



Release Notes for Cisco Unity Connection Release 2.1(3b) Service Update 1

Published April 2, 2009

These release notes contain information on installation, and open and resolved caveats for Cisco Unity Connection Release 2.1(3b) Service Update 1 and for Connection in Cisco Unified Communications Manager Business Edition (CMBE) Release 6.1(3b) Service Update 1.

Release 2.1(3b) Service Update 1 contains a rollup of engineering specials. Note the following information:

- Anything documented as compatible with Connection version 2.1(3)—for example, Connection tools and other Cisco products—is equally compatible with 2.1(3b) Service Update 1.
- Connection 2.1(3) must be installed before you can install release 2.1(3b) Service Update 1.



Note

Cisco Unity Connection is a Linux-based solution. It is available in two configurations—Cisco Unity Connection, and Cisco Unified Communications Manager Business Edition, in which Connection is preloaded on the same platform with Cisco Unified Communications Manager. These release notes contain information for both configurations.

Contents

- [System Requirements, page 2](#)
- [Related Documentation, page 4](#)
- [Installation Information, page 4](#)
- [Caveats, page 5](#)



Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

- [Obtaining Documentation and Submitting a Service Request](#), page 10
- [Cisco Product Security Overview](#), page 10

System Requirements

For Cisco Unity Connection Release 2.1(3b) Service Update 1

Before you can install Cisco Unity Connection release 2.1(3b) Service Update 1, you must install Connection release 2.1(3).

For Cisco Unity Connection

System Requirements for Cisco Unity Connection Release 2.x contains the most current Connection requirements. The document is available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/requirements/20cucsystemreqs.html.

For support information, refer to *Supported Hardware and Software, and Support Policies for Cisco Unity Connection Release 2.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/support/2xcucsupp.html.

For Cisco Unity Connection in Cisco Unified CMBE

System Requirements for Cisco Unity Connection in Cisco Unified Communications Manager Business Edition Release 6.x contains the most current Connection requirements. The document is available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/requirements/60cucmbesystemreqs.html.

For support information, refer to *Supported Hardware and Software, and Support Policies for Cisco Unity Connection in Cisco Unified Communications Manager Business Edition Release 6.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/support/6xcucmbesupp.html.

Compatibility Information

The following documents list the most current version combinations qualified for use with Cisco Unity Connection, and with Connection in Cisco Unified CMBE (where applicable):

- *Compatibility Matrix: Cisco Unity Connection and the Software on User Workstations*
- *SCCP Compatibility Matrix: Cisco Unity Connection, Cisco Unified Communications Manager, and Cisco Unified Communications Manager Express*
- *SIP Trunk Compatibility Matrix: Cisco Unity Connection, Cisco Unified Communications Manager, and Cisco Unified Communications Manager Express*

The documents are available on Cisco.com at http://www.cisco.com/en/US/products/ps6509/products_device_support_tables_list.html.

Determining the Software Version

This section contains procedures for determining the version in use for the following software:

- [Cisco Unity Connection, page 3](#)
- [Cisco Personal Communications Assistant, page 3](#)

Cisco Unity Connection

This section contains two procedures. Use the applicable procedure, depending on whether you want to use Connection Administration or a command-line interface session to determine the version.

To Determine the Cisco Unity Connection Version by Using Cisco Unity Connection Administration

Step 1 In Cisco Unity Connection Administration, in the upper-right corner below the Navigation list, click **About**.

The Connection version is displayed below “Cisco Unity Connection Administration.”

To Determine the Cisco Unity Connection Version by Using the Command-Line Interface

Step 1 Start a command-line interface (CLI) session. For more information, see the Cisco Unified Communications Operating System Administration Help.

Step 2 Run the **show cuc version** command.

Cisco Personal Communications Assistant

To Determine the Cisco Personal Communications Assistant (PCA) Version

Step 1 Log on to the Cisco PCA.

Step 2 On the Cisco PCA Home page, click **About** in the upper right corner. (The link is available on every Cisco PCA page.)

