



Cisco 7200 Series Routers Boot Images Information

Document Revision History

The Document Revision History, beginning with OL-3876-02, records technical changes to this document.

Document Version	Date	Change Summary
OL-3876-07	July, 2007	Adding Cisco 7201 and PA-T3/E3-EC information.
OL-3876-06	December, 2006	Adding PA-MC-T3-EC information, and additional NPE-G1 and NPE-G2 information.
OL-3876-05	November, 2006	Adding VPN Service Adapter information, clarifying VAM support, older I/O controller with newer port adapter information, and clarification of software releases.
OL-3876-04	May, 2006	Adding NPE-G2 and its new boot image information.
OL-3876-03	April, 2006	Adding Cisco IOS Release 12.0(22) S kboot information and Cisco IOS Release 12.0(32)S2 c7200-mboot-mz information.
OL-3876-02	Feb. 3, 2005	Adding PA-POS-1OC3 and SA-VAM2+ information.

The Cisco 7200 series routers have three basic boot images that support different hardware options. The three images are the standard c7200-boot-mz boot image, the c7200-kboot-mz boot image, and the c7200-mboot-mz image. The c7200-kboot-mz image was released in October, 2000 and is larger than the standard c7200-boot-mz image because it supports newer hardware that is not supported in the c7200-boot-mz image.

The c7200-kboot-mz image is too large to fit in the Flash (bootflash) memory of the older I/O controllers and cannot be stored on them; however, the image can be used if stored on an external flash device and the router is configured with the **boot bootldr <device>:<image name>** configuration command. Using newer port adapters—that require the c7200-kboot-mz image—with older I/O controllers that use the standard boot image, can result in a system that is unable to boot from a network (TFTP) server. The



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c7200-mboot-mz image was released in April, 2006 on Cisco IOS Release 12.0(32)S2 and contains support for a small, specific set of port adapters and older I/O controllers. The c7200-mboot-mz image is small enough to fit on older I/O controller Flash (bootflash) memory. The c7200-mboot-mz image is supported on later releases of 12.0(32)S2 also. See the “[c7200-mboot-mz Image Information](#)” section on [page 12](#).

The sections and tables in this document provide information about which I/O controllers, port adapters, and service adapters are supported by each boot image.


Caution

Check both the I/O controller requirements as well as the port adapter requirements to determine if the port adapter is supported on a boot image.

Using newer port adapters—that require the c7200-kboot-mz image—with older I/O controllers that use the standard boot image, can result in a system that is unable to boot from a network (TFTP) server. See [Table 8 on page 7](#) for information on using other devices from which to boot.

The c7200-kboot-mz image is supported in some Cisco IOS releases, such as E and T. It is supported in Cisco IOS Release 12.0 (22) S and later releases of 12.0 S, although PA-A3-8T1IMA and PA-A3-8E1IMA are not supported. This document is intended to give the reader an indication of which port adapters are supported in the standard 12.0 S boot image.

Contents

The following boot image information is in this document:

- [Port Adapters and I/O Controllers, page 3](#)
[Table 1](#) through [Table 14](#) provide information about which port adapters and service adapters and I/O controllers are supported by each boot image.
- [Network Processing Engines, page 11](#)
 This section provides information on which network processing engines are support by each boot image.
- [Cisco 7201 Router, page 11](#)
 This section provides information on the boot image that supports the Cisco 7201 router.
- [c7200-mboot-mz Image Information, page 12](#)
 This section provides a listing of port adapters and I/O controllers supported by the c7200-mboot-mz image.
- Sample boot image output is in the “[Sample Standard Boot Image](#)” section on [page 12](#) and the “[Sample kboot Image](#)” section on [page 13](#).
- The “[Error Messages](#)” section on [page 12](#) provides samples of two error messages.

For additional information on boot images, see the “[Related Documentation](#)” section on [page 13](#).

