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Release Notes for Cisco IOS Release 11.3(4)T Feature Packs for Cisco 2600 Series Routers

August 3, 1998

These release notes describe the Cisco IOS Release 11.3(4)T feature packs for Cisco 2600 series routers.

These release notes contain the following topics:

- “Introduction” section on page 1
- “System Requirements” section on page 15
- “Installation Notes” section on page 17
- “Related Documentation” section on page 22
- “Service and Support” section on page 26
- “Cisco Connection Online” section on page 26
- “Documentation CD-ROM” section on page 27

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 2600 Series Feature Packs,” to identify your feature pack and the memory required for your feature set, based on the image you load.

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- 3 Use Table 5, “Cisco 2600 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 Tables” 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 Tables

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)
 - Trivial File Transfer Protocol (TFTP) server application (for Windows 95)
- *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 “Alternatives to the RSL” section on page 18.

Before running the RSL, read the “Installing Software Images Using RSL” section on page 17. If you are loading software on a preconfigured router, you should save the router configuration file on your PC before beginning the image download process, as described in *Getting Started with the Router Software Loader*.

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
CD26-C-11.3=	Cisco 2600 IP Feature Pack
CD26-CP-11.3=	Cisco 2600 IP Plus Feature Pack

Table 1 Feature Pack Product Numbers Quick-Reference List (continued)

Product Number	Feature Pack Description
CD26-CW-11.3=	Cisco 2600 IP Plus 40 Feature Pack ¹
CD26-CY-11.3=	Cisco 2600 IP Plus 56 Feature Pack ¹
CD26-CL-11.3=	Cisco 2600 IP Plus IPSEC 56 Feature Pack ¹
CD26-B-11.3=	Cisco 2600 IP/IPX/AT/DEC Feature Pack
CD26-E-11.3=	Cisco 2600 Remote Access Server Feature Pack
CD26-BP-11.3=	Cisco 2600 IP/IPX/AT/DEC Plus Feature Pack
CD26-AP-11.3=	Cisco 2600 Enterprise Plus Feature Pack
CD26-AW-11.3=	Cisco 2600 Enterprise Plus 40 Feature Pack ¹
CD26-AY-11.3=	Cisco 2600 Enterprise Plus 56 Feature Pack ¹
CD26-AL-11.3=	Cisco 2600 Enterprise Plus IPSEC 56 Feature Pack ¹
CD26-ANP-11.3=	Cisco 2600 Enterprise Plus/APPN Plus Feature Pack
CD26-ANW-11.3=	Cisco 2600 Enterprise Plus/APPN Plus 40 Feature Pack ¹
CD26-ANY-11.3=	Cisco 2600 Enterprise Plus/APPN Plus 56 Feature Pack ¹
CD26-ANY-11.3=	Cisco 2600 Enterprise Plus/APPN Plus IPSEC 56 Feature Pack ¹

¹ This feature pack contains encryption images.

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 2600 Series Feature Packs

Product Number	CD-ROM Title	Image Name (UNIX)	Image Name (DOS)	Flash Memory Required	Main Memory Required	RSL Installer Description
CD26-C-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-i-mz.113-4.T	80273404	4 MB	16 MB	Cisco IOS 2600 Series IP Feature Set 11.3(4)T
CD26-CP-11.3=	Cisco 2600 IP Plus Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-is-mz.113-4.T	80273H304	8 MB	20 MB	Cisco IOS 2600 Series IP Plus Feature Set 11.3(4)T
CD26-CW-11.3=	Cisco 2600 IP Plus 40 Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-is40-mz.113-4.T	80273204	8 MB	24 MB	Cisco IOS 2600 Series IP Plus 40 Feature Set 11.3(4)T
CD26-CY-11.3=	Cisco 2600 IP Plus 56 Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-is56-mz.113-4.T	80288404	8 MB	24 MB	Cisco IOS 2600 Series IP Plus 56 Feature Set 11.3(4)T

Table 2 Cisco 2600 Series Feature Packs (continued)

