Preface

This document provides design considerations and guidelines for deploying Cisco Unified Communications System Release 8.*x*, including Cisco Unified Communications Manager 8.*x* and various other components of the Cisco Unified Communications System.

This document should be used in conjunction with other documentation available at the following locations:

- For other Solution Reference Network Design (SRND) documents:

  http://www.cisco.com/go/ucsrnd

- For more information about the Cisco Unified Communications System:

  http://www.cisco.com/go/unified-techinfo

  http://www.cisco.com

- For more information about Cisco Unified Communications Manager:

  http://www.cisco.com/en/US/products/sw/voicesw/ps556/tsd_products_support_series_home.html

  http://www.cisco.com

- For other Cisco design guides:

  http://www.cisco.com/go/designzone

New or Changed Information for This Release

> **Note** Unless stated otherwise, the information in this document applies to Release 8.*x* of the Cisco Unified Communications System and its components.

Within each chapter of this guide, new and revised information is listed in a section titled *What's New in This Chapter.*

Although much of the content in this document is similar to previous releases of the SRND, it has been reorganized extensively to reflect more accurately the architecture of the Cisco Unified Communications System. Cisco recommends that you review this entire document to become familiar with its structure and the system architecture.

Revision History

This document may be updated at any time without notice. You can obtain the latest version of this document online at:

http://www.cisco.com/go/ucsrnd

Visit this Cisco.com website periodically and check for documentation updates by comparing the revision date of your copy with the revision date of the online document.

The following table lists the revision history for this document.

Revision Date	Document Part Number	Comments
July 31, 2012	OL-21733-18	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
April 30, 2012	OL-21733-17	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
February 29, 2012	OL-21733-16	Addition of a new chapter on Unified Communications Design and Deployment Sizing Considerations, page 29-1. For information on other corrections and changes, in each chapter see *What's New in This Chapter.*
January 12, 2012	OL-21733-15	Minor corrections to a few illustrations. For details, in each chapter see *What's New in This Chapter.*
December 22, 2011	OL-21733-14	Updates to add information on Cisco Virtualization Experience Infrastructure (VXI), Cisco Virtualization Experience Client (VXC), and Cisco Unified Computing System (UCS). For details, in each chapter see *What's New in This Chapter.*
November 30, 2011	OL-21733-13	Updates to add information on Wireless LAN infrastructure and Cisco EnergyWise Technology. For details, see Network Infrastructure, page 1.
October 31, 2011	OL-21733-12	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
September 30, 2011	OL-21733-11	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
August 31, 2011	OL-21733-10	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
July 29, 2011	OL-21733-09	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
June 30, 2011	OL-21733-08	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
June 2, 2011	OL-21733-07	Updates for Cisco Unified Communications System Release 8.6.
March 31, 2011	OL-21733-06	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
February 28, 2011	OL-21733-05	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
January 31, 2011	OL-21733-04	Periodic update of various chapters. For details, in each chapter see *What's New in This Chapter.*
November 15, 2010	OL-21733-03	Updates for Cisco Unified Communications System Release 8.5.

Revision Date	Document Part Number	Comments
July 23, 2010	OL-21733-02	Updates for Cisco Unified Communications System Release 8.0(2).
April 2, 2010	OL-21733-01	Initial version of this document for Cisco Unified Communications System 8.0.

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

Conventions

This document uses the following conventions:

Convention	Indication
bold font	Commands and keywords and user-entered text appear in **bold** font.
italic font	Document titles, new or emphasized terms, and arguments for which you supply values are in *italic* font.
[ ]	Elements in square brackets are optional.
{x	y	z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[x	y	z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
courier font	Terminal sessions and information the system displays appear in courier font.
< >	Non-printing characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.

Note Means *reader take note*.

Tip Means *the following information will help you solve a problem.*

Caution Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.

Timesaver Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Warning **Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.**