Cisco Unified Contact Center Express Installation Guide

Cisco Unified Contact Center Express and Cisco Unified IP IVR Release 7.0(1)

September, 2008

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number:

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

CCDE, CCENT, Cisco Eos, Cisco Lumin, Cisco Nexus, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, the Cisco logo, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, 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 Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo 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. (0809R)

Cisco Unified Contact Center Express Installation Guide, Release 7.0(1)
Copyright © 2008 Cisco Systems, Inc. All rights reserved.

CONTENTS

Preface i

Overview i

Audience i

Organization ii

Related Documentation iii

Obtaining Documentation, Obtaining Support, and Security Guidelines iii

Documentation Feedback iv

CHAPTER 1 **Overview** 1-1

Cisco Unified CCX Installer 1-1

Cisco Unified CCX Installation Overview 1-1

1-2

Cisco Unified CCX Upgrade Overview 1-3

CHAPTER 2 **Cisco Unified CCX Deployment Options** 2-1

Cisco Unified CCX Components 2-2

Standby Server 2-2

Guidelines for Deploying High Availability 2-3

Guidelines for Deploying High Availability with Two Servers 2-3

Guidelines for Deploying Microsoft SQL Server 2000 with High Availability 2-4

Cisco Unified CCX Databases 2-4

Cisco Unified CCX Cluster 2-5

Deploying Cisco Unified CCX with a Cisco Unified Communications Gateway 2-5

CHAPTER 3 **Installation Requirements, Prerequisites, and Related Procedures 3-1**

Server Requirements 3-2

Client System Requirements 3-2

Server Performance 3-3

Installing Cisco Unified CM 3-3

Deploying Cisco Unified CCX with Cisco Unified CME 3-4

Installing the Required Operating System 3-5

Connecting a Server to the Network 3-6

Verifying Hardware Settings and Connectivity 3-6

- Configuring Speed and Duplex Settings 3-7
- Checking Connectivity Between all Servers 3-7
- Verifying NIC Binding Order 3-9

Obtaining License Files 3-9

License Consumption 3-10

- CAD/CSD Logins 3-11
- HRC sessions 3-12
- Recording sessions/playback viewer 3-12

Cisco Unified CCX Disk Space Usage 3-12

Disabling Virus Scanning and the Cisco Security Agent 3-13

Configuring Cisco Unified CCX 3-14

Implementing Additional Applications 3-14

Installation Notes 3-18

CHAPTER 4 **Installing Cisco Unified CCX** 4-1

Installing the Cisco Unified CCX Software 4-1

CHAPTER 5 **Cisco Unified CCX 7.0(1) License Validator** 5-1

CHAPTER 6 **Upgrading CRS 4.0(5x) to Cisco Unified CCX 7.0(1)** 6-1

CHAPTER 7 **Upgrading CRS 4.5(x) to Cisco Unified CCX 7.0(1)** 7-1

Back Up Cisco Unified CCX Data 7-1

Re-Imaging Cisco Unified CCX Servers 7-2

Upgrading Cisco Unified CM 7-5

Upgrading the Cisco Unified CCX Software 7-6

Upgrading from CRS 4.5(x) standalone (SA) deployment to Cisco Unified CCX 7.0(1) standalone deployment: 7-7

Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) high availability deployment 7-14

Installing MS SQL 2000 Server 7-19

CHAPTER 8 **Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1)** 8-1

Before You Begin 8-1

Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1) 8-2

Upgrading a HA Deployment from 5.0(x) to 7.0(1) 8-6

Installing MS SQL 2000 Server 8-12

Preview Outbound Configuration in Cisco Unified CCX 7.0(1) 8-13

CHAPTER 9 **Upgrading to Cisco Unified CCX 7.0(1) for Cisco Unified CSS Users** 9-1

Cisco Unified CSS License Upgrade 9-1

Upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1) 9-2

Upgrading from CRS 5.0(x) to Cisco Unified CCX 7.0(1) 9-2

Upgrading from CRS 3.5 to Cisco Unified CCX 7.0(1) 9-2
Upgrading from CRS 4.0/ 4.1/ 6.0 to Cisco Unified CCX 7.0(1) 9-3
Using the License Conversion Tool 9-3

CHAPTER 10 **Upgrading CRS 5.0(x) to Cisco Unified CME 7.0(1)** 10-1

CHAPTER 11 **Performing the Initial Setup of Cisco Unified CCX** 11-1
Accessing Cisco Unified CCX Administration 11-3
Performing the Single Node Setup for a Deployment with Cisco Unified CM 11-5
Performing First Node Setup for a Deployment with Cisco Unified CM 11-16
Performing the Add to Cluster Setup for a Deployment with Cisco Unified CM 11-29
Creating New Cisco Unified CM Users 11-36
Performing the Restore Setup 11-36
Performing the Initial Setup for a Deployment with Cisco Unified CME 11-45
11-52

CHAPTER 12 **Repairing Cisco Unified CCX** 12-1
Performing the Repair Procedure 12-1

CHAPTER 13 **Patching Cisco Unified CCX** 13-1
Patching Overview 13-1
Obtaining a Patch 13-5
Before You Begin 13-5
Installing or Reinstalling a Patch 13-6
Uninstalling a Patch 13-10

CHAPTER 14 **Changing Your Cisco Unified CCX Deployment** 14-1

Replacing a Cisco Unified CCX Server 14-2

Changing Other Deployment Settings 14-3

Changing Deployment Type of Unified CCX 7.0(1) from SA to HA 14-3

Saving Recording Files When You Change a Deployment 14-4

CHAPTER 15 **Cisco Unified CCX Installer Messages and Log Files** 15-1

Cisco Unified CCX Installer Messages 15-1

Cisco Unified CCX Installer Log Files 15-10

INDEX

Preface

Overview

Cisco Unified Contact Center Express Installation Guide provides instructions and related information for installing, reinstalling, uninstalling, repairing, and patching Cisco Unified Contact Center Express[1] (Cisco Unified CCX) 7.0(1), and for performing initial setup tasks.

Audience

This manual is intended for Cisco Unified Communications system administrators. You should have the network and telephony knowledge that is required to install and set up the Cisco Unified CCX software. You should also be familiar with the Cisco Unified Communications Manager (Cisco Unified CM) or Cisco Unified Communications Manager Express (Cisco Unified CME) configurations at your site.

1. Cisco Customer Response Solutions (Cisco CRS) will be known as Cisco Unified Contact Center Express (Cisco Unified CCX), effective Cisco Unified CCX 7.0(1) and later. This name is applicable to all Cisco CRS products, platforms, engines, and solutions. For example, Cisco CRS Engine will be known as Cisco Unified CCX Engine.

