Point	—	Yes	Yes	Yes
Protocol translation	—	—	Yes	Yes
Telnet	Yes	Yes	Yes	Yes
Modem auto-configuring	Yes	Yes	Yes	Yes
PAD	—	—	Yes	Yes
AutoInstall	Yes	Yes	Yes	Yes
Router monitoring	—	—	Yes	Yes
DHCP	—	—	Yes	Yes
NetBEUI over PPP	—	—	Yes	Yes

1 SRB over FDDI is not supported in this release.

2 DLSw+ over TCP/IP is supported.

System Requirements

This section describes the following:

- Memory Requirements
- Hardware Supported
- Software Compatibility
- Determining Your Software Release

Memory Requirements

Table 4 lists the memory delivered by default and the available memory upgrades.

Depending on the circumstances, you might need to determine the amount of main memory (DRAM) required by your Cisco 7200 series router to support a combination of installed port adapter types and the Cisco IOS image you intend to load from the feature pack CD-ROM. To calculate memory requirements, use the publication *Cisco 7200 Series Port Adapter Hardware Configuration Guidelines* (78-3471-xx), which ships with your chassis.

Table 4 Cisco 7200 Series Default Memory and Upgrade Options

Memory Type	Cisco 7200 Series Defaults	Upgrade Options
Flash memory card	16 MB	20-MB upgrade for Cisco 7202: MEM-I/O-7202-20M 8-MB upgrade: MEM-I/O-FLC8M= 16-MB upgrade: MEM-I/O-FLC16M= 20-MB upgrade: MEM-I/O-FLC20M=
DRAM	32 MB	8-MB upgrade: MEM-NPE-8MB= 16-MB upgrade: MEM-NPE-16MB= 32-MB upgrade: MEM-NPE-32MB= 64-MB upgrade: MEM-NPE-64MB= 183-MB upgrade: MEM-NPE-128MB=

Hardware Supported

The Router Software Loader (RSL) Version 7.1 supports many Cisco series of routers. Specific to the Cisco 7200 series, the RSL Version 7.1 supports the Cisco 7202, Cisco 7204, and Cisco 7206).

Software Compatibility

The feature packs described in these release notes contain Cisco IOS Release 11.1(19)R software images, some earlier images, and the Router Software Loader (RSL) Version 7.1. Before running the RSL, read the “Installing Software Images Using the RSL” section on page 8.

Determining Your Software Release

To view the version of Cisco IOS software that is running on your Cisco 7200 series router, log in to the router, and enter the **show version** user EXEC command:

```
router> show version
```

An output begins similar to the following. The Cisco IOS version appears in the second line.

```
Cisco Internetwork Operating System Software
IOS (tm) 7200 Software (C7200-BNR2SY-L), Version 11.1(19)R, RELEASE SOFTWARE
```

The output includes more information including processor revision numbers, memory amounts, hardware IDs, and partition information.

Installing Software Images Using the RSL

The Router Software Loader (RSL) application contained on the feature pack CD-ROM is designed to work with a PC running Microsoft Windows 95. Refer to the booklet included with the CD-ROM for instructions to install the software images.

This section describes several solutions to problems you might encounter when using the RSL. These solutions are additions to the RSL online help.

Recovering from a Connection Error

This installation tip provides a possible recovery solution in the event that you are unable to connect to your router. You can skip this section unless you are experiencing a connection error.

In some cases, you might receive the following error message while connecting to the target router:

```
"Failed to configure the router to enable the Cisco IOS software image and configuration file upload and download operations. You may want to check the router to make sure that the selected interface exists."
```

If you encounter this message, try increasing the Short Timeout value, which is set to 25 seconds, in the Options dialog box, especially if one of the following situations applies:

Note Increasing the Short Timeout value might increase the time it takes for the RSL to connect to the target router.

- You are connecting to a router that has a large configuration file.
- You are connecting to a Cisco AS5200 access server. A Cisco AS5200 requires up to 45 seconds to write a configuration to nonvolatile random-access memory (NVRAM), because of the amount of interfaces that must be checked during this process. Increase the Short Timeout value to 60 seconds.

Restoring the Startup Configuration

In some cases, the RSL is unable to restore the startup configuration. If this happens, take the following steps:

- Step 1** Ensure that all cables are properly attached to both the router and the PC.
- Step 2** Restart the RSL, and connect using the **Preconfigured router** option.
- Step 3** When asked if you want to overwrite the existing startup configuration file, choose **No**.
- Step 4** When asked if you want to continue, choose **Yes**.
- Step 5** When connected, select **Download Router Configuration** in the Router Software Loader dialog box.
- Step 6** Select the appropriate file, and click **Copy configuration to the router's nonvolatile memory**.