Step 3 The Cisco Unity Connection version is displayed. The Cisco PCA version is the same as the Connection version.

Related Documentation

For Cisco Unity Connection

For descriptions and URLs of Cisco Unity Connection documentation on Cisco.com, refer to the *Documentation Guide for Cisco Unity Connection Release 2.x*. The document is shipped with Connection and is available at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/roadmap/2xcucdgdg.html.

For Cisco Unified Communications Manager Business Edition

For descriptions and URLs of Cisco Unified Communications Manager Business Edition documentation on Cisco.com, refer to the *Cisco Unified Communications Manager Business Edition Documentation Guide*. The document is shipped with Cisco Unified CMBE and is available at http://www.cisco.com/en/US/products/ps7273/products_documentation_roadmaps_list.html.

**Note**

The documentation links on Cisco.com for some Cisco Unity Connection in Cisco Unified CMBE 6.x versions go to documents that are labeled for Cisco Unity Connection Release 2.x. Despite the version label, all content in the documentation applies to both Connection configurations.

Installation Information

For instructions on downloading Cisco Unity Connection Release 2.1(3b) Service Update 1, see the “[Downloading Cisco Unity Connection Release 2.1\(3b\) Service Update 1 Software](#)” section on page 5.

For instructions on installing Service Update 1 on a Cisco Unity Connection Release 2.1(3) system, see the “Software Upgrade and Installation” section in the “[Software Upgrades](#)” chapter of the *Cisco Unified Communications Operating System Administration Guide for Cisco Unity Connection Release 2.x* at http://www.cisco.com/en/US/docs/voice_ip_comm/connection/2x/os_administration/guide/2xcucosagx.html.

For instructions on installing Service Update 1 on a Cisco Unified CMBE 6.1(3) system, see the “Software Upgrade and Installation” section in the “Software Upgrades” chapter of the *Cisco Unified Communications Operating System Administration Guide* at http://www.cisco.com/en/US/products/ps7273/prod_maintenance_guides_list.html.

Downloading Cisco Unity Connection Release 2.1(3b) Service Update 1 Software

To Download Cisco Unity Connection Release 2.1(3b) Service Update 1 Software

- Step 1** Log on to a computer with a high-speed Internet connection, and go to the Voice and Unified Communications Downloads page at <http://tools.cisco.com/support/downloads/pub/Redirect.x?mdfid=278875240>.



Note To access the software download page, you must be logged on to Cisco.com as a registered user.

- Step 2** In the tree control on the Downloads page, expand **Unified Communications Applications > Voice Mail and Unified Messaging > Cisco Unity Connection**, and click **Cisco Unity Connection Version 2.1**.
- Step 3** On the Select a Software Type page, click **Cisco Unity Connection Software**.
- Step 4** On the Select a Release page, click **2.1.3bSU1**, and the download links appear on the right side of the page.
- Step 5** Confirm that the computer you are using has sufficient hard disk space for the downloaded files. (The download file sizes appear below the download links.)
- Step 6** Click **UCSInstall_UCOS_SU_2.1.3b.3190-1.sgn.iso**, and follow the on-screen prompts to complete the download. Make note of the MD5 value.
- Step 7** Use a checksum generator to confirm that the MD5 checksum matches the checksum that is listed on Cisco.com. If the values do not match, the downloaded file is damaged.



Caution Do not attempt to use a damaged file to install software, or the results will be unpredictable. If the MD5 values do not match, download the file again until the value for the downloaded file matches the value listed on Cisco.com.

Free checksum tools are available on the Internet, for example, the Microsoft File Checksum Integrity Verifier utility. The utility is described in Microsoft Knowledge Base article 841290, *Availability and Description of the File Checksum Integrity Verifier Utility*. The KB article also includes a link for downloading the utility.

- Step 8** If you are installing from a DVD, burn the DVD, noting the following considerations:
- Use the Joliet file system, which accommodates filenames up to 64 characters long.
 - If the disc-burning application that you are using includes an option to verify the contents of the burned disc, choose that option. This causes the application to compare the contents of the burned disc with the source files.