Organization

This manual is organized as follows:

Chapter 1, "Overview"	Explains activities that you can perform with the Cisco Unified CCX Installer, and gives an overview of the Cisco Unified CCX installation and upgrade
Chapter 2, "Cisco Unified CCX Deployment Options"	Provides overviews and guidelines for the components and servers that can make up a Cisco Unified CCX deployment
Chapter 3, "Installation Requirements, Prerequisites, and Related Procedures"	Provides information that relates to installation and upgrade procedures
Chapter 4, "Installing Cisco Unified CCX"	Provides instructions for installing the Cisco Unified CCX software on a server
Chapter 5, "Cisco Unified CCX 7.0(1) License Validator,"	Describes how to verify the correctness and validity of your Cisco Unified CCX 7.0(1) license file for an upgrade.
Chapter 6, "Upgrading CRS 4.0(5x) to Cisco Unified CCX 7.0(1),"	Describes how to upgrade from CRS 4.0(5x) to Cisco Unified CCX 7.0(1)
Chapter 7, "Upgrading CRS 4.5(x) to Cisco Unified CCX 7.0(1),"	Describes how to upgrade from CRS 4.5(x) to Cisco Unified CCX 7.0(1)
Chapter 8, "Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1)"	Describes how to upgrade from CRS 5.0(x) to Cisco Unified CCX 7.0(1)
Chapter 9, "Upgrading to Cisco Unified CCX 7.0(1) for Cisco Unified CSS Users"	Describes how Cisco Unified CSS users can upgrade from CRS 4.5(x) or 5.0(x) to Cisco Unified CCX 7.0(1)
Chapter 10, "Upgrading CRS 5.0(x) to Cisco Unified CME 7.0(1),"	Describes how to Upgrade CRS 5.0(x) to Cisco Unified CME 7.0(1)

Chapter 11, “Performing the Initial Setup of Cisco Unified CCX”	Explains how to access Cisco Unified CCX Administration and how to use the cluster setup and server setup procedures
Chapter 12, “Repairing Cisco Unified CCX”	Provides instructions for recovering Cisco Unified CCX on a server, and for recovering a Cisco Unified CCX cluster
Chapter 13, “Patching Cisco Unified CCX”	Provides instruction for installing service releases and other software patches to Cisco Unified CCX
Chapter 14, “Changing Your Cisco Unified CCX Deployment”	Provides guidelines and general procedures for making changes to a Cisco Unified CCX deployment
Chapter 15, “Cisco Unified CCX Installer Messages and Log Files”	Describes error and other messages that the Cisco Unified CCX Installer may display

Related Documentation

Related Cisco Unified CCX documentation is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, 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 Cisco technical documentation, at:

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

Documentation Feedback

You can provide comments about this document by sending an email to the following address:

ccbu_docfeedback@cisco.com

We appreciate your comments.

CHAPTER 1

Overview

Cisco Unified CCX provides a single, consistent, and easy-to-manage platform for the following products:

- Cisco Unified CCX
- Cisco Unified IP IVR

This chapter describes the Cisco Unified CCX Installer, which you use to install or repair Cisco Unified CCX.

This chapter also provides overviews of the procedures that you perform when you install or upgrade Cisco Unified CCX. Use the overview as a guide when installing or upgrading to ensure that you perform all the necessary procedures.

Cisco Unified CCX Installer

The Cisco Unified CCX Installer starts automatically when you insert the Cisco Unified CCX DVD into a server. You use the Installer to install or repair Cisco Unified CCX.

Cisco Unified CCX Installation Overview

To install and set up Cisco Unified CCX, you perform a series of procedures in sequence. Table 1-1 lists these procedures and provides references to more information about each procedure. Depending on your installation, you may not need to perform each one of these procedures.

Table 1-1 Overview of Cisco Unified CCX Installation Procedures

	Procedure	Reference
Step 1	Review the Cisco Unified CCX deployment guidelines.	See Chapter 2, "Cisco Unified CCX Deployment Options."
Step 2	Make sure that you are installing on an approved server, which meets the requirements for Cisco Unified CCX.	See the "Server Requirements" section on page 3-2.
Step 3	Review the guidelines for ensuring that the server on which you are installing operates most efficiently.	See the "Server Performance" section on page 3-3.
Step 4	Register your Cisco Unified CCX purchase and obtain your license files.	See the "Obtaining License Files" section on page 3-9.
Step 5	Install and configure Cisco Unified Communications Manager (Cisco Unified CM) or Cisco Unified Communications Manager Express (Cisco Unified CME) (if needed), and ensure that one of these applications is running.	See the "Installing Cisco Unified CM" section on page 3-3.
Step 6	Install the Cisco-provided Windows 2003 Server operating system (if needed).	See the "Installing the Required Operating System" section on page 3-5.
Step 7	Connect the server on which you are installing to the network.	See the "Connecting a Server to the Network" section on page 3-6.
Step 8	Verify network connections.	See the "Verifying Hardware Settings and Connectivity" section on page 3-6.
Step 9	Review the installation notes.	See the "Installation Notes" section on page 3-18.
Step 10	Disable virus scanning and the Cisco Security Agent on the server on which you are installing.	See the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-13.
Step 11	Perform the Cisco Unified CCX installation procedure.	See Chapter 4, "Installing Cisco Unified CCX."

Table 1-1 Overview of Cisco Unified CCX Installation Procedures (continued)

	Procedure	Reference
Step 12	Access Cisco Unified CCX Administration and perform the initial setup procedure.	See Chapter 11, "Performing the Initial Setup of Cisco Unified CCX."
Step 13	Install the current Cisco Unified CCX patch (if applicable).	See Chapter 13, "Patching Cisco Unified CCX."
Step 14	Configure Cisco Unified CCX (as needed).	See the "Configuring Cisco Unified CCX" section on page 3-14.
Step 15	Install and configure other applications that you will use with Cisco Unified CCX (as needed).	See the "Implementing Additional Applications" section on page 3-14.

Cisco Unified CCX Upgrade Overview

You can upgrade from:

- CRS 4.5(x) to Cisco Unified CCX 7.0(1)

Refer Chapter 5 for detailed instructions about the upgrade procedure.

- CRS 5.0(x) to Cisco Unified CCX 7.0(1)

Refer Chapter 6 for detailed instructions about the upgrade procedure.

Note If you are upgrading from CRS 5.0(x) to Cisco Unified CCX 7.0(1), you can directly apply the upgrade on the existing CRS 5.0(x) installation, since both CRS 5.0(x) and Cisco Unified CCX 7.0(1) use the same operating system, that is, Windows OS 2003.