Port Adapters and I/O Controllers

This section provides boot image information for port adapters and I/O controllers.



Caution

Check both the I/O controller requirements as well as the port adapter requirements to determine if the port adapter is supported on a boot image.

Using newer port adapters—that require the c7200-kboot-mz image—with older I/O controllers that use the standard boot image, can result in a system that is unable to boot from a network (TFTP) server. See [Table 8 on page 7](#) for information on using other devices from which to boot.

Table 1 Acceleration Module

Acceleration Module	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.1E 12.1 T and later releases of 12.T ¹ 12.2 and later releases of 12. ² 12.2B and 12.3B and later releases of 12.2B and 12.3B
C7200 VSA	No	No	No

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 2 ATM Port Adapters

ATM Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.1E 12.1 T and later releases of 12.T ¹ 12.2 and later releases of 12. ² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-A1-OC3MM	Yes	Yes	Yes
PA-A1-OC3SMI	Yes	Yes	Yes
PA-A2-4E1XC-OC3SM	Yes	Yes	Yes
PA-A2-4E1XC-E3ATM	Yes	Yes	Yes
PA-A2-4E1YC-OC3SM	Yes	Yes	Yes
PA-A2-4E1YC-E3ATM	Yes	Yes	Yes
PA-A2-4T1C-OC3SM	Yes	Yes	Yes
PA-A2-4T1C-T3ATM	Yes	Yes	Yes
PA-A3-T3	Yes	Yes	Yes
PA-A3-E3	Yes	Yes	Yes
PA-A3-OC3MM	Yes	Yes	Yes
PA-A3-OC3SMI	Yes	Yes	Yes
PA-A3-OC3SML	Yes	Yes	Yes

Table 2 ATM Port Adapters (continued)

ATM Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-A3-8T11MA	No	No	Yes
PA-A3-8E11MA	No	No	Yes
PA-A6-OC3-MM	No	Yes	Yes
PA-A6-OC3-SMI	No	Yes	Yes
PA-A6-OC3-SML	No	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 3 Channelized Port Adapters

Channelized Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image (12.1 E and later releases of 12.x1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-1C-E	No	Yes	Yes
PA-1C-P	No	Yes	Yes
PA-4C-E ³	No	No	No
PA-FC-1G	No	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

3. PA-4C-E is not supported in either boot image, although it is supported in full Cisco IOS images on the Cisco 7200 platform.

Table 4 *DPT Port Adapters*

DPT Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-SRP-OC12MM	No	Yes	Yes
PA-SRP-OC12SI	No	Yes	Yes
PA-SRP-OC12SML	No	Yes	Yes
PA-SRP-OC12SMX	No	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 5 *FDDI Port Adapters*

FDDI Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-F-MM	Yes	Yes	Yes
PA-F-SM	Yes	Yes	Yes
PA-F/FD-MM	Yes	Yes	Yes
PA-F/FD-SM	Yes	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 6 *Gigabit Ethernet, Fast Ethernet, Ethernet Port Adapters*

Gigabit Ethernet, Fast Ethernet, Ethernet Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-12E/2FE	Yes	Yes	Yes
PA-8E	Yes	Yes	Yes
PA-5EFL	Yes	Yes	Yes
PA-4E	Yes	Yes	Yes
PA-2FEISL-TX	Yes	Yes	Yes
PA-2FEISL-FX	Yes	Yes	Yes

Table 6 *Gigabit Ethernet, Fast Ethernet, Ethernet Port Adapters (continued)*

Gigabit Ethernet, Fast Ethernet, Ethernet Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-FE-TX	Yes	Yes	Yes
PA-FE-FX	Yes	Yes	Yes
PA-100VG	Yes	Yes	Yes
PA-DSIC	Yes	Yes	Yes
PA-GE	Yes	Yes	Yes
PA-2FE-TX	No	Yes	Yes
PA-2FE-FX	No	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 7 *High Speed Serial Port Adapters*