The router should now contain the startup configuration it had before the initial RSL connection. You can now exit the RSL.

Note In the previous situation, the router's configuration register (**config-register 0xnnnn**) is not restored.

Note If you enter **Ctrl-Alt-Delete** to terminate the RSL, the router's configuration and configuration register are not restored. However, in this case, the configuration file is not deleted from the PC, so it can be restored using the previous steps.

Helpful Hints

The following information about RSL operations can help you with the installation process:

- If you have added any static entries to the PC's Address Resolution Protocol (ARP) table, one of them might be deleted by the RSL. This entry will need to be manually reentered into the PC's ARP table.
- If the router's running configuration at connection time is not the same as the router's startup configuration, the exact configuration will not be restored. Any changes that you have made since the last time a **copy running-config startup-config** or **write memory** command was entered will be lost.
- RSL will restore the router's running configuration, but some configuration commands will not be restored. However, the startup configuration will be correct. You can restore the exact running configuration by rebooting the router. Commands not restored to the running configuration include the following interface configuration commands: **no shutdown**, **no ringspeed**, and **media-type aui**.

Installing the Software Image Using a TFTP Server Application

The Router Software Loader (RSL) application contained on the feature pack CD-ROM is designed to work with a PC running Microsoft Windows 95. The booklet included with the CD-ROM explains how to perform this simple and recommended install process. However, an alternative is available using a TFTP server application to install router software.

This section explains how to use a TFTP server application as an alternative to using the RSL to install the router software from the CD-ROM. You can perform this procedure using a PC (running Microsoft Windows 95 or Microsoft Windows 3.1), a Macintosh, or a UNIX system. You can use either the **copy tftp flash** or **copy rcp flash** command to download the software to the router.

First obtain a TFTP application or a remote copy protocol (rcp) application to set up your computer as a TFTP server or an rcp server. You can use the RSL or the TFTP server included on the feature pack CD-ROM to install the software only if you are using a PC running Windows 95. For other operating systems, a number of TFTP or rcp applications are available from independent software vendors or as shareware from public sources on the World Wide Web.

Installation Process for Router Software Feature Sets

This section provides steps that describe how to install the router software feature sets using a Microsoft Windows 3.1 PC with a TFTP server application. You can also set up your Macintosh or UNIX workstation as a TFTP server and follow the same steps.

To install the software using an `rcp` application, follow the same procedure and substitute `rcp` for TFTP in the instructions. You must also substitute the **`copy rcp flash`** command for the **`copy tftp flash`** command in Step 8.

- Step 1** Install any TFTP application on the PC. (Not provided by Cisco.)
- Step 2** Launch the TFTP application on the PC. You commonly do this by double-clicking the application icon or its filename.
- Step 3** Set up the PC as a TFTP server using the TFTP application setup or configuration facility.

The user interface of most TFTP applications includes a setup facility that allows you to specify the PC as a server. For example, from the TFTP menu of one application, you can select **Settings** to display a panel that includes a checkbox beside the word **Server**. To configure the local PC as a server, click in this checkbox.

The TFTP server also allows you to select a “root” directory. You must select the directory in which the Cisco IOS and upgrade files reside, for example `d:\cpswinst\images`.



Caution Be sure you set up your local PC as a TFTP server. If you overlook this step, you will not be able to perform the copy procedure. This reminder also applies if you are using `rcp` on your system instead of TFTP.

- Step 4** Establish a console session from your local PC (which is now configured as a TFTP server) to the Cisco router.

You can do this in two ways:

- Connect the PC's COM port to the router's console port.

This is the recommended method. If you use this method, when you reload the router to cause the image to take effect in Step 10, you will remain connected to the router. (Using Telnet, you will lose connection to the router at that point in the process.)

- Establish a Telnet session from the PC to the router.

- Step 5** Connect your PC's Ethernet, Fast Ethernet, or Token Ring port to the router's corresponding LAN port. Use the 10BaseT crossover cable provided if connecting to an Ethernet or Fast Ethernet port. You must use Category 5 cable for Fast Ethernet routers.

Note Use straight-through cables if you are connecting through a 10BaseT hub or a 100BaseT hub.

For systems without a LAN interface, make sure that the router and the PC have IP connectivity through the available interface (that is, the router and PC can ping each other with IP traffic).

- Step 6** At the router prompt, enter the enable mode and supply the necessary password if prompted:

```
Router> enable
password: password
router#
```



Caution Be aware that a Cisco 7200 series router do not prompt you before it erases the Flash memory card. Also, it will load the Cisco IOS image even if it doesn't fit. For this reason, Cisco Systems recommends that you issue the **delete** and **squeeze** commands before copying the new software image to Flash memory.