CHAPTER 2

Cisco Unified CCX Deployment Options

This chapter provides information about the software components and servers that can make up a Cisco Unified CCX 7.0(1) deployment. It also describes the Cisco Unified CCX databases and the Cisco Unified CCX cluster, and provides an overview of deploying Cisco Unified CCX with a Cisco Unified Communications Gateway.

You can deploy Cisco Unified CCX with:

- Cisco Unified Communications Manager (Cisco Unified CM)

  or

- Cisco Unified Communications Manager Express (Cisco Unified CME). Both these applications cannot reside on the server on which you install Cisco Unified CCX.

Note The Unified Contact Center 7.0(1) configuration steps for 2800/3800 Series router, and UC500 Series router with Communications Manager Express deployment are the same.

Review the information in this chapter before you perform the various installation, setup, and related procedures for a Cisco Unified CCX product.

Also refer the *Release Notes for Cisco Unified Contact Center Express 7.0(1)* for important updated information.

For additional information about deploying Cisco Unified CCX 7.0(1), refer the *Cisco Unified CCX Solution Reference Network Design*, which is available at this URL:

www.cisco.com/go/srnd

This chapter includes the following sections:

- Cisco Unified CCX Components, page 2-2
- Standby Server, page 2-2
- Cisco Unified CCX Databases, page 2-4
- Cisco Unified CCX Cluster, page 2-5
- Deploying Cisco Unified CCX with a Cisco Unified Communications Gateway, page 2-5

Cisco Unified CCX Components

Cisco Unified CCX includes the following main software components. You activate the components that you will run when you perform the server setup procedure.

- Cisco Unified CCX Engine—Controls many of the Cisco Unified CCX functions
- Database—Manages Cisco Unified CCX databases
- Monitoring—Allows supervisors to monitor agent calls, available only for Cisco Unified CCX
- Recording—Allows recording of agent calls, available only for Cisco Unified CCX

Standby Server

Cisco Unified CCX lets you deploy a standby server for high availability (HA). With HA, if the active server becomes unavailable, the standby server immediately and automatically becomes the active server.

Note HA option is available in the Premium and Enhanced packages only.

To deploy a standby server, perform these procedures in this order:

1. Install Cisco Unified CCX on both the servers (active and standby)
2. Perform the server setup procedure on the active server.
   The HA deployment needs a separate license called the "warm standby" license. You need to upload this license only once, on the active server. This license allows the second node (which is the standby server) to be added to the active server's cluster during the initial setup procedure on the standby server.
3. *After* you perform the setup procedure on the active server, perform the setup procedure on the standby server.

On the standby server, you must install the same components that are installed on the active server.

Guidelines for Deploying High Availability

The following sections provide guidelines that you should follow if you deploy a Cisco Unified CCX solution with high availability:

Guidelines for Deploying High Availability with Two Servers

If you are deploying high availability in an environment with two servers, perform the following general steps in this order.

Note If servers have different hard disk sizes, use the server with smaller disk as the active server and use the server with the larger disk as the standby server.

1. Install the Unified CCX Engine, all the Datastore components, and Microsoft SQL Server 2000 on the server that will be the active server before you reboot the server.
2. Activate all Unified CCX components on the active server

3. Install the Unified CCX Engine, all the Datastore components, and Microsoft SQL Server 2000 on the server that will be the standby server before you reboot the server.
4. Activate all the components on the Standby server

Guidelines for Deploying Microsoft SQL Server 2000 with High Availability

When you deploy high availability, the following guidelines apply to Microsoft SQL Server 2000:

- Microsoft SQL Server 2000 must be installed on each server on which the Unified CCX Datastore components are installed and activated. In a four-server deployment, it does not need to be installed on the servers on which the Unified CCX Engine is installed.
- Complete the installation of MS SQL Server 2000 on a server before installing it on another server.
- Activate the Datastore components on a server after you install MS SQL Server 2000 on the server.
- If you are changing from a deployment without high availability to a deployment with high availability, first install MS SQL Server 2000 and configure the Datastore components on an existing server. Then install MS SQL Server 2000 and configure the Datastore components on the standby server.

Cisco Unified CCX Databases

Cisco Unified CCX includes the following databases:

- db_cra—Contains Config Datastore component data and Historical datastore component data
- db_cra_repository—Contains Repository Datastore component data, which includes user prompts, user grammars, user-generated scripts, and other text or binary files
- FCRasSvr—Contains Agent Datastore component data

By default, the Cisco Unified CCX installation procedure installs Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) for use with the Cisco Unified CCX databases. You can instead choose to use Microsoft SQL Server 2000, which is available as a separate product from Cisco Systems, Inc. MS SQL Server 2000 may increase the maximum size allowed for databases based on the hard disk size of the server.

Note If you deploy high availability, you must install MS SQL Server 2000.

You install MS SQL Server 2000 after you install Cisco Unified CCX. For additional information, refer the *MS SQL Server 2000 Resources Card for Cisco Unified CCX*.

Cisco Unified CCX Cluster

The Cisco Unified CCX cluster (often referred to as *cluster* in this manual) consists of the single server (or *node*) that is running active Cisco Unified CCX or a standby server running Cisco Unified CCX.

Note There can be only one standby server.

Deploying Cisco Unified CCX with a Cisco Unified Communications Gateway

If you install Cisco Unified CCX in an environment where Cisco Unified CCX communicates with Cisco ICM software through an Cisco Unified Communications Gateway, The Cisco Unified Communications Gateway must be installed on the server on which you install Cisco Unified CCX.

For additional detailed information, refer the *Cisco Unified CCX Gateway Deployment Guide*, which is available at this URL:

http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1001/prod_installation_guides_list.html

CHAPTER 3

Installation Requirements, Prerequisites, and Related Procedures

This chapter describes various requirements, prerequisites, and procedures that may apply to the Cisco Unified CCX installation. It also provides important notes that you should review before you install Cisco Unified CCX.

Not all of the information in this chapter applies to every installation. To determine the sections that apply to the activity that you are performing, see the section on **Cisco Unified CCX Installation Overview in Chapter 1**.