Product Number	CD-ROM Title	Image Name (UNIX)	Image Name (DOS)	Flash Memory Required	Main Memory Required	RSL Installer Description
CD26-CL-11.3=	Cisco 2600 IP Plus IPSEC 56 Release 11.3(4)T RSL Version 7.1	c2600-is56i-mz.113-4.T	80288204	8 MB	24 MB	Cisco IOS 2600 Series IP Plus IPSEC Feature Set 11.3(4)T
CD26-B-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-d-mz.113-4.T	80273804	8 MB	16 MB	Cisco IOS 2600 Series IP/IPX/AT/DEC Feature Set 11.3(4)T
CD26-E-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-c-mz.113-4.T	80274004	4 MB	16 MB	Cisco IOS 2600 Series Remote Access Server Feature Set 11.3(4)T
CD26-BP-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-ds-mz.113-4.T	80273604	8 MB	24 MB	Cisco IOS 2600 Series IP/IPX/AT/DEC Plus Feature Set 11.3(4)T
CD26-AP-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-js-mz.113-4.T	80288004	8 MB	24 MB	Cisco IOS 2600 Series Enterprise Plus Feature Set 11.3(4)T
CD26-AW-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-js40-mz.113-4.T	80287804	8 MB	24 MB	Cisco IOS 2600 Series Enterprise Plus 40 Feature Set 11.3(4)T
CD26-AY-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-js56-mz.113-4.T	80287604	8 MB	24 MB	Cisco IOS 2600 Series Enterprise Plus 56 Feature Set 11.3(4)T
CD26-AL-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-js56i-mz.113-4.T	80287404	8 MB	32 MB	Cisco IOS 2600 Series Enterprise Plus IPSEC 56 Feature Set 11.3(4)T
CD26-ANP-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-ajs-mz.113-4.T	80274804	8 MB	32 MB	Cisco IOS 2600 Series Enterprise/APPN Plus Feature Set 11.3(4)T
CD26-ANW-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-ajs40-mz.113-4.T	80274604	8 MB	32 MB	Cisco IOS 2600 Series Enterprise/APPN Plus 40 Feature Set 11.3(4)T

Table 2 Cisco 2600 Series Feature Packs (continued)

Product Number	CD-ROM Title	Image Name (UNIX)	Image Name (DOS)	Flash Memory Required	Main Memory Required	RSL Installer Description
CD26-ANY-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-ajs56-mz.113-4.T	80274404	16 MB	32 MB	Cisco IOS 2600 Series Enterprise/APPN Plus 56 Feature Set 11.3(4)T
CD26-ANL-11.3=	Cisco 2600 IP Feature Pack Release 11.3(4)T RSL Version 7.1	c2600-ajs56i-mz.113-4.T	80274204	16 MB	32 MB	Cisco IOS 2600 Series Enterprise/APPN Plus IPSEC 56 Feature Set 11.3(4)T

Feature Set Tables

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:

- Plus—Value-added feature set with additional features.
- Plus 40—Value-added feature set with additional features, including 40-bit data encryption.
- Plus 56—Value-added feature set with additional features, including 56-bit data encryption.

Cisco IOS images with strong encryption (including, but not limited to, 56-bit DES) are subject to U.S. government export controls and have a limited distribution. Images to be installed outside the U.S. require an export license. Customer orders might be denied or subject to delay due to U.S. government regulations. Contact your sales representative or distributor for more information, or send e-mail to export@cisco.com.

The following list shows which feature sets are supported on the Cisco 2600 series routers. These feature sets only apply to Cisco IOS Release 11.3 T:

- IP
- IP Plus
- IP Plus 40
- IP Plus 56
- IP Plus IPSEC 56 (IP Security)
- IP/IPX/AT/DEC
- Remote Access Server
- IP/IPX/AT/DEC Plus
- Enterprise Plus
- Enterprise Plus 40
- Enterprise Plus 56
- Enterprise Plus IPSEC 56
- Enterprise/APPN Plus
- Enterprise/APPN Plus 40

- Enterprise/APPN Plus 56
- Enterprise/APPN Plus IPSEC 56

Note The Plus 40 and Plus 56 encryption images listed above are not available in Releases 11.3(1)T and 11.3(2)T; they are available in Release 11.3(4)T and later 11.3 T releases.

To determine what features are available with each feature set, see Table 3 and Table 4.

- Table 3, “Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1” describes the features supported on IP, IP Plus, IP Plus 40, IP Plus 56, IP Plus IPsec 56, IP/IPX/AT/DEC, and IP/IPX/AT/DEC Plus feature sets.
- Table 4, “Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2” describes which features are supported on Enterprise Plus, Enterprise Plus 40, Enterprise Plus 56, Enterprise Plus IPsec 56, Enterprise/APPN Plus, Enterprise/APPN Plus 40, Enterprise/APPN Plus 56, Enterprise/APPN Plus IPsec 56, and Remote Access Server.

Feature Set Matrix Term	Description
Yes	This feature is offered.
No	This feature is not offered.
In	The “In” column lists the Cisco IOS release that first introduces a feature. For example, (2) means a feature is introduced in 11.3(2)T. If a cell is empty in this column, the feature was included in the initial, base release.