High Speed Serial Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-H (Rev. B)	Yes	Yes	Yes
PA-2H (Rev B)	Yes	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3, and 12.4

Table 8 I/O Controllers¹

I/O Controllers	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.1E 12.1 T and later releases of 12.T ² 12.2 and later releases of 12. ³ 12.2B and 12.3B and later releases of 12.2B and 12.3B
C7200-I/O-FE ⁴	No	No	No
C7200-I/O ⁴	No	No	No
C7200-I/O-GE+E	No	Yes	Yes
C7200-I/O-2FE/E	No	Yes	Yes

- Using newer port adapters—that require the c7200-kboot-mz image—with older I/O controllers that use the standard boot image, can result in a system that is unable to boot from a network (TFTP) server.
- Releases 12.2T, 12.3T, and 12.4T
- Releases 12.3 and 12.4
- The kboot images will not fit on the bootflash on C7200-I/O-E and C7200-I/O, however the kboot image will recognize and function with the I/O controllers. The kboot image needs to be stored on an external flash device (slot0:, slot1:, disk0:, disk1: or disk2:) and then pointed to by the configuration command: `boot bootldr <device>:<image name>`

For information on storing or copying a boot image to an external flash device, see the [CompactFlash Disk, Flash Disk, and Flash Memory Card Information](#) chapter of the *Memory Replacement Instructions for the Network Processing Engine or Network Services Engine and Input/Output Controller* document, and the [Using the Flash Disk](#) document.

Table 9 Multichannel Serial Port Adapters

Multichannel Serial Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.1E 12.1 T and later releases of 12.T ¹ 12.2 and later releases of 12. ² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-CT3/4T1	Yes	Yes	Yes
PA-2CE1/PRI-75	Yes	Yes	Yes
PA-2CE1/PRI-120	Yes	Yes	Yes
PA-2CT1/PRI	Yes	Yes	Yes
PA-MC-E3	Yes	Yes	Yes
PA-MC-T3	Yes	Yes	Yes
PA-MC-2T3+	Yes	Yes	Yes
PA-MC-2E1/120	Yes	Yes	Yes
PA-MC-8E1/120	Yes	Yes	Yes
PA-MC-4T1	Yes	Yes	Yes
PA-MC-8T1	Yes	Yes	Yes
PA-MC-T3-EC	No	No	No
PA-MC-8DSX1	Yes	Yes	Yes

Table 9 *Multichannel Serial Port Adapters (continued)*

Multichannel Serial Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-4B-U	Yes	Yes	Yes
PA-8B-ST	Yes	Yes	Yes
PA-MC-8TE1+	No	Yes	Yes
PA-MC-STM-1	No	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 10 *Serial Port Adapters*

Serial Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-E3	Yes	Yes	Yes
PA-2E3	Yes	Yes	Yes
PA-T3	Yes	Yes	Yes
PA-T3+	Yes	Yes	Yes
PA-2T3	Yes	Yes	Yes
PA-2T3+	Yes	Yes	Yes
PA-T3/E3-EC	No	No	No
PA-4E1G-75	Yes	Yes	Yes
PA-4E1G-120	Yes	Yes	Yes
PA-8T-X21	Yes	Yes	Yes
PA-8T-V35	Yes	Yes	Yes
PA-8T-232	Yes	Yes	Yes
PA-4T	Yes	Yes	Yes
PA-4T+	Yes	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 11 **Service Adapters**

Service Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.x E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
SA-Comp/1	Yes	Yes	Yes
SA-Comp/4	Yes	Yes	Yes
SA-Encyrpt	No	Yes	Yes
SA-ISA (DES/3DES)	No	Yes	Yes
SA-VAM	No	Yes ³	Yes ³
SA-VAM2	No	Yes ³	Yes ³
SA-VAM2+	No	Yes ³	Yes ³
C7200 VSA (see Table 1)			

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

3. The mboot, kboot, and boot images do not support any encryption features. These cards are listed as not supported in the *boot images. However, the cards may be recognized, or an error message may be printed, depending on the card that is installed.