This chapter includes the following sections:

- Server Requirements, page 3-2
- Client System Requirements, page 3-2
- Server Performance, page 3-3
- Installing Cisco Unified CM, page 3-3
- Deploying Cisco Unified CCX with Cisco Unified CME, page 3-4
- Installing the Required Operating System, page 3-5
- Connecting a Server to the Network, page 3-6
- Verifying Hardware Settings and Connectivity, page 3-6
- Obtaining License Files, page 3-9
- License Consumption, page 3-10
- Cisco Unified CCX Disk Space Usage, page 3-12
- Disabling Virus Scanning and the Cisco Security Agent, page 3-13

- Configuring Cisco Unified CCX, page 3-14
- Implementing Additional Applications, page 3-14
- Installation Notes, page 3-18

Server Requirements

Any server on which you install Cisco Unified CCX must be approved for Cisco Unified CCX. For a list of approved servers, refer the *Cisco Unified Contact Center Express Software and Hardware Compatibility Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html

An approved server on which you install Cisco Unified CCX must meet these requirements:

- Operating system—Cisco-provided Windows 2003 Server
- Hard disk—72 GB minimum
- RAM—2 GB minimum

Note To prevent unpredictable behavior due to power failure, you must ensure uninterrupted power supply to the Cisco Unified CCX servers at all times.

Client System Requirements

After you install Cisco Unified CCX, you can access the Cisco Unified CCX Administration web interface from a server on which Cisco Unified CCX is installed, or from a client system with access to your network.

You can also install Cisco Unified CCX plug-ins on a client system.

A client system must meet these requirements:

- Operating system—Windows 2000 Professional, Windows XP Professional, or Windows Vista (Ultimate, Enterprise and Business Editons).
- Browser—Microsoft Internet Explorer 6.x

Server Performance

To ensure that a server operates most efficiently, follow these guidelines when installing Cisco Unified CCX:

- Activate only the Cisco Unified CCX software components that you will use.
- If you are installing Cisco Unified CCX on a server that has been used for another application, uninstall the application before installing Cisco Unified CCX. Or, if possible, reinstall the operating system on the server. To install the operating system, see the Installing the **Required Operating System section in this Chapter.**
- For a high availability (HA) deployment, the Cisco Unified CCX standby node must use a hardware platform that has is of the same capacity as the master node.

Installing Cisco Unified CM

Before you install Cisco Unified CCX, Cisco Unified Communications Manager (Cisco Unified CM) or Cisco Unified Communications Manager Express (Cisco Unified CME) must be installed and configured in your network.

Note Cisco Unified CM and Cisco Unified CME cannot be installed on the server on which Cisco Unified CCX is active.

For additional information and instructions, refer the Cisco Unified CM documentation, which is available at this URL:

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

Make sure that you also install current Cisco Unified CM support patches. To obtain current support patches and installation instructions, go to this URL:

http://software.cisco.com/download/navigator.html?mdfid=270569179

Deploying Cisco Unified CCX with Cisco Unified CME

Table 3-1 provides an overview of the tasks to perform when you deploy Cisco Unified CME with Cisco Unified CCX. This table shows the following steps

- That you must perform before you install and configure Cisco Unified CCX
- The steps that you must perform after you install and configure Cisco Unified CCX.

Table 3-1 Overview of Deploying Cisco Unified CME with Cisco Unified CCX

	Procedure	Reference
Step 1	Verify that the appropriate version of Cisco Unified CME is installed on the router. Cisco Unified CME is installed on the router and the corresponding IOS image contains the Cisco Unified CME software.	Refer the *Cisco Unified Communications Manager Express 7.0 New Features* at: http://www.cisco.com/en/US/products/sw/voicesw/ps4625/tsd_products_support_series_home.html
Step 2	Configure the Cisco Unified CME router. **Tip** Note the AXL user ID, password, and the router IP address.	
Step 3	Configure Cisco Unified CME to enable interoperability with Cisco Unified CCX.	
Step 4	Install Cisco Unified CCX for Cisco Unified CME.	See Chapter 4, "Installing Cisco Unified CCX."
Step 5	Perform the initial setup of Cisco Unified CCX for Cisco Unified CME.	See Chapter 11, "Performing the Initial Setup of Cisco Unified CCX."

Table 3-1 Overview of Deploying Cisco Unified CME with Cisco Unified CCX (continued)

	Procedure	Reference
Step 6	Configure Cisco Unified CME Telephony Subsystem to enable interoperability with Cisco Unified CCX.	Refer the *Cisco Unified CCX Administration Guide* at: http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html
Step 7	Create users and assign the agent capability in Cisco Unified CCX.	

Installing the Required Operating System

Before you install Cisco Unified CCX, ensure that the latest version of the Windows 2003 Server operating system provided by Cisco is running on the server.

In addition to installing the operating system, ensure to install any applicable Microsoft patches and hotfixes.

To install the Windows 2003 Server operating system, patches, and hotfixes, refer the appropriate operating system installation document at this URL:

http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html

Note Each node in a Cisco Unified CCX cluster must have a unique Windows security identifier (SID). A duplicate SID can cause a variety of problems, including errors during the installation of MSDE 2000 or MS SQL Server 2000. A duplicate SID is usually a result of using tools such as Ghost to replicate the disk image across nodes.

For ongoing system management, regularly verify that you have installed the latest Microsoft patches and hotfixes that are approved by Cisco for use with servers on which you install Cisco Unified CCX.

Connecting a Server to the Network

Before you install Cisco Unified CCX, ensure that you connect the server to the network. Additionally, check the switch configuration and configure the link speed of the server network interface card (NIC) as appropriate for the switch.

By default, Cisco Unified CCX supports one NIC. The servers shown in Table 3-2 contain two NICs. If you connect one of these servers to the network, use the NIC that is shown in the table. The operating system disables the other NIC.

Table 3-2 Connecting Servers with Two NICs to the Network

Server Model	NIC Connection
Cisco MCS-7816	Use the NIC1 connector
Cisco MCS-7825	Use the NIC1 connector
Cisco MCS-7835 and Cisco MCS-7845	Use the NIC1 connector
IBM xSeries 330	Use the NIC1 connector

Note Cisco Unified CCX does not support NIC teaming.

Verifying Hardware Settings and Connectivity

This section describes procedures that you should follow to verify hardware settings and connectivity.

Note You should perform the procedures listed below after you install the Cisco-provided operating system on the servers in the Cisco Unified CCX cluster.

The procedures to verify hardware settings and connectivity are:

- Configuring Speed and Duplex Settings, page 3-7
- Checking Connectivity Between all Servers, page 3-7

- Verifying NIC Binding Order, page 3-9

Configuring Speed and Duplex Settings

You should verify the speed and duplex settings for each server and switch in the Cisco Unified CCX cluster and set them to the appropriate values. Follow these steps to verify the speed and duplex settings:

Step 1 Choose **Start > Settings > Network Connections**.

Step 2 Right-click a NIC and choose **Properties**.

Step 3 Click **Configure**.

Step 4 Click **Advanced**.

Step 5 If you have a Gigabit (GigE) switch, set Speed and Duplex to Auto. In case of a 100 MB switch, set Speed to 100 and Duplex to Full.

Step 6 Make sure that the corresponding switch port is set to the value that you configured in the previous step.