Table 3 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1

Feature	Feature Added at Maint. Rel. No.	Feature Set						
		IP	IP Plus	IP Plus 40	IP Plus 56	IP Plus IPSEC 56	IP/IPX/AT/DEC	IP/IPX/AT/DEC Plus
IBM Support								
APPN High Performance Routing	(3)T	No	No	No	No	No	No	No
APPN MIB Enhancements	(3)T	No	No	No	No	No	No	No
APPN over Ethernet LAN Emulation	(3)T	No	No	No	No	No	No	No
APPN Modularity Enhancements	(3)T	No	No	No	No	No	No	No
APPN Scalability Enhancements	(3)T	No	No	No	No	No	No	No

Table 3 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1

Feature	Feature Added at Maint. Rel. No.	Feature Set						
		IP	IP Plus	IP Plus 40	IP Plus 56	IP Plus IPSEC 56	IP/IPX/ AT/DEC	IP/IPX/ AT/DEC Plus
Bisync Enhancements, includes: — Bisync 3780 Support — BSC Extended Addressing — Block Serial Tunneling (BSTUN) over Frame Relay	(3)T	No	Yes	Yes	Yes	Yes	No	Yes
Cisco MultiPath Channel (CMPC)	—	No	No	No	No	No	No	No
DLSw+ Enhancements, includes: — Backup Peer Extensions for Encapsulation Types — DLSw+ Border Peer Caching — DLSw+ MIB Enhancements — DLSw+ SNA Type of Service — LLC2-to-SDLC Conversion between PU4 Devices — NetBIOS Dial-on-Demand Routing — RIF Passthru — UDP Unicast Enhancement	(3)T	No	Yes	Yes	Yes	Yes	No	Yes
FRAS Enhancements, includes: — FRAS Boundary Network Node Enhancement — FRAS Dial Backup over DLSw+ — FRAS DLCI Backup — FRAS Host — FRAS MIB — SRB over Frame Relay	(3)T	No	Yes	Yes	Yes	Yes	No	Yes
TN3270 LU Nailing	—	No	No	No	No	No	No	No
TN3270 Server Enhancements	—	No	No	No	No	No	No	No
Token Ring LANE	—	No	No	No	No	No	No	No
Tunneling of Asynchronous Security Protocols	(3)T	Yes	Yes	Yes	Yes	Yes	No	Yes
Internet								
DRP Server Agent	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DRP Server Agent Enhancements	(2)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Routing								
Easy IP (Phase 1)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hot Standby Router Protocol (HSRP) over ISL in Virtual LAN Configurations	(3)T	No	Yes	Yes	Yes	Yes	Yes	Yes

Table 3 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1

Feature	Feature Added at Maint. Rel. No.	Feature Set						
		IP	IP Plus	IP Plus 40	IP Plus 56	IP Plus IPSEC 56	IP/IPX/AT/DEC	IP/IPX/AT/DEC Plus
IP Enhanced IGRP Route Authentication	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Type of Service and Precedence for GRE Tunnels	(4)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TCP Enhancements, includes: — TCP Selective Acknowledgment — TCP Timestamp	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LAN Support								
AppleTalk Access List Enhancements	(3)T	No	No	No	No	No	Yes	Yes
DECnet Accounting	(3)T	No	No	No	No	No	Yes	Yes
IPX Named Access Lists	(3)T	No	No	No	No	No	Yes	Yes
IPX SAP-after-RIP	(3)T	No	No	No	No	No	Yes	Yes
NLSP Enhancements	(3)T	No	No	No	No	No	No	No
NLSP Multicast Support	(3)T	No	No	No	No	No	Yes	Yes
Management								
Cisco Call History MIB Command Line Interface	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco IOS Internationalization	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Entity MIB (Phase I)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMPv2C	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMP Inform Requests	(2)XA1	No	No	No	No	No	No	No
Virtual Profiles	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VPDN MIB	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Multimedia								
IP Multicast Load Splitting across Equal-Cost Paths	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Multicast over ATM Point-to-Multipoint Virtual Circuits	(2)XA1	No	Yes	Yes	Yes	Yes	No	Yes
IP Multicast over Token Ring LANs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PIM Version 2	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stub IP Multicast Routing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Voice over IP	(2)XA1	No	Yes	Yes	Yes	Yes	No	Yes
Quality of Service								
RTP Header Compression	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
Named Method Lists for AAA Authorization & Accounting	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 3 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1