Caveats

The tables in this section list the open and resolved caveats when Cisco Unity Connection version 2.1(3b) Service Update 1 was released.

You can find the latest caveat information for Cisco Unity Connection version 2.1(3b) Service Update 1 and for Connection in Cisco Unified Communications Manager Business Edition version 6.1(3b) Service Update 1 by using Bug Toolkit, an online tool available for customers to query defects according to their own needs. Bug Toolkit is available at www.cisco.com/go/bugs.

**Note**

To access Bug Toolkit, you must be logged on to Cisco.com as a registered user.

This section contains caveat information for Cisco Unity Connection 2.1(3b) Service Update 1 and Connection in Cisco Unified CMBE 6.1(3b) Service Update 1 only. Refer to the release notes of the applicable version for caveat information for earlier versions of Cisco Unity Connection.

Release notes for all versions of Cisco Unity Connection are available at http://www.cisco.com/en/US/products/ps6509/prod_release_notes_list.html.

Release notes for all versions of Cisco Unified Communications Manager Business Edition are available at http://www.cisco.com/en/US/products/ps7273/prod_release_notes_list.html.

Open Caveats—Connection Release 2.1(3b) SU 1, and Connection in Cisco Unified CMBE Release 6.1(3b) SU 1

Click a link in the Caveat Number column to view the latest information on the caveat in Bug Toolkit. (Caveats are listed in order by severity, then by component, then by caveat number.)

Table 1 Connection Release 2.1(3b) SU 1, and Connection in Cisco Unified CMBE 6.1(3b) SU 1 Open Caveats

Caveat Number	Component	Severity	Description
CSCsx99056	api	2	Phone Core Dump when launching VVM on an Arabic phone
CSCsr68377	admin	3	Reports not working with very large database
CSCsv42398	api	3	VMWS callerName not always available for voicemail users
CSCsv69240	api	3	StopPosMs of 536867912 returned from Record method
CSCsw24633	api	3	Hangup Call VMWS fails for SIP phones
CSCsw70788	api	3	Get INVALID_INPUT after skipping to another part of a message
CSCsx37327	api	3	VMWS: messages sent using the API do not have subject lines
CSCsy39752	api	3	Delete message using SysDefault always performs hard delete
CSCso63423	callroutingrules	3	CPCA: Cannot delete rule set
CSCsr47381	database	3	A/A : Alias Conflicts During Split Brain
CSCsx10655	database	3	server ip address change did not update the vmserver tbl
CSCsy01690	database	3	Conversation Manager service not starting up after upgrade
CSCsy55741	database	3	CuCsMgr may coredump after network disconnect
CSCsy17809	javanotifier	3	Message count may go negative if same message deleted simultaneously
CSCsy52496	javanotifier	3	SMTP notifications fail via Smart Host due to Bare LF's
CSCsr40660	localization	3	JPN: VMO Vista OL 2007 cannot read VMO addin
CSCsr75682	localization	3	Errornous Japanese prompts for Personal Call Transfer Rule settings
CSCsu36037	localization	3	It showed Complete in Status under OS Platform upgrade page.

Table 1 Connection Release 2.1(3b) SU 1, and Connection in Cisco Unified CMBE 6.1(3b) SU 1 Open Caveats