The way in which you set these values vary by driver. For more information, check your device documentation.

Step 7 Repeat this procedure for each NIC that is listed in the LAN or High-Speed Internet window.

Checking Connectivity Between all Servers

You should check connectivity between the servers in the Cisco Unified CCX cluster and take corrective action if you identify any issues.

Note Changing the host name of the Cisco Unified CCX server is not supported. You must specify a static IP address for the Cisco Unified CCX Server.

To check the connectivity, perform the basic name resolution tests by following the steps listed below on each server in the Cisco Unified CCX cluster:

Step 1 At a command prompt, enter **hostname**

The output of this command indicates the host name of the server. Make a note of this name.

Step 2 At a command prompt, enter **ipconfig**

The output of this command indicates the IP address of each NIC on the server. Make a note of this output.

Step 3 At a command prompt, enter **ping *hostname***, where *hostname* is the host name that you determined in **Step 1**.

The output of this command should be the IP address of the NIC that is used for the Cisco Unified CCX server. The output of this command should not be the IP Address of the NIC that is used for voice monitoring. The voice monitoring NIC should bind to the second NIC in the TCP/IP binding order.

Step 4 At a command prompt, enter **ping -a** *IP_address*, where *IP_address* is the IP address that you determined in **Step 2**.

The output of this command should be the same host name that you determined with the hostname command. If not, there is an issue with the hosts file or with DSN, which you should address before installing Cisco Unified CCX.

Step 5 At a command prompt, enter **ping *servername***, where *servername* is the host name of the server to which you want to verify IP connectivity.

In the output from this command:

- Make sure that only `Reply from IP_address....` displays in the output. If a message such as `Request Timed Out or Destination Host Unreachable` displays, there are IP routing issues or networking issues between the servers. You should address these issues before installing Cisco Unified CCX.
- Make sure that `Ping request could not find host hostname...` does not appear. If it does, there is likely a DSN issue, such as a host name that does not exist or a DSN server that cannot be reached. You should address this issue before installing Cisco Unified CCX.

Verifying NIC Binding Order

You should verify the NIC binding order for each server in the Cisco Unified CCX cluster. To do so, follow these steps:

Step 1 Choose **Start > Settings > Network Connections**.

Step 2 Choose **Advanced** at the top of the menu that pops up and then choose **Advanced Settings**.

Step 3 In the Advanced Settings window Adapters and Bindings tab, ensure that the NIC that is not used for voice monitoring is the one at the top of the list.

Obtaining License Files

License files determine the Cisco Unified CCX components that you will be able to activate for use on a server.

After you install Cisco Unified CCX, you perform the cluster setup procedure, as described in **Chapter 8**. As part of that procedure, you specify the location of your Cisco Unified CCX license file or files.

Your copy of Cisco Unified CCX includes at least one unique Product Activation Key (PAK), which you use to register your purchase. After you register your purchase, Cisco will send you an e-mail message with the appropriate license file as an attachment. You will receive one such e-mail message for each PAK that you register.

If you need assistance with PAK issues, send e-mail to licensing@cisco.com.

To register your PAK and obtain your license file or files, follow these steps:

Step 1 Locate your PAK.

If you have the Cisco Unified CCX DVD, your PAK is on its sleeve.

If you have already installed Cisco Unified CCX and you are adding or upgrading components, your PAK is on the Software License Claim Certificate that you received with your order.

Step 2 Take one of these actions to access the Product License Registration web page:

- If you are a registered user, go to this URL:

https://tools.cisco.com/SWIFT/Licensing/PrivateRegistrationServlet

- If you are not a registered user, go to this URL:

  https://tools.cisco.com/SWIFT/Licensing/RegistrationServlet

Step 3 Enter your PAK in the Enter PAK or Software Serial Number field and click **Submit**.

Cisco validates your order and e-mails the appropriate license file to you.

Step 4 Repeat Step 1 through Step 3, for each PAK that you want to register.

Step 5 When you receive your license file, save it on one of these computers:

- On the server on which you will install Cisco Unified CCX
- On any computer that you will be able to access from the server on which you will perform the cluster setup procedure

You can save your license files in any folder. Make a note of the folder name and location because you will need it later.

Caution Do not rename a license file.

You can save multiple license files in a single ZIP file. This enables you to specify all the license files at once while performing the cluster setup. While creating the ZIP file, follow these conventions:

- Do not create the ZIP file by selecting a folder that contains license files. Instead, create the file by selecting the license files themselves.
- Make sure that the **Save full path info** check box in the WinZip Add dialog box is not checked.

Caution If you are upgrading Cisco Unified CCX, do not create the ZIP file.

License Consumption

This section discusses the number of licenses consumed by the following:

- CAD / CSD logins
- Historical Reporting Client (HRC) sessions
- Recording sessions/playback viewer

CAD/CSD Logins

- Every CAD login consumes one license. If both CAD and CSD are started on the same desktop with the same user ID, then only one license is consumed.
- Every CSD login consumes one license.

HRC sessions

- HRC does not use any Cisco Unified CCX license. The only limitation on HRC is the number of simultaneous sessions, which is dependent on the deployment type. This can be configured in the Cisco Unified CCX Administration application in **System Parameters**.
- However, the maximum number of HRC sessions cannot be more than the number of seat licenses.

Recording sessions/playback viewer

- When the supervisor starts the recording after selecting a particular agent-call, one license is consumed per recording session.
- One license is consumed for viewing the recorded files. No additional licenses are consumed for playing-back the recorded files.
- The maximum number of simultaneous recording sessions is configured in the Cisco Unified CCX Administration application.

Cisco Unified CCX Disk Space Usage

This section provides information about determining disk space usage and requirements when you install Cisco Unified CCX.

By default, Cisco Unified CCX uses Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) for the Cisco Unified CCX databases. You can install Microsoft SQL Server 2000 after you install Cisco Unified CCX, which may increase the maximum size allowed for databases.

MS SQL Server 2000 is a separate product that is available from Cisco. If you want to install MS SQL Server 2000, ensure that you obtain the MS SQL Server 2000 disk and the *MS SQL Server 2000 for Cisco Unified CCX Resources Card*.

The size of the Cisco Unified CCX db_cra and db_cra_repository databases depends on the size of the hard disk on which the databases are stored and whether you are using MSDE 2000 or MS SQL Server 2000. Table 3-3 provides an example of disk space usage for these database types.