Feature	Feature Added at Maint. Rel. No.	Feature Set						
		IP	IP Plus	IP Plus 40	IP Plus 56	IP Plus IPSEC 56	IP/IPX/AT/DEC	IP/IPX/AT/DEC Plus
Authenticating ACLs Featurette	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Automated Double Authentication	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Certificate Authority Interoperability	(3)T	No	No	No	No	Yes	No	No
Encrypted Kerberized Telnet	(3)T	No	No	No	No	No	No	No
HTTP Security	(1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internet Key Exchange Security Protocol	(3)T	Yes	Yes	No	No	No	Yes	Yes
MS-CHAP Support	(3)T	No	No	No	No	No	No	No
Per-User Configuration	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reflexive Access Lists	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subblock (Phase II)	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TCP Intercept	(3)T	No	No	No	No	No	No	No
Vendor-Proprietary RADIUS Attributes	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Switching								
AppleTalk Routing over ISL and IEEE 802.10 in Virtual LANs	(3)T	No	No	No	No	No	Yes	Yes
CLNS and DECnet Fast Switching over PPP	(3)T	No	No	No	No	No	No	No
DECnet/VINES/XNS over ISL, includes:	(3)T	No	No	No	No	No	No	No
— Banyan VINES Routing over ISL Virtual LANs								
— DECnet Routing over ISL Virtual LANs								
— XNS Routing over ISL Virtual LANs								
Fast-Switched Policy Routing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPX Routing over ISL Virtual LANs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VIP Distributed Switching Support for IP Encapsulated in ISL	—	No	No	No	No	No	No	No
Terminal Services								
Virtual Templates for Protocol Translation	(3)T	No	No	No	No	No	No	No
WAN Optimization								
ATM MIB Enhancements	—	No	No	No	No	No	No	No
PAD Enhancements	(3)T	No	No	No	No	No	No	No
PAD Subaddressing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WAN Services								
Always On/Dynamic ISDN	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 3 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 1

Feature	Feature Added at Maint. Rel. No.	Feature Set						
		IP	IP Plus	IP Plus 40	IP Plus 56	IP Plus IPSEC 56	IP/IPX/AT/DEC	IP/IPX/AT/DEC Plus
Bandwidth Allocation Control Protocol (BACP)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dialer Watch	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enhanced Local Management Interface (ELMI)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay Enhancements	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay MIB Extensions	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay Router ForeSight	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN Advice of Charge	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN Caller ID Callback	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN Multiple Switch Type	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN NFAS	—	No	No	No	No	No	No	No
Layer 2 Forwarding—Fast Switching	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Leased Line ISDN at 128 kbps	(1)	Yes	Yes	No	No	No	Yes	Yes
Microsoft Point-to-Point Compression	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MS Callback	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
National ISDN Switch Types for BRI and PRI (NI2)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PPP over ATM	—	No	No	No	No	No	No	No
8/16 A/D Modem Network Module	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stacking Home Gateway Featurette	(3)T	No	Yes	Yes	Yes	Yes	No	Yes
Telnet Extensions for Dialout	(1)	No	No	No	No	No	No	No
X.25 Protocol Engine	(3)T	Yes	Yes	No	No	No	Yes	Yes
X.25 on ISDN D-Channel	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
X.25 Switching between PVCs and SVCs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes
X.28 Emulation	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2

Feature	Feature Added at Maint. Rel. No.	Feature Set								
		Enterprise Plus	Enterprise Plus 40	Enterprise Plus 56	Enterprise Plus IPSE C 56	Enterprise/APPN Plus	Enterprise/APPN Plus 40	Enterprise/APPN Plus 56	Enterprise/APPN Plus IPSEC 56	Remote Access Server
IBM Support										
APPN High Performance Routing	(3)T	No	No	No	No	Yes	Yes	Yes	No	No
APPN MIB Enhancements	(3)T	No	No	No	No	Yes	Yes	Yes	No	No
APPN over Ethernet LAN Emulation	(3)T	No	No	No	No	Yes	Yes	Yes	No	No
APPN Modularity Enhancements	(3)T	No	No	No	No	Yes	Yes	Yes	No	No
APPN Scalability Enhancements	(3)T	No	No	No	No	Yes	Yes	Yes	No	No
Bisync Enhancements, includes:	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
— Bisync 3780 Support										
— BSC Extended Addressing										
— Block Serial Tunneling (BSTUN) over Frame Relay										
Cisco MultiPath Channel (CMPC)	—	No	No	No	No	No	No	No	No	No
DLSw+ Enhancements, includes:	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
— Backup Peer Extensions for Encapsulation Types										
— DLSw+ Border Peer Caching										
— DLSw+ MIB Enhancements										
— DLSw+ SNA Type of Service										
— LLC2-to-SDLC Conversion between PU4 Devices										
— NetBIOS Dial-on-Demand Routing										
— RIF Passthru										
— UDP Unicast Enhancement										
FRAS Enhancements, includes:	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
— FRAS Boundary Network Node Enhancement										
— FRAS Dial Backup over DLSw+										
— FRAS DLCI Backup										
— FRAS Host										
— FRAS MIB										
— SRB over Frame Relay										
TN3270 LU Nailing	—	No	No	No	No	No	No	No	No	No
TN3270 Server Enhancements	—	No	No	No	No	No	No	No	No	No