Caveat Number	Component	Severity	Description
CSCsr97963	mediamaster	3	"SIP integration, MM, record via phone, save on web page fails"
CSCsq35041	messaging	3	Message NDR'd due to UID uniqueness constraint violation
CSCsy32272	messaging	3	Connectivity loss to Primary may result in temporary call failures
CSCsy48064	messaging	3	CUC IMAP does not work when LDAP Auth over SSL is enabledco
CSCsy18450	pca	3	CUC7.0: PTG cpca linguistic fix requires label switch in code
CSCsy18537	pca	3	CUC7.0: PTG pca populates English dropdown menu
CSCsy48573	pca	3	CPCA: Missing jsp file causes http 500 in cpca
CSCsr47650	reports	3	DSS: Allow selecting a search space for the Dial Search Scope report
CSCsr47651	reports	3	DSS: Dial Search Scope report should report on all DAOs
CSCsx38473	serverrolesmgr	3	SRM should not be talking to partner node during upgrade if diff version
CSCso07071	telephony	3	Incorrect caller name played when call transferred to connection
CSCsu38511	telephony	3	L10N: System Default TTS Language setting has No TTS effect
CSCsr90132	vmo	3	"VMO: In Outlook2007, VMO form is removed when we save the Msg"
CSCsu55499	vmo	3	"After install of VMO, the 1st voice msg received doesn't have VMO form"
CSCsl35157	admin	4	Additional value needed for AXL settings field .
CSCsq03975	admin	4	RSS RTMT Current Session Counter not correct
CSCsr27552	admin	4	VMO: when ever we send a VMO MSG a copy is kept in the Delete Folder
CSCsy01151	admin	4	"When selecting Scope in a CH, if there are over 50 = blank page"
CSCsy11480	admin	4	List not filtered based on search string; Distribution List Members page
CSCsy23242	admin	4	"Play/Record option greys out in IE when ""Ignore callerinput"" is checked"
CSCsy32047	admin	4	Connection should log syslog when Stop Taking Calls pressed
CSCsu67522	api	4	VMWS: Playing Message Attachments via URIs misses very start of message
CSCsv69441	api	4	can receive voicemails when mailbox is over send/receive limit
CSCsr42373	conversations	4	TUI doesn't obey Send NDR on Failed Message Delivery setting
CSCsx35660	conversations	4	TUI envelope states message sent time instead of received time
CSCsx54299	conversations	4	Failsafe when two users in same mailbox delete message simultaneously
CSCso23499	database	4	Replication Agent user is exposed in the CUCA
CSCso95767	database	4	A/A: Lose messages when dyndb is full.
CSCsq20493	database	4	System should warn you when routing rules make calls unanswerable
CSCsr49641	database	4	End time for Greeting change 1 hour ahead when end date is on DST ON
CSCsw38722	database	4	Connection Database Proxy service doesn't stop when stopped via web page
CSCsx97523	database	4	Cluster configured with DNS name including TLD causes installer error
CSCsy20296	database	4	Uc 7.x database allows change to the alias of built in Administrator

Table 1 Connection Release 2.1(3b) SU 1, and Connection in Cisco Unified CMBE 6.1(3b) SU 1 Open Caveats

Caveat Number	Component	Severity	Description
CSCsy33411	database	4	Import Users page not allow import LDAP Directory users
CSCsy18630	documentation	4	Need procedure to Change Host Name on CUCMBE
CSCsy23459	hardware	4	UC sending cdp Half Duplex when actually configured for Full
CSCsx10551	javanotifier	4	notifications after repeat interval was turned off on one scenario
CSCsy34595	localization	4	UC:JPN prompt is not played correctly when pausing playing a message
CSCsq56886	mediamaster	4	Stream format error from Media Master if user does not click save
CSCsx31629	messaging	4	UC 7.0 RTMT does not have ability to delete BadMail
CSCsy55672	messaging	4	Messages left during SBR may be out of order once connectivity restored
CSCsr19696	pca	4	IE7 fails to retrieve current RSS feed
CSCsr64488	pca	4	DN: PCA doesn't list remote users in description of PCTR
CSCsr66720	pca	4	PCA: Rules Tester does not show remote contacts tab
CSCsy08614	pca	4	"CUC7.0: an extra space after ""Enabled"" in cpca for all lang"
CSCsy18562	pca	4	"CUC7.0: PTG, pls remove the extra blank row below ""Search Criteria"""
CSCsk97099	reports	4	UC 1.2 Message Activity Report showing N/A
CSCsr25569	reports	4	DN: Reports should not list remote distribution lists in scope
CSCsr42708	reports	4	Mbox store used data doesnt match between reports and CUCA
CSCsr45007	reports	4	Subscriber Message Activity report problems
CSCsq57491	telephony	4	Test port failing with CME since RegisterAckMsg not received in time
CSCsy45818	telephony	4	Unity Connection does not observe Media_SilenceSuppression_Off flag
CSCsq28337	vmo	4	VMO: Cannot re-play a msg on phone -a msg recorded earlier w/ headset
CSCsy44739	vmo	4	Errors while adjusting speed/pausing/resumimg during TRaP playback
CSCsy11620	admin	5	User Template Disp. Name & Type wrong on dist. list membership page
CSCsr40065	conversations	5	VUI NoMatch Handler counter doesn't reset
CSCsr01255	database	5	Core dump in Unityconnection during loadrun
CSCso31780	pca	5	Need to play beeps between sections of multi-part voicemail messages
CSCsw36010	pca	5	PCA Notification device names do not match CUAdmin
CSCsx24079	utilities	5	Port Status Monitor for Connection usability issues for large systems
CSCsr02313	vmo	5	VMO: Can't change the new Voice mail Notification sound
CSCsr82328	vmo	5	VMO: Outlook error when we try close the window of a secure MSG.