Table 3-3 Cisco Unified CCX Disk Space Usage Examples

Database Type	Space Allocated for 72 GB Hard Disk	Space Allocated for 80 GB Hard Disk
MSDE 2000	• db_cra: 2 GB • db_cra_repository: 2 GB	
MS SQL Server 2000	• db_cra: 10 GB • db_cra_repository: 3 GB	• db_cra: 13 GB • db_cra_repository: 3 GB

Note The FCRasSvr database takes a minimum amount of disk space. It is initially allocated 1 MB of disk space and is set to auto grow.

Disabling Virus Scanning and the Cisco Security Agent

Note

- Disable all virus scanning (McAfee, Norton, Symantec etc.), and the Cisco Security Agent during your installation and upgrade procedures.
- After you complete the install or repair procedure, ensure that you re-enable virus scanning or the CSA service.
- For instructions about disabling and enabling the CSA service, refer the *Installing Cisco Security Agent for Cisco Unified CCX*, which is available at: http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html
- After you re-enable virus scanning, run a full virus scan on the server on which you disabled virus scanning.

Configuring Cisco Unified CCX

After you install and perform the initial setup of Cisco Unified CCX, you use Cisco Unified CCX Administration to perform a variety of additional setup and configuration tasks.

For additional information about configuring Cisco Unified CCX, and for detailed instructions, refer the *Cisco Unified Contact Center Express Administration Guide*.

Implementing Additional Applications

Your telephony solution may include a number of applications and plugins that work with Cisco Unified CCX to provide additional functionality.

Table 3-4 describes some of these applications and provides references to documents that provide installation and related information. After installation, many of these applications require configuration through Cisco Unified CCX Administration before they will function with Cisco Unified CCX. For detailed configuration information, refer the following documents:

- *Cisco Unified Contact Center Express Administration Guide*
- *Cisco Unified Contact Center Express Getting Started with Cisco Unified IP IVR*
- *Cisco Unified Contact Center Express Getting Started with Cisco Unified CCX*

For additional information about compatibility among applications, refer the *Cisco Unified Contact Center Express Software and Hardware Compatibility Guide*, which is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html

The following guidelines apply to additional applications:

- Adding any third-party software to a Cisco Unified CCX system may impact the functions of the Cisco Unified CCX software, and may affect Cisco support for Cisco Unified CCX. Such third-party software includes Microsoft critical security updates, Netscape Navigator, and other non-required third-party software.

- Do not install any additional Cisco-approved applications until you complete the installation and configuration of Cisco Unified CCX on every server in the cluster.
- If you do not know whether an application is approved for installation, do not install it on a server that is running Cisco Unified CCX. Installing unsupported software can cause performance problems.
- Do not manually install the Cisco Unified CCX Editor on a server that is running Cisco Unified CCX. The Cisco Unified CCX Editor application is installed by default when you install Cisco Unified CCX and you will receive an error message if you try to reinstall it.
- Do not install the following Cisco products on a server that is running Cisco Unified CCX:
  - Automatic speech recognition (ASR) or text-to-speech (TTS) applications
  - Cisco Agent Desktop (CAD)
  - Cisco Unified CM
  - Cisco Conference Connection
  - Cisco Unified Contact Center Express Historical Reporting
  - Cisco Emergency Responder
  - Cisco Personal Assistant
  - Cisco Supervisor Desktop (CSD)
  - Cisco Unity

Table 3-4 Additional Applications

Application	Description	Reference
ASR and TTS	ASR applications allow callers to choose menu options or to provide information by speaking. TTS applications convert plain text (UNICODE) into speech, which can be played to a caller.	Refer the documentation that is provided by your ASR or TTS vendor.
CAD	Portion of CAD 6.6 that resides on the computer of a contact center agent and that is used to handle customer contacts. **Note** No CAD applications can be coresident with the Microsoft Exchange Server.	Refer the *Cisco CAD Installation Guide 6.6 for Cisco Unified Contact Center Express, Release 7.0(1).* http://www.cisco.com/en/US/products/sw/custcosw/ps427/prod_installation_guides_list.html
CSD	Portion of CAD 6.6 that resides on the computer of a contact center supervisor and that is used to help manage a team of agents.	Refer the *Cisco CAD 6.6 Installation Guide for Cisco Unified Contact Center Express, Release 7.0(1)* http://www.cisco.com/en/US/products/sw/custcosw/ps427/prod_installation_guides_list.html
Cisco Unified CCX Editor	Lets you create, modify, validate, and debug Cisco Unified CCX scripts.	Refer the *Cisco Unified Contact Center Express Administration Guide* at http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html and *Cisco Unified Contact Center Express Scripting and Development Series* documents at http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_user_guide_list.html

Table 3-4 Additional Applications (continued)

Application	Description	Reference
Cisco Unified CCX Historical Reporting	Lets you generate, view, print, schedule, and export a wide variety of reports that provide information about the call activities of your Cisco Unified CCX system.	Refer the *Cisco Unified Contact Center Express Historical Reporting User Guide* at http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_user_guide_list.html.
CSA	Protects the server against unauthorized intrusion. Install the CSA on all servers in the cluster.	Refer the *Installing Cisco Security Agent for Cisco Unified Contact Center Express* at http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_installation_guides_list.html.
McAfee anti-virus software	Provides virus prevention, detection, and elimination. Install the currently-supported version of this software on all servers in the cluster.	Refer the *Using McAfee VirusScan Enterprise 7.0 with Cisco Unified Communications Manager*, which is available at this URL: http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_implementation_design_guide09186a00801cd0bf.html

Installation Notes

Review the following guidelines before you install Cisco Unified CCX:

- You will need Cisco Unified CCX installation disks when you install or repair Cisco Unified CCX. If you have a valid Essential Operate Services – Software (ESW) or Cisco Unified Communications Software Subscription (Cisco Unified CSS) service contract, you can obtain the latest Cisco Unified CCX media by using the Cisco Product Upgrade Tool (PUT).
- Uninstalling Cisco Unified CCX is not supported. If you want to remove Cisco Unified CCX from a server, you must re-image the server. Make sure to back up your Cisco Unified CCX data before you re-image or the data will be lost permanently.
- Do not use Terminal Services, Virtual Network Computing, Integrated Lights Out, or PCAnywhere to run the Cisco Unified CCX Installer remotely.
- Make sure that there are no Terminal Services sessions connected to the server on which you are running the Cisco Unified CCX Installer. To prevent remote access to the server when you are running the Installer, disable Terminal Services and reboot the server before you perform the procedure.
- Do not install Cisco Unified CCX on a computer that is running Microsoft Active Directory. If Microsoft Active Directory is running on the computer on which you will install Cisco Unified CCX, move Microsoft Active Directory to another computer.
- If the server on which you will install Cisco Unified CCX is in a Microsoft Active Directory domain, move the server from the domain to a local workgroup and reboot the server before you begin the installation.
- If you are installing Cisco Unified CCX on an IBM-345-2400, install IBM X345 BIOS upgrade 1.08 to prevent poor voice quality in the Cisco Unified IP IVR system. If you are a registered user, you can obtain this BIOS upgrade and instructions for installing it at this URL:

  http://www.cisco.com/cgi-bin/tablebuild.pl/cmva-3des
- Running previous version CRS installers on a system that is configured with Cisco Unified CCX version 7.0(1) is not supported.
- Disable pop-up blocker functionality from the browsers.

