



Product Bulletin No. 2654

## Cisco IOS Software Release 12.3(7)X12 for Cisco 10000 Series Routers

This product bulletin provides information about Cisco IOS<sup>®</sup> Software Release 12.3(7)X12 for Cisco<sup>®</sup> 10000 Series routers.

These product bulletins are updated as needed to describe new features, memory requirements, hardware support, software platform deferrals, and changes to microcode and related documents.

Cisco IOS Software Release 12.3(7)X12 is based on the previous release, Release 12.3(7)X11. Cisco IOS Software Release 12.3(7)X12 will run only on the Cisco 10000 Series Performance Routing Engine 2 (PRE-2). There will be no support for PRE or PRE-1 routing engines.

### NEW FEATURES—CISCO IOS SOFTWARE RELEASE 12.3(7)X12

New features and improvements in Cisco IOS Release 12.3(7)X11 that are supported on Cisco 10000 Series routers include:

- Define Interface Policy-Map AV pairs AAA
- Dynamic ATM VP and VC configuration modification
- Local template-based ATM PVC provisioning
- MQC Policy Map support on configured VC range ATM
- RADIUS Attribute 31: PPPoX Calling Station ID
- Queue and ATM VC scaling enhancements
- Shaped UBR PVCs
- Multilink PPP (MLPPP was originally supported on PRE-2 with Cisco IOS Software Release 12.2(16)BX, but support was removed from Release 12.3(7)X11 because of several critical caveats. These caveats have been resolved and MLPPP is supported in Release 12.3(7)X12) but it is not supported for LNS configurations.

For detailed descriptions of each new feature or feature improvement, read the Cisco IOS Software Release 12.3(7)X12 release notes at:

<http://www.cisco.com/univercd/cc/td/doc/product/aggr/10000/10krn/index.htm>.

For more information about the new features in Cisco IOS Release 12.3(7)X12, refer to the following documentation:

<http://www.cisco.com/univercd/cc/td/doc/product/aggr/10000/config/10kbba/index.htm>.

### PRODUCT NUMBERS

Table 1 provides the product part numbers associated with this product bulletin.

**Note:** The PRE-2 ships with 1 GB of SDRAM, 64 MB of Boot Flash, and a 64-MB PCMCIA Flash disk (with an option to upgrade to 128 MB).

**Table 1.** Cisco IOS Software Release 12.3(17)X11 Feature Sets, Images, and Memory Recommendations

Standard Licenses					
Platform	Product Description	Product Code	Image	Flash	DRAM
Cisco 10000	Cisco 10000 Series IOS Broadband Router 8K Subscribers	S10KZ11A-12307X12	c10k2-p11-mz	64 MB	1 GB
Cisco 10000	Cisco 10000 Series IOS Service Provider/Secure Shell 3DES	S10KK5Z-12307X12	c10k2-k9p11-mz	64 MB	1 GB
Cisco 10000	Cisco 10000 Series IOS Lawful Intercept/Secure Shell 3DES	S10KK9ZU-12307X12	c10k2-k9u2p11-mz	64 MB	1 GB
Feature License—Broadband Subscriber Upgrades					
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 8K–16K	FL-ESR-BUS-8-16			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 8K–32K	FL-ESR-BUS-8-32			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 8K–48K	FL-ESR-BUS-8-48			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 8K–61.5K	FL-ESR-BUS-8-62			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 16K–32K	FL-ESR-BUS-16-32			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 16K–48K	FL-ESR-BUS-16-48			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 16K–61.5K	FL-ESR-BUS-16-62			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 32K–48K	FL-ESR-BUS-32-48			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 32K–61.5K	FL-ESR-BUS-32-62			
Cisco 10000	Cisco 10000 Series Broadband User Services Upgrade 48K–61.5K	FL-ESR-BUS-48-62			

**ADDITIONAL SOURCES**

Cisco 10000 Series Broadband Aggregation and Leased-Line Configuration Guide:

<http://www.cisco.com/univercd/cc/td/doc/product/aggr/10000/config/10kbba/index.htm>.

Release notes for the Cisco 10000 Series Router for Cisco IOS Release 12.3(7)X11:

<http://www.cisco.com/univercd/cc/td/doc/product/aggr/10000/10krm/123xi/1237xi1.htm>.

Cisco 10000 Series Broadband MIB Specifications Guide:

[http://www.cisco.com/en/US/products/hw/routers/ps133/products\\_mib\\_quick\\_reference\\_book09186a00804c932f.html](http://www.cisco.com/en/US/products/hw/routers/ps133/products_mib_quick_reference_book09186a00804c932f.html).



**Corporate Headquarters**  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-4000  
800 553-NETS (6387)  
Fax: 408 526-4100

**European Headquarters**  
Cisco Systems International BV  
Haarlerbergpark  
Haarlerbergweg 13-19  
1101 CH Amsterdam  
The Netherlands  
www-europe.cisco.com  
Tel: 31 0 20 357 1000  
Fax: 31 0 20 357 1100

**Americas Headquarters**  
Cisco Systems, Inc.  
170 West Tasman Drive  
San Jose, CA 95134-1706  
USA  
www.cisco.com  
Tel: 408 526-7660  
Fax: 408 527-0883

**Asia Pacific Headquarters**  
Cisco Systems, Inc.  
168 Robinson Road  
#28-01 Capital Tower  
Singapore 068912  
www.cisco.com  
Tel: +65 6317 7777  
Fax: +65 6317 7799

Cisco Systems has more than 200 offices in the following countries and regions. Addresses, phone numbers, and fax numbers are listed on the **Cisco.com Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).**

Argentina • Australia • Austria • Belgium • Brazil • Bulgaria • Canada • Chile • China PRC • Colombia • Costa Rica • Croatia • Cyprus • Czech Republic  
Denmark • Dubai, UAE • Finland • France • Germany • Greece • Hong Kong SAR • Hungary • India • Indonesia • Ireland • Israel • Italy  
Japan • Korea • Luxembourg • Malaysia • Mexico • The Netherlands • New Zealand • Norway • Peru • Philippines • Poland • Portugal  
Puerto Rico • Romania • Russia • Saudi Arabia • Scotland • Singapore • Slovakia • Slovenia • South Africa • Spain • Sweden  
Switzerland • Taiwan • Thailand • Turkey • Ukraine • United Kingdom • United States • Venezuela • Vietnam • Zimbabwe

Copyright © 2006 Cisco Systems, Inc. All rights reserved. CCSP, CCVP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, Packet, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, ScriptShare, SlideCast, SMARTnet, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0601R)

C25-339966-00 03/06