Resolved Caveats—Connection Release 2.1(3b) SU 1, and Connection in Cisco Unified CMBE Release 6.1(3b) SU 1

Click a link in the Caveat Number column to view the latest information on the caveat in Bug Toolkit. (Caveats are listed in order by severity, then by component, then by caveat number.)

Table 2 Connection Release 2.1(3b) SU 1 and Connection in Cisco Unified CMBE 6.1(3b) SU 1 Resolved Caveats

Caveat Number	Component	Severity	Description
CSCsq49668	core	2	"Temp fail on phone, then reorder while accessing external messages"
CSCso59591	database	2	L2: each task in tbl_taskperiodic appear as many times as box upgraded
CSCsu01319	database	2	"Unity connection SMTP address replacing ""."" with ""_"""
CSCsu29640	database	2	ST:CUCMBE switch version failed from 6.1.2.9921-3 to 6.1.2.9931-4
CSCsq79170	messaging	2	IMAP user with > 84 messages crashes IMAP service in UC 2.x
CSCsv13131	messaging	2	Unity Connection forwarded messages via VPIM to 3rd party system fails
CSCsu03146	ossetup	2	upgrade failed
CSCsu21665	pca	2	Unity Connection message failing to play with phone option over PCA
CSCsr38584	telephony	2	Race condition in hangup can cause message drop
CSCsi47856	admin	3	Audio Text Admin doesn't have proper access to Call Handler management
CSCso00396	admin	3	Access Denied To Configure SNMP community string etc
CSCso21494	admin	3	Bulk Edit of Mutiple Call Handlers Fails
CSCsq84150	admin	3	Cannot import more users after importing 1670 users from CUCM
CSCsq84423	admin	3	Indian English TTS and SA doesn't work
CSCsr60804	admin	3	need a way to clean out badmail folder without root access
CSCsu68074	admin	3	Security issue allows for admins to read files on the hard drive
CSCsv24105	admin	3	Unable to authenticate due to realm plugin changes
CSCsv80210	admin	3	Cannot send message from PCA after Replace Tomcat Cert
CSCsq07155	conversations	3	UC: Double key presses not detected from cell phones
CSCsr46212	conversations	3	TUI DH caller gets users out of scope when searching within PDL
CSCsk86091	database	3	Tracing: Need cuals tracing in UC2.x
CSCsm41655	database	3	Unity Connection 2 stops answering calls
CSCsq25067	database	3	CUC 2.1 Personal REcording in User Template are not effective
CSCsq54312	database	3	UC 2.X new install failed to create UI user if special character is used
CSCsr81604	database	3	No task definition in CUCA Task Management after upgrade from 2.1
CSCsu98521	database	3	Australian Daylight Saving : Changes in October
CSCsv39842	database	3	UC 2.x does not allow logins if hostname is short
CSCsw52919	database	3	Logging into Web UI with platform admin credentials causes db error
CSCsg02425	messaging	3	Apple Mail cannot access messages via IMAP from UC
CSCsl15335	messaging	3	IMAP: Memory Leak in CuImapSvr
CSCsm58151	messaging	3	"IMAP leak on sustained loads, Logout?"
CSCsr98160	messaging	3	UC Message Migration fails to deliver all messages
CSCsu11936	messaging	3	"Can not send SMTP NTFY: 553 5.0.0 Header error, Invalid Message ID"
CSCsv03286	messaging	3	UC 2.1.2 spaces in DN for cert causes IMAP SSL to fail
CSCsq24794	mixer	3	Mixer can drop audio during recording
CSCsq82110	mixer	3	UC 2.0 mixer terminating g711-alaw with ~100ms of junk audio