Step 7 Delete and then squeeze the contents of Flash memory, as shown below.

```
Router# show flash slot0:
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1 .. unknown 0CC88032 318F74 12 3116788 Mar 26 1998 08:07:07 80203408.bin
4878476 bytes available (3116916 bytes used)

Router# show flash slot1:
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1 .. unknown 48FFB8AE 2E4470 12 2900976 Mar 26 1998 07:50:41 80126717.bin
5094288 bytes available (2901104 bytes used)

Router# show flash bootflash:
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1 .. unknown 06169C50 1D8CAC 21 1674284 Mar 16 1998 17:03:16
c7200-boot-mz.113-2.2
2 .. unknown 780E0F80 3491B4 23 1508488 Mar 16 1998 17:04:02
c7200-boot-mz.111-19.CC
224844 bytes available (3183028 bytes used)

Router#

Router# delete slot0:80203408.bin
Overwrite image file? [confirm]

Router# sh flash slot0:
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1 .D unknown 0CC88032 318F74 12 3116788 Mar 26 1998 08:07:07 80203408.bin
4878476 bytes available (3116916 bytes used)

Router# squeeze slot0:
All deleted files will be removed, proceed? [confirm]
Squeeze operation may take a while, proceed? [confirm]
Erasing squeeze log
Router#
```

Step 8 At the router prompt, enter the following command to copy the new software image from the CD-ROM drive of the PC to the Cisco 7200 series router. In this example, the filename **80203408.bin** is the name of the file on the CD-ROM. The filename **c7200-aj-mz.111-19.cc** is the destination name for the IOS image to be copied to the router.

```
Router# copy tftp:80203408.bin slot0:c7200-ajs-mz.111-19.cc
7995264 bytes available on device slot0, proceed? [confirm]
```


Cisco 7202-Specific Documentation

The following documents are specific to the Cisco 7202 routers:

- *Cisco 7202 Installation and Configuration Guide*
- Cisco 7202 Configuration Notes
- *Regulatory Compliance and Safety Information for the Cisco 7200 Series Routers*

New Feature Documentation

New feature documentation is first published online only, and is eventually added to the books in the Cisco IOS documentation set. New feature documentation includes configuration tasks and new and changed command reference information; it supplements the Cisco IOS Release 11.1 configuration guide and command reference books. The new feature documentation for Release 11.1 CC is available online on CCO and on the Documentation CD-ROM. Refer to the “Online Navigation” on page 15 for details.

Cisco IOS Documentation Set

The Cisco IOS software documentation is divided into nine modules and two master indexes. There are also four supporting documents.

Note The most current Cisco IOS documentation can be found on the latest Documentation CD-ROM and on the Web. These electronic documents contain updates and modifications made after the paper documents were printed. See the section “Online Navigation” for details.

Documentation Modules

Each module consists of two books: a configuration guide and a corresponding command reference. Chapters in a configuration guide describe protocols, configuration tasks, and Cisco IOS software functionality and contain comprehensive configuration examples. Chapters in a command reference provide complete command syntax information. Each configuration guide can be used in conjunction with its corresponding command reference.

Master Indexes

Two master indexes provide indexing information for the Cisco IOS software documentation set: an index for the configuration guides and an index for the command references. In addition, individual books contain a book-specific index.

The Cisco IOS documentation set consists of the following books and chapter topics:

Books	Chapter Topics
• <i>Configuration Fundamentals Configuration Guide</i>	Configuration Fundamentals Overview
• <i>Configuration Fundamentals Command Reference</i>	Cisco IOS User Interfaces
	File Management
	Interface Configuration
	System Management

Related Documentation

Books	Chapter Topics
<ul style="list-style-type: none">• <i>Network Protocols Configuration Guide, Part 1</i>• <i>Network Protocols Command Reference, Part 1</i>	IP Addressing IP Services IP Routing Protocols
<ul style="list-style-type: none">• Network Protocols Configuration Guide, Part 2• Network Protocols Command Reference, Part 2	AppleTalk Novell IPX
<ul style="list-style-type: none">• Network Protocols Configuration Guide, Part 3• Network Protocols Command Reference, Part 3	Apollo Domain Banyan VINES DECnet ISO CLNS XNS
<ul style="list-style-type: none">• Wide-Area Networking Configuration Guide• Wide-Area Networking Command Reference	ATM Frame Relay SMDS X.25 and LAPB
<ul style="list-style-type: none">• Security Configuration Guide• Security Command Reference	AAA Security Services Security Server Protocols Traffic Filtering Network Data Encryption Passwords and Privileges Neighbor Router Authentication IP Security Options
<ul style="list-style-type: none">• Dial Solutions Configuration Guide• Dial Solutions Command Reference	Dial Business Solutions and Examples Dial-In Port Setup DDR and Dial Backup Remote Node and Terminal Service Cost-Control and Large-Scale Dial Solutions VPDN
<ul style="list-style-type: none">• Cisco IOS Switching Services Configuration Guide• Cisco IOS Switching Services Command Reference	Switching Paths for IP Networks Fast Switching Autonomous Switching NetFlow Switching Optimum Switching Virtual LAN (VLAN) Switching and Routing Inter-Switch Link Protocol Encapsulation IEEE 802.10 Encapsulation LAN Emulation