Table 4 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2

Feature	Feature Added at Maint. Rel. No.	Feature Set								
		Enterprise Plus	Enterprise Plus 40	Enterprise Plus 56	Enterprise Plus IPSEC 56	Enterprise/APPN Plus	Enterprise/APPN Plus 40	Enterprise/APPN Plus 56	Enterprise/APPN Plus IPSEC 56	Remote Access Server
Token Ring LANE	—	No	No	No	No	No	No	No	No	No
Tunneling of Asynchronous Security Protocols	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Internet										
DRP Server Agent	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
DRP Server Agent Enhancements	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IP Routing										
Easy IP (Phase 1)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hot Standby Router Protocol (HSRP) over ISL in Virtual LAN Configurations	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IP Enhanced IGRP Route Authentication	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IP Type of Service and Precedence for GRE Tunnels	(4)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TCP Enhancements, includes: — TCP Selective Acknowledgment — TCP Timestamp	(3)T	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
LAN Support										
AppleTalk Access List Enhancements	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
DECnet Accounting	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IPX Named Access Lists	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPX SAP-after-RIP	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NLSP Enhancements	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
NLSP Multicast Support	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Management										
Cisco Call History MIB Command Line Interface	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cisco IOS Internationalization	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Entity MIB (Phase I)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMPv2C	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SNMP Inform Requests	(1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Virtual Profiles	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VPDN MIB	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2

Feature	Feature Set									
	Feature Added at Maint. Rel. No.	Enterprise Plus	Enterprise Plus 40	Enterprise Plus 56	Enterprise Plus IPSEC 56	Enterprise/APPN Plus	Enterprise/APPN Plus 40	Enterprise/APPN Plus 56	Enterprise/APPN Plus IPSEC 56	Remote Access Server
Multimedia										
IP Multicast Load Splitting across Equal-Cost Paths	(3)T	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes
IP Multicast over ATM Point-to-Multipoint Virtual Circuits	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IP Multicast over Token Ring LANs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PIM Version 2	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stub IP Multicast Routing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Voice over IP	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Quality of Service										
RTP Header Compression	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security										
Named Method Lists for AAA Authorization & Accounting	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Authenticating ACLs Featurette	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Automated Double Authentication	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Certificate Authority Interoperability	(3)T	No	No	No	Yes	No	No	No	Yes	No
Encrypted Kerberized Telnet	(3)T	No	No	Yes	Yes	No	No	Yes	Yes	No
HTTP Security	(1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Internet Key Exchange Security Protocol	(3)T	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MS-CHAP Support	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Per-User Configuration	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Reflexive Access Lists	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subblock (Phase II)	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TCP Intercept	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Vendor-Proprietary RADIUS Attributes	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Switching										
AppleTalk Routing over ISL and IEEE 802.10 in Virtual LANs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLNS and DECnet Fast Switching over PPP	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2

Feature	Feature Added at Maint. Rel. No.	Feature Set								
		Enterprise Plus	Enterprise Plus 40	Enterprise Plus 56	Enterprise Plus IPSEC 56	Enterprise/APPN Plus	Enterprise/APPN Plus 40	Enterprise/APPN Plus 56	Enterprise/APPN Plus IPSEC 56	Remote Access Server
DECnet/VINES/XNS over ISL, includes:	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
— Banyan VINES Routing over ISL Virtual LANs										
— DECnet Routing over ISL Virtual LANs										
— XNS Routing over ISL Virtual LANs										
Fast-Switched Policy Routing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IPX Routing over ISL Virtual LANs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
VIP Distributed Switching Support for IP Encapsulated in ISL	—	No	No	No	No	No	No	No	No	No
Terminal Services										
Virtual Templates for Protocol Translation	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WAN Optimization										
ATM MIB Enhancements	—	No	No	No	No	No	No	No	No	No
PAD Enhancements	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PAD Subaddressing	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WAN Services										
Always On/Dynamic ISDN	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bandwidth Allocation Control Protocol (BACP)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Dialer Watch	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Enhanced Local Management Interface (ELMI)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay Enhancements	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay MIB Extensions	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Frame Relay Router ForeSight	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN Advice of Charge	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN Caller ID Callback	(3)T	Yes	Yes	Yes	Yes	Yes	No	No	No	No
ISDN Multiple Switch Type	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ISDN NFAS	—	No	No	No	No	No	No	No	No	No
Layer 2 Forwarding—Fast Switching	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Leased Line ISDN at 128 kbps	(1)	Yes	No	No	No	Yes	No	No	No	No

Table 4 Cisco IOS Software Feature Sets for the Cisco 2600 Series, Part 2

Feature	Feature Added at Maint. Rel. No.	Feature Set								
		Enterprise Plus	Enterprise Plus 40	Enterprise Plus 56	Enterprise Plus IPSEC 56	Enterprise Plus APPN Plus	Enterprise Plus APPN Plus 40	Enterprise Plus APPN Plus 56	Enterprise Plus APPN Plus IPSEC 56	Remote Access Server
Microsoft Point-to-Point Compression	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MS Callback	(2)XA1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
National ISDN Switch Types for BRI and PRI (NI2)	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PPP over ATM	—	No	No	No	No	No	No	No	No	No
8/16 A/D Modem Network Module	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Stacking Home Gateway Featurette	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Telnet Extensions for Dialout	(1)	No	No	No	No	No	No	No	No	Yes
X.25 Protocol Engine	(3)T	Yes	No	No	No	Yes	No	No	No	Yes
X.25 on ISDN D-Channel	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
X.25 Switching between PVCs and SVCs	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
X.28 Emulation	(3)T	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

System Requirements

This section describes the following:

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

Memory Requirements

Table 5 lists the memory delivered by default and the available memory upgrades.