Table 2 Connection Release 2.1(3b) SU 1 and Connection in Cisco Unified CMBE 6.1(3b) SU 1 Resolved Caveats

Caveat Number	Component	Severity	Description
CSCsq97036	mixer	3	Mixer jitter buffer size needs to be increased
CSCsr81610	mixer	3	Offline transcoding G729 message to other codec causes garbled audio
CSCsr58274	pca	3	PCA gives error when playing back messages stored in G.729a
CSCsw33324	pca	3	CPCA : Java Error pop-up when running JRE6 on a client PC
CSCsu88410	telephony	3	PSTN Callers Hear Subscriber Greeting Twice On Direct XFer to VM
CSCsu88470	admin	4	Unity Connection - Find Users where - does not list results on 2nd pg
CSCsr28740	core	4	email address field shows extra string when import contact from Exchange
CSCso79865	messaging	4	Unity connection PCA URL is based on hostname only
CSCsq72317	messaging	4	UC should fallback to HELO if EHLO is unrecognized by SMTP server
CSCsr81665	mixer	4	"WAV converted to PCM/G729a using offline lib, fails to play on Windows"
CSCsr86832	database	6	To support toolchain
CSCsr91692	mixer	6	Change the path of IPPROOT from /opt to /auto
CSCsq05360	setup	6	Sync up with CUCM libraries for Connection projects

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

Cisco Product Security Overview

This product contains cryptographic features and is subject to United States and local country laws governing import, export, transfer and use. Delivery of Cisco cryptographic products does not imply third-party authority to import, export, distribute or use encryption. Importers, exporters, distributors and users are responsible for compliance with U.S. and local country laws. By using this product you agree to comply with applicable laws and regulations. If you are unable to comply with U.S. and local laws, return this product immediately.

Further information regarding U.S. export regulations may be found at http://www.access.gpo.gov/bis/ear/ear_data.html.

CCDE, CCENT, CCSI, Cisco Eos, Cisco Explorer, Cisco HealthPresence, Cisco IronPort, the Cisco logo, Cisco Nurse Connect, Cisco Pulse, Cisco SensorBase, Cisco StackPower, Cisco StadiumVision, Cisco TelePresence, Cisco TrustSec, Cisco Unified Computing System, Cisco WebEx, DCE, Flip Channels, Flip for Good, Flip Mino, Flipshare (Design), Flip Ultra, Flip Video, Flip Video (Design), Instant Broadband, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn, Cisco Capital, Cisco Capital (Design), Cisco:Financed (Stylized), Cisco Store, Flip Gift Card, and One Million Acts of Green are service marks; and Access Registrar, Aironet, AllTouch, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert

logo, Cisco IOS, Cisco Lumin, Cisco Nexus, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, Continuum, EtherFast, EtherSwitch, Event Center, Explorer, Follow Me Browsing, GainMaker, iLYNX, IOS, iPhone, IronPort, the IronPort logo, Laser Link, LightStream, Linksys, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, PCNow, PIX, PowerKEY, PowerPanels, PowerTV, PowerTV (Design), PowerVu, Prisma, ProConnect, ROSA, SenderBase, SMARTnet, Spectrum Expert, StackWise, WebEx, and the WebEx logo are registered trademarks of Cisco 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. (1002R)

Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

© 2009 Cisco Systems, Inc. All rights reserved.