Books	Chapter Topics
<ul style="list-style-type: none"> • Bridging and IBM Networking Configuration Guide • Bridging and IBM Networking Command Reference 	Transparent Bridging Source-Route Bridging Remote Source-Route Bridging DLSw+ STUN and BSTUN LLC2 and SDLC IBM Network Media Translation DSPU and SNA Service Point SNA Frame Relay Access Support APPN NCIA Client/Server Topologies IBM Channel Attach
<ul style="list-style-type: none"> • Cisco IOS Software Command Summary • Dial Solutions Quick Configuration Guide • System Error Messages • Debug Command Reference 	

Note The *Cisco Management Information Base (MIB) User Quick Reference* publication is no longer being published. For the latest list of MIBs supported by Cisco, see the *Cisco Network Management Toolkit* on Cisco Connection Online. On CCO, go to **Software and Support: Software Center: Network Management Products: Cisco Network Management Toolkit: Cisco MIBs**.

Other Supporting Documents

The following documents also relate to the Cisco 7200 series routers:

- *Release Notes for Cisco IOS Release 11.1*
- Product-specific Cisco IOS release notes for the Cisco 7200 series routers
- *Cisco IOS Software Release 11.1 and 11.1 CA Caveats*

Online Navigation

The Cisco IOS software documentation set is available as printed manuals or electronic documents. You can access Cisco documentation at Cisco Connection Online (CCO) on the World Wide Web and on the Cisco Documentation CD-ROM:

- Cisco 7200 series manuals and configuration notes:
 - Using a web browser, go to <http://www.cisco.com/>, click **Products & Ordering**, select **Cisco Documentation**, go to **Access Servers and Access Routers**, select **Core/High-End Routers**, and click **Cisco 7200 Series Routers**.
 - On the Documentation CD-ROM, go to **Cisco Product Documentation**, select **Access Servers and Access Routers**, go to **Core/High-End Routers**, and click **Cisco 7200 Series Routers**.

- Cisco IOS documentation set and supporting documents:
 - On Cisco Connection Online (CCO), the path is **Products and Ordering: Documentation: Cisco Documentation: Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.1**.
 - On the Documentation CD, the path is **Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.1**.
- New feature documentation for Cisco IOS 11.1 CC features:
 - On Cisco Connection Online (CCO), the path is **Products and Ordering: Documentation: Cisco Documentation: Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.1: Cisco IOS 11.1 CC New Features**.
 - On the Documentation CD, the path is **Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.1: Cisco IOS 11.1 CC New Features**.

For additional information about the Documentation CD-ROM and CCO, refer to the sections “Cisco Connection Online” and “CD-ROM/WWW Feedback” at the end of these release notes.

Service and Support

The following URL contains links to access helpful tips on configuring your Cisco products:

http://www.cisco.com/kobayashi/serv_tips.shtml

This URL is subject to change without notice. If it changes, point your web browser to **<http://www.cisco.com/>**, and follow this path: **Software & Support, Technical Tips** (button on left margin).

“Hot Tips” are popular tips and hints gathered from the Cisco Technical Assistance Center (TAC). Most of these documents are available from the TAC FAX-on-demand service. To access FAX-on-demand and receive documents at your FAX machine, from the USA, call 888-50-CISCO (888-502-4726). From other areas, call 415-596-4408.

The following sections are provided from the Technical Tips page:

- Field Notices—Designed to provide notification of any critical issues regarding Cisco products. These include problem descriptions, safety or security issues, and hardware defects.
- Hardware—Technical Tips related to specific hardware platforms.
- Internetworking Features—Tips on using and deploying Cisco IOS software features and services.
- Sample Configurations—Actual configuration examples complete with topology and annotations.
- Software Products—MultiNet and Cisco Suite 100, Network Management, Cisco IOS Software Bulletins, and CiscoPro Configurations.
- Special Collections—Other Helpful Documents, Frequently Asked Questions, Security Advisories, References and RFCs, Case Studies, and the CiscoPro Documentation CD-ROM.

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.

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