Table 5 Cisco 2600 Series Default Memory and Upgrade Options

Memory Type	Cisco 2600 Series Defaults	Upgrade Options
Flash memory card	4 MB	4 to 8 MB upgrade: MEM2600-4U8FS 4 to 16 MB upgrade: MEM2600-4U16FS 8 to 16 MB upgrade: MEM2600-8U16FS
DRAM	16 MB	16 to 20 MB upgrade: MEM2600-16U20D 16 to 24 MB upgrade: MEM2600-16U24D 16 to 32 MB upgrade: MEM2600-16U32D 16 to 48 MB upgrade: MEM2600-16U48D 16 to 64 MB upgrade: MEM2600-16U64D

Hardware Supported

The Router Software Loader (RSL) Version 7.1 supports many Cisco routers. Specific to the Cisco 2600 series routers, RSL 7.1 supports both the Cisco 2610 and Cisco 2611.

Software Compatibility

The feature packs described in these release notes contain Cisco IOS Release 11.3(4)T software images, some earlier images, and the Router Software Loader (RSL) Version 7.1. Before running RSL, read the “Installing Software Images Using RSL” section on page 17.

Determining Your Software Release

To view the version of Cisco IOS software that is running on your Cisco 2600 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) 2600 Software (C2600-BNR2SY-L), Version 11.3(4)T, RELEASE SOFTWARE
```

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

Installation Notes

This section provides solutions to problems you might encounter when using the RSL to load Cisco IOS software on a router. It also includes instructions on installing the software using the console or auxiliary port or a TFTP server.

Installing Software Images Using RSL

This section describes some 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 if you are unable to connect to your access server or 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 access server:

```
"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 access server.

- You are connecting to an access server 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), due to 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 by 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 the router is connected, select **Download Router Configuration** in the Router Software Loader dialog box.
- Step 6** Select the appropriate file, and click the radio button beside **Copy configuration to the router 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 configuration register (**config-register 0xnnnn**) is not restored.

Note If you press **Ctrl-Alt-Delete** to terminate the RSL, the router configuration and configuration register are not restored. However, in this case the configuration file is not deleted from the PC, so you can restore it using the previous steps, beginning with Step 2.

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 Address Resolution Protocol (ARP) table, one or more of them might be deleted by the RSL. You need to manually re-enter any deleted entries in the PC ARP table.
- If the router's running configuration at connection time is not the same as its startup configuration, the exact configuration is not restored. Any changes that you have made since the last time a **copy running-config startup-config** or **write memory** command was entered are lost.
- The RSL restores the router's startup configuration, but some running configuration commands are not restored. To restore the exact running configuration, reboot the router. The following interface configuration commands are not restored to the running configuration: **no shutdown**, **no ringspeed**, and **media-type aui**.

Alternatives to the RSL

The RSL is designed to work with a PC running Microsoft Windows 95 and is the recommended method for downloading software to the router. The booklet included with the CD-ROM explains how to perform this simple install process. However, two alternatives are available for installing router software:

- Using the console or auxiliary port
- Using a TFTP server application

Installing the Router Software Using the Console or Auxiliary Port

This section explains how to use the **copy xmodem flash** command to install the router software from the CD-ROM onto the router.

Note The transfer takes place only on the port at which you issue the command. If you download via the console, all console output is discarded for the duration of the transfer. You can only download files to the router; you cannot copy files from the router. Cisco recommends using the auxiliary port for this type of software download. The auxiliary port has hardware flow control and full modem control. In addition, the transfer does not occupy the system console.