Table 12 **SONET Port Adapters**

SONET Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-POS-1OC3	No	Yes	Yes
PA-POS-2OC3	No	Yes	Yes
PA-POS-OC3-MM	Yes	Yes	Yes
PA-POS-OC3SMI	Yes	Yes	Yes
PA-POS-OC3SML	Yes	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T

2. Releases 12.3 and 12.4

Table 13 *Token Ring Port Adapters*

Token Ring Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-4R	Yes	Yes	Yes
PA-4R-FDX	Yes	Yes	Yes
PA-4R-DTR	Yes	Yes	Yes

1. Releases 12.2T, 12.3T, and 12.4T
2. Releases 12.3 and 12.4

Table 14 *Voice Port Adapters*

Voice Port Adapters	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12. 1E 12.1 T and later releases of 12.T¹ 12.2 and later releases of 12.² 12.2B and 12.3B and later releases of 12.2B and 12.3B
PA-MCX-2TE1	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-MCX-4TE1	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-MCX-8TE1	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-MCX-8TE1+	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXA-1TE1-24+	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXA-1TE1-30+	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXB-2TE1	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXC-2TE1	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXB-2TE1+	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²
PA-VXC-2TE1+	No	No	Supported only on 12.1T and later releases of 12.T ¹ and 12.2 and later releases of 12. ²

1. Releases 12.2T, 12.3T, and 12.4T
2. Releases 12.3 and 12.4

Network Processing Engines

This section provides boot image information for the network processing engines, NPE-G1—[Table 15](#), and NPE-G2—router, [Table 16](#).

Table 15 *NPE-G1¹*

Network Processing Engine	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.1 E 12.1 T and later releases of 12.T ² 12.2 and later releases of 12. ³ 12.2B and 12.3B and later releases of 12.2B and 12.3B
NPE-G1 ⁴	No	Yes [12.0(28)S]	Yes [12.0(28)S]

1. Only network processing engines beginning with the NPE-G1 carry I/O controller functionality.
2. Releases 12.2T, 12.3T, and 12.4T
3. Releases 12.3 and 12.4
4. When no I/O controller is present in a Cisco 7200 VXR chassis with an NPE-G1 or NPE-G2 installed, the NPE-G1 or NPE-G2 takes over the functionality of the I/O controller.



Note

The NPE-G2 kboot image begin with c7200p. This is different from the previous Cisco 7200 series routers boot image naming conventions. See [Table 16](#) below.

Table 16 *NPE-G2*

Network Processing Engine-	Supported on Standard c7200-boot-mz Image (12.0 S)	Supported on c7200-kboot-mz Image (12.0 (22) S and later releases of 12.0 S)	Supported on c7200-kboot-mz Image 12.1 E and later releases of 12.x1E 12.1 T and later releases of 12.T ¹ 12.2 and later releases of 12. ² 12.2B and 12.3B and later releases of 12.2B and 12.3B	Supported on c7200p-kboot-mz image 12.4(11)T and later releases of 12.4T 12.2(31) SB and later releases of 12.2SB 12.4XD and later releases of 12.4XD 12.2XN and later releases of 12.2XN
NPE-G2	No	No	No	Yes ³

1. Releases 12.2T, 12.3T, and 12.4T
2. Releases 12.3 and 12.4
3. The VPN Service Adapter (VSA) is not supported on the c7200p-kboot-mz image.

Cisco 7201 Router

The Cisco 7201 router uses the same boot image as the NPG-G2— c7200p-kboot-mz on the following Cisco IOS Releases:

- Cisco IOS Release12.4(4)XD7 and later releases.
- Cisco IOS Release12.2(31)SB5 and later releases.
- Cisco IOS Release12.4(15T1 and later releases.

c7200-mboot-mz Image Information

The c7200-mboot-mz image was released in April, 2006 on Cisco IOS Release 12.0(32)S2 and contains support for a small, specific set of port adapters and older I/O controllers. The c7200-mboot-mz image is small enough to fit on older I/O controller Flash (bootflash) memory. The c7200-mboot-mz image is supported on later releases of 12.0(32)S also.