The following example shows how to use the **copy xmodem flash** command on a Cisco 2600 series router.

```
Router# copy xmodem flash
**** WARNING ****
x/modem is a slow transfer protocol limited to the current speed
settings of the auxiliary/console ports. The use of the auxiliary
port for this download is strongly recommended.
During the course of the download no exec input/output will be
available.
-----
Proceed? [confirm] yes
Use crc block checksumming? [confirm] yes
Max Retry Count [10]:
Perform image validation checks? [confirm] yes
Xmodem download using crc checksumming with image validation
Continue? [confirm] yes
Partition  Size  Used    Free    Bank-Size  State      Copy Mode
  1         4096K  3259K   836K     4096K     Read/Write Direct
  2         4096K   0K     4095K   4096K     Read/Write Direct

[Type ?<no> for partition directory; ? for full directory; q to abort]
Which partition? [default = 1] 2

System flash directory, partition 2:
File Length  Name/status
  1    68    TESTFILE
[132 bytes used, 4194172 available, 4194304 total]
Destination file name? c2611-i-mz.0918
Erase flash device before writing? [confirm] yes
Flash contains files. Are you sure you want to erase? [confirm] yes

Copy '' from server
  as 'c2611-i-mz.0918' into Flash WITH erase? [yes/no] yes
Erasing device... eeeeeeeeeeeeeeeeeee ...erased
Ready to receive file.....C
Verifying checksum... OK (0x5DE8)
Flash device copy took 00:12:06 [hh:mm:ss]
```

Installing the Router Software Using a TFTP Server Application

Use this TFTP server application method 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 router 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. Use the RSL or the TFTP server included on the feature pack CD-ROM to install the router 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 available as shareware from public sources on the World Wide Web.

Note To use an rcp application, follow the same procedure, and substitute “rcp” for “TFTP” in the instructions. Use the **copy rcp flash** command instead of the **copy tftp flash** command.

- Step 1** Install any TFTP server application on the PC. (A PC application is included on the feature pack CD-ROM for Microsoft Windows 95 only.)
- Step 2** Launch the TFTP server application on the PC, usually by double-clicking the application icon or its *.exe filename.
- Step 3** Set up the PC as a TFTP server by using the TFTP server application setup or configuration facility.

Most TFTP server applications include 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**, which allows you to configure the local PC as a server.

The TFTP server also allows the selection of a root directory. You must select the directory in which the Cisco IOS files reside, for example, (d:\cpswinst\images).



Caution Make sure you set up your local PC as a TFTP server. If you overlook this step, you cannot perform the copy procedure. This reminder also applies if you are using rcp 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 by using one of these methods:
 - Connect the PC com port to the router console port.

This is the recommended method. When you reload the router with the new image in Step 16, you remain connected to the router. (If you use Telnet, you lose connection to the router.)
 - Establish a Telnet session from the PC to the router.



Caution Make sure your PC is set up to communicate with the 10BaseT Ethernet port on the router.

- Step 5** Connect your PC Ethernet port to the corresponding router LAN port. Use the 10BaseT crossover cable to connect to an Ethernet port. Use straight-through cables if you are connecting via a 10BaseT hub, a 100BaseT hub, or a Token Ring MAU.

Note We recommend that you back up the router configuration before upgrading the router software.

- Step 6** Enter **yes** when asked if the system configuration has been modified:

```
# System configuration has been modified. Save? yes
```

- Step 7** Enter **yes** when asked to confirm the reload:

```
Proceed with reload? [confirm] yes
```

Wait for the router to reload.

- Step 8** If the `password` prompt appears, enter the password:

```
Password: <password>
```

- Step 9** At the `router` prompt, enter **enable** and then the password:

```
Router(boot)> enable  
Password: <password>
```

- Step 10** At the `router` prompt, enter the following command to copy the new software image from the PC CD-ROM drive to the router:

```
Router(boot)(config)# copy tftp flash
```

In the next series of steps, you download the Cisco IOS Release 11.3 image that you want installed on your router.

- Step 11** When prompted, enter the IP address of your PC, as in the following example:

```
Address or name of remote host [255.255.255.255]? 131.108.1.1
```

This is the IP address of your local PC, not that of the router.

- Step 12** When prompted, enter the filename of the Cisco IOS Release 11.3 image to be copied to the router, as in the following example:

```
Source file name? 80273404.bin
```

This example specifies the DOS image name of the IP feature set for Cisco 2600 series routers (as shown in Table 2 in the “Cisco 2600 Series Feature Packs” section on page 3).

- Step 13** In response to the destination address prompt, enter the destination UNIX image filename, and press **Enter**.

This is the name of the image file on the router, not the full path of the image on the CD-ROM attached to the PC. Refer to Table 2 in the section, “Cisco 2600 Series Feature Packs” for the UNIX image filename.

```
Destination file name [80255201.bin]? c2600-i-mz.113-4.T
```

- Step 14** Enter **yes** in response to the prompt asking if you want to erase the existing image copy resident in the router Flash memory before copying the new one:

```
Erase flash device before writing? [confirm] yes
```

The entire copying process takes several minutes and differs from network to network.

During the transfer process, the software displays messages indicating that it has accessed the file you have specified and is loading it.

The exclamation point (!) indicates that the copy process is taking place. Each exclamation point (!) indicates that ten packets have been transferred successfully. A checksum verification of the image occurs after the image is written to Flash memory.

- Step 15** Enter the following commands to reset the configuration register to 0x2102:

```
Router(boot)(config)# config terminal  
Router(boot)(config)# config-reg 0x2102  
Router(boot)(config)# end
```

- Step 16** Enter the **reload** command to reload the router:

```
Router# reload
```

After reload is complete, the router should be running the desired Cisco IOS image. Use the **show version** command to verify that you have the correct image.

Documentation Updates

Due to a production problem, many source-route bridging commands were omitted from the printed version of the *Cisco IOS Software Command Summary* (78-4746-xx, DOC-CIOSCS11.3=). For complete documentation of all source-route bridging commands, refer to the *Bridging and IBM Networking Command Reference* (78-4743-xx). You can also obtain the most current documentation on the Documentation CD-ROM or Cisco Connection Online (CCO).

Related Documentation

These release notes should be used in conjunction with the documents listed in this section:

- Cisco 2600 Series-Specific Documentation
- New Feature Documentation
- Cisco IOS Documentation Set
- Other Supporting Documents
- Online Navigation

The documents listed in this section are available in printed or electronic format. See the “Online Navigation” section on page 25 for more information on accessing electronic documentation.

Cisco 2600 Series-Specific Documentation

The following documents are specific to the Cisco 2600 series routers:

- *Cisco 2600 Series Hardware Installation Guide*
- *Software Configuration Guide* (Cisco 3600 Series and Cisco 2600 Series Routers)
- *Cisco WAN Interface Cards Hardware Installation Guide*
- Cisco 2600 Series Configuration Notes
- *Cisco 2600 Series Cabling Specifications*
- *Network Module Hardware Installation Guide*

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 11.3 configuration guide and command reference books. The new feature documentation for Release 11.3 T is available online on CCO and on the Documentation CD-ROM. Refer to the “Online Navigation” section on page 25 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 “Online Navigation” section on page 25 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
<ul style="list-style-type: none"> • <i>Configuration Fundamentals Configuration Guide</i> • <i>Configuration Fundamentals Command Reference</i> 	Configuration Fundamentals Overview Cisco IOS User Interfaces File Management Interface Configuration System Management
<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"> • <i>Network Protocols Configuration Guide, Part 2</i> • <i>Network Protocols Command Reference, Part 2</i> 	AppleTalk Novell IPX
<ul style="list-style-type: none"> • <i>Network Protocols Configuration Guide, Part 3</i> • <i>Network Protocols Command Reference, Part 3</i> 	Apollo Domain Banyan VINES DECnet ISO CLNS XNS
<ul style="list-style-type: none"> • <i>Wide-Area Networking Configuration Guide</i> • <i>Wide-Area Networking Command Reference</i> 	ATM Frame Relay SMDS X.25 and LAPB

Books	Chapter Topics
<ul style="list-style-type: none"> • <i>Security Configuration Guide</i> • <i>Security Command Reference</i> 	<ul style="list-style-type: none"> 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"> • <i>Dial Solutions Configuration Guide</i> • <i>Dial Solutions Command Reference</i> 	<ul style="list-style-type: none"> 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"> • <i>Cisco IOS Switching Services Configuration Guide</i> • <i>Cisco IOS Switching Services Command Reference</i> 	<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> • <i>Bridging and IBM Networking Configuration Guide</i> • <i>Bridging and IBM Networking Command Reference</i> 	<ul style="list-style-type: none"> 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"> • <i>Cisco IOS Software Command Summary</i> • <i>Dial Solutions Quick Configuration Guide</i> • <i>System Error Messages</i> • <i>Debug Command Reference</i> 	

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 2600 series routers:

- *Release Notes for Cisco IOS Release 11.3*
- Product-specific Cisco IOS release notes for the Cisco 2600 series routers
- *Access Services Quick Configuration Guide*
- *Cisco IOS Software Release 11.3 and 11.3 T 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 2600 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 **Modular Access Routers**, and click **Cisco 2600 Series Routers**.
 - On the Documentation CD-ROM, go to **Cisco Product Documentation**, select **Access Servers and Access Routers**, go to **Modular Access Routers**, and click **Cisco 2600 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 11.3**.
 - On the Documentation CD, the path is **Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.3**.
- New feature documentation for Cisco IOS 11.3 T 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 11.3: Cisco IOS 11.3T New Features**.
 - On the Documentation CD, the path is **Cisco Product Documentation: Cisco IOS Software Configuration: Cisco IOS Release 11.3: Cisco IOS 11.3T New Features**.

For additional information about the Documentation CD-ROM and CCO, refer to the sections “Cisco Connection Online” and “Documentation CD-ROM” 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 & Cisco Suite 100, Network Management, Cisco IOS Software Bulletins, and CiscoPro Configurations.
- **Special Collections**—Other Helpful Documents, Frequently Asked Questions, Security Advisories, References & 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.

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- 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.

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