Only the following port adapters and I/O controllers are supported on the c7200-mboot-mz image:

- PA-A3-OC3
- PA-A6-OC3
- PA-2FE
- PA-FE
- PA-MC-4T1
- PA-POS-OC3
- PA-4E
- PA-8E
- C7200-I/O
- C7200-I/O-FE
- C7200-I/O-2FE/E
- C7200-I/O-GE/E

Error Messages

The following error messages are displayed on bootup when a new I/O controller is used with the standard boot image (c7200-boot-mz).

The following error message is displayed with the C7200-I/O-2FE/E I/O controller and the standard boot image (c72000-boot-mz):

```
%C7200-3-IONOTSUPPORTEDBYLOADER:I/O Controller (type 533) is not supported by this boot loader. The I/O Controller network interfaces will be unavailable.
```

The following error message is displayed with the Cisco 7200-I/O-GE/E I/O controller and the standard boot image (c72000-boot-mz):

```
%C7200-3-IONOTSUPPORTEDBYLOADER:I/O Controller (type 534) is not supported by this boot loader. The I/O Controller network interfaces will be unavailable.
```

Sample Standard Boot Image

```
Router# copy tftp bootflash:
Address or name of remote host []? 0.0.0
Source filename []? c7200-boot-mz.120-5.S
Destination filename [c7200-boot-mz.120-5.S]?
Accessing tftp://biff/c7200-boot-mz.120.S...
Loading c7200-boot-mz.120-5.S from 000.000.000.000 (via Ethernet 4/0):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

```

!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

[OK - 3132516/6264832 bytes]

3132516 bytes copied in 28.488 secs (111875 bytes/sec)

```

Sample kboot Image

```

Router# copy tftp bootflash:
Address or name of remote host []? 0.0.0
Source filename []? c7200-kboot-mz.122-4.BW
Destination filename [c7200-kboot-mz.122-4.BW]?
Loading c7200-kboot-mz.122-4.BW from 000.000.000.000 (via GigabitEthernet0/3):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

[OK - 5137928/10275840 bytes]

5137928 bytes copied in 45.420 secs (114176 bytes/sec)

```

Related Documentation

- Complex configuration procedures are beyond the scope of this publication and can be found in the modular configuration and modular command reference publications in the Cisco IOS software configuration documentation set that corresponds to the software release installed on your Cisco hardware.
- For more information about Boot Images, see *Field Notice: Oversized Cisco 7200/uBR 7200 Boot Image*, at <http://www.cisco.com/en/US/partner/ts/fn/610/fn61128.html>
- For field-replaceable units (FRUs) documentation, see the Field-Replaceable Units section on the Cisco 7200 VXR Product Overview page at: http://www.cisco.com/en/US/docs/routers/7200/install_and_upgrade/7200vrx_install_config/5013ov.html
- For port adapter documentation, see http://www.cisco.com/en/US/partner/docs/routers/7200/roadmaps/7200_series_port_adapter_doc_roadmap/3530.html
- For troubleshooting information, see http://www.cisco.com/en/US/docs/routers/7200/roadmaps/7200_series_trblshoot_doc_roadmap/3518.html
- For international agency compliance, safety, and statutory information for wide-area network (WAN) interfaces for the Cisco 7200 VXR series routers, refer to the document *Cisco 7200 Regulatory Compliance and Safety Information* at http://www.cisco.com/en/US/partner/docs/routers/7200/install_and_upgrade/regulatory_compliance_7200/3419pnc6.html

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised technical documentation at: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>.

This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

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