- If you have other software that blocks pop-up windows from appearing on a web browser, disable the software before installing Cisco Unified CCX 7.0(1). Such software can interfere with some Cisco Unified CCX installation windows.

CHAPTER 4

Installing Cisco Unified CCX

This chapter provides instructions for installing the Cisco Unified CCX software on a server. You perform the installation procedure in the following cases:

- To install Cisco Unified CCX 7.0(1) for the first time
- To change the language for the CAD or the CSD

Note Every time you need to change a Cisco Unified CCX deployment from Cisco Unified CM to Cisco Unified CME or vice versa, you need to wipe off the entire Cisco Unified CCX Server including the operating system, and start a fresh installation.

- To reinstall Cisco Unified CCX

Installing the Cisco Unified CCX Software

When you install Cisco Unified CCX, follow these guidelines:

- If you see a dialog box that contains an error message or that prompts you to perform additional tasks, follow the on-screen prompts to continue. For more information and assistance, see **Chapter 12, Cisco Unified CCX Installer Messages and Log Files**.
- To change information that you enter in an installation window before you complete the installation, click **Back** until you see the window that you want. Then make the desired change.

If you need to change information after you complete the installation, see **Chapter 11, "Changing Your Unified CCX Deployment".**

- To cancel the installation at any time, click **Cancel** in an installation window.
- Before you start your installation, ensure that you review the information and follow the guidelines as listed in the **"Cisco Unified CCX Installation Overview" section of Chapter 1.**

Note Network installation of Cisco Unified CCX is not supported. This applies to installation through a shared network DVD drive.

Note When you re-image the machine, copy the logs under C: drive and C:\Documents and Settings\Administrator\Local Settings\Temp\UCCXInstallation\logsFromLastRun\UccxInstallLog_*.zip and save them in another server location.

To install Cisco Unified CCX on a server, perform the following steps. The installation process can take up to two hours to complete, depending on the complexity of the installation.

Step 1 Log into Windows as the Administrator.

Step 2 Insert the Cisco Unified CCX DVD.

If the Cisco Unified Contact Center Express Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CiscoUnifiedCCXAutorun.exe**.

Step 3 Click **OK** in the pop-up window that prompts:

```
The Cisco Unified CCX Installer is about to start. Click OK to
continue.
```

The Cisco Unified CCX Installer performs a series of checks and processes.

After a few moments, the Welcome window displays, as shown in **Figure 4-1**.

Additionally, a pop-up window displays the following message:

```
*Warning* Disable Cisco Security Agent and virus control
software before proceeding. These applications can interfere
with the Cisco Unified CCX Installer procedure that you are
performing and can cause the system to become unrecoverable.
```

Figure 4-1 Welcome Window

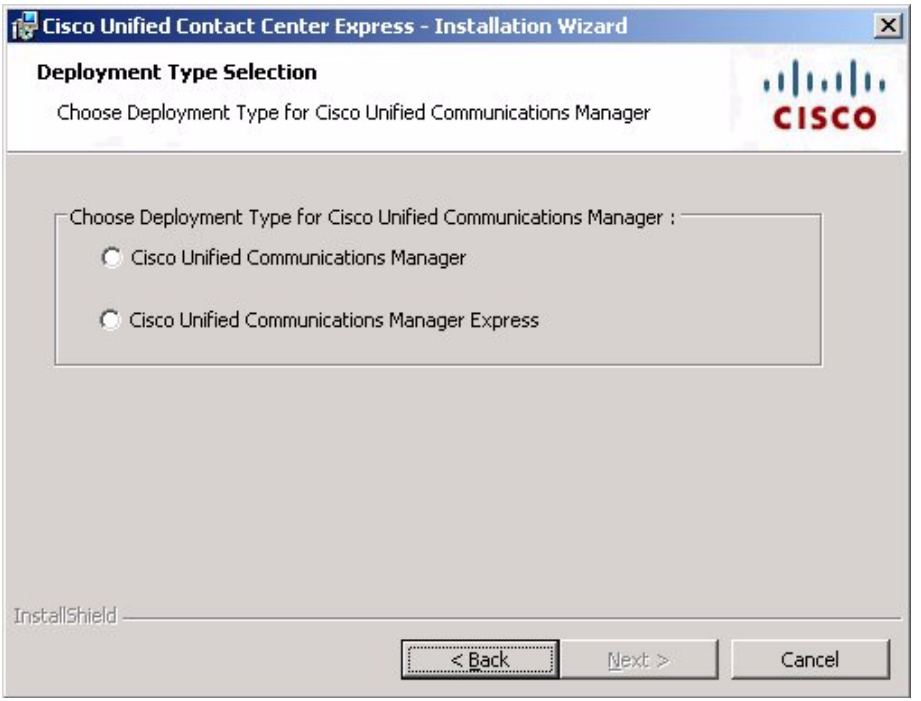
Make sure that all virus control software and CSA are disabled and click **OK** in the pop-up window.

Step 4 In the Welcome window, click **Next**.

It might take a few minutes for the **Next** button to become active and available.

The Deployment Type Selection window displays, as shown in **Figure 4-2**.

Figure 4-2 Deployment Type Selection Window



Step 5 In the Deployment Type Selection Window, take these actions:

a. Choose either of these options:

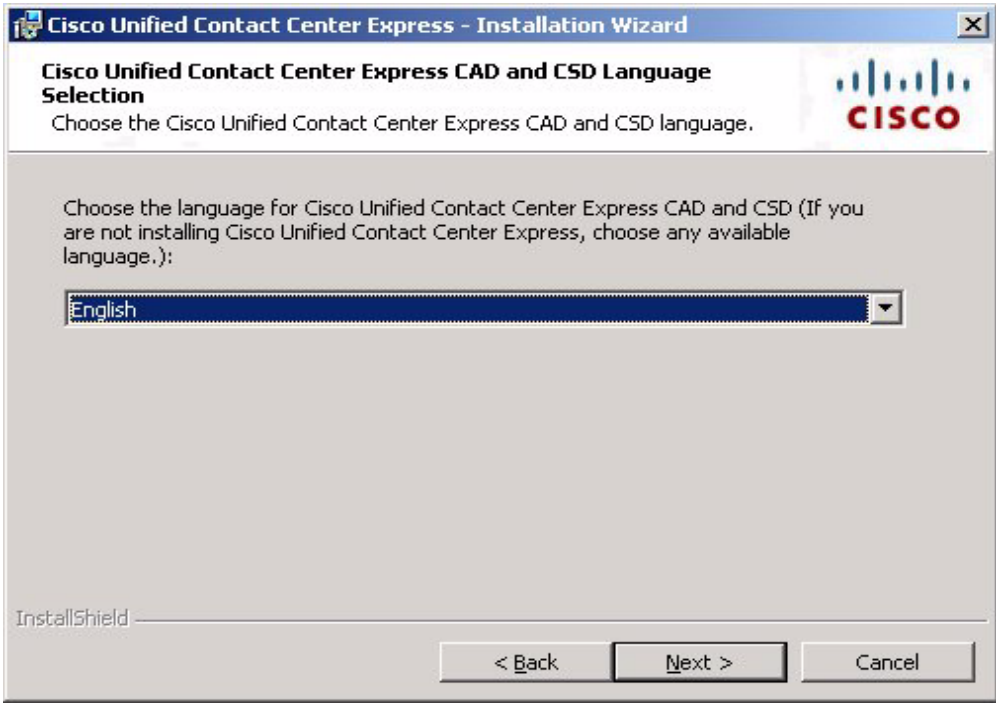
- **Cisco Unified Communications Manager**—Choose this option if you wish to use Cisco Unified CCX with Cisco Unified CM
- **Cisco Unified Communications Manager Express**—Choose this option if you wish to use Cisco Unified CCX with Cisco Unified CME

Note UCCX 7.0(1) supports UC500 Series Router. If you deploy Unified CCX 7.0(1) with the UC500 Series Router; during installation, select Cisco Unified Communications Manager Express as the deployment type in the Unified CCX 7.0(1) installation wizard.

b. Click **Next**.

The Cisco Unified Contact Center Express CAD and CSD Language Selection window displays, as shown in **Figure 4-3**.

Figure 4-3 Cisco Unified Contact Center Express CAD and CSD Language Selection Window



Step 6 In the Cisco Unified Contact Center Express CAD and CSD Language Selection Window, take these actions:

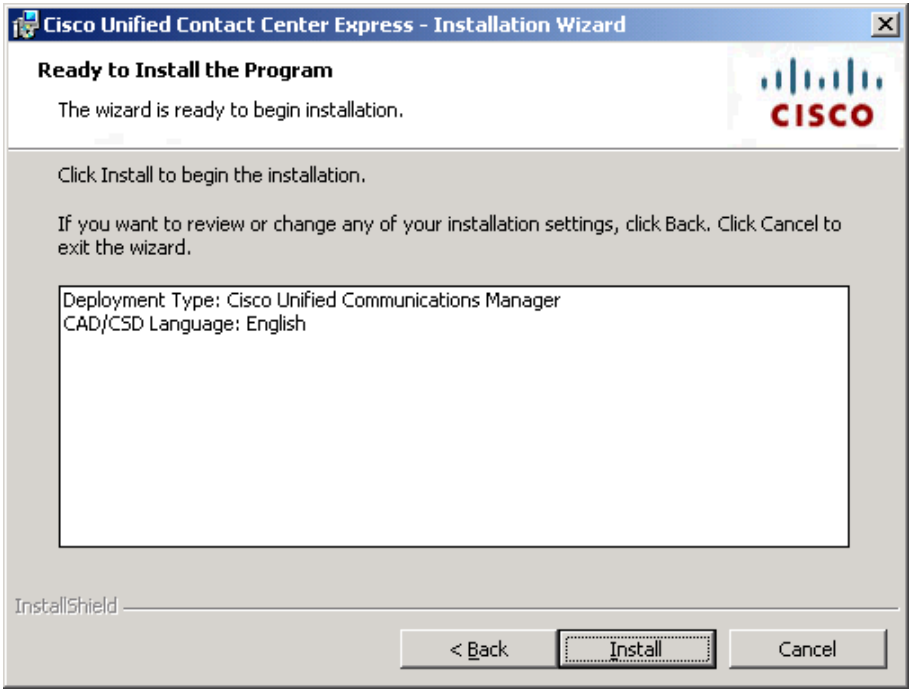
a. Choose the language that you wish to use with the CAD and the CSD.

b. Click **Next**.

The Ready to Install the Program window displays, as shown in **Figure 4-4**. This window shows the deployment type and the language that you selected.

Note If you are upgrading from CRS 4.5 to Unified CCX 7.0(1), ensure that you have the same CAD and CSD Language Selection settings as that of your CRS 4.5 system.

Figure 4-4 Ready to Install the Program Window



Step 7 In the Ready to Install the Program window, click **Install**.

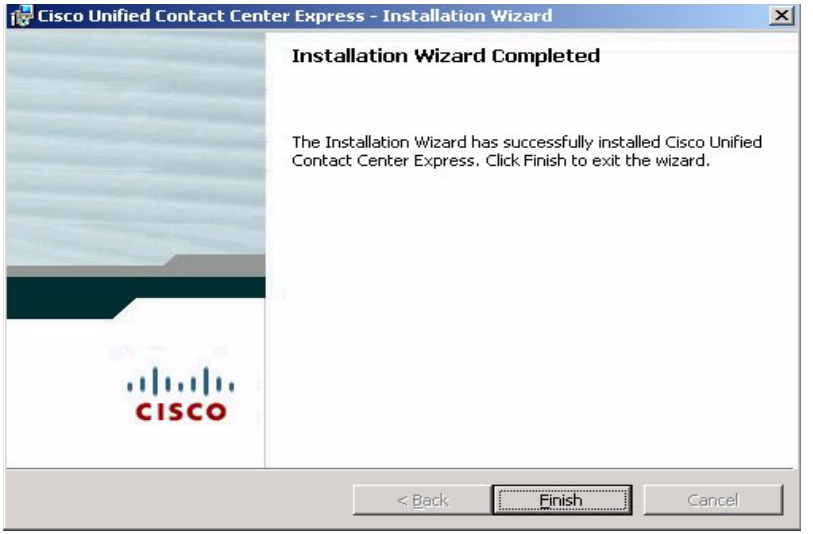
A pop-up window displays the message that the J2SE Runtime Environment setup has completed successfully.

Step 8 In the pop-up window, click **OK**.

The installation begins. A series of windows shows the progress of the installation process.

When the process completes, the Installation Wizard Completed window displays, as shown in **Figure 4-5.**

Figure 4-5 Installation Wizard Completed Window



Step 9 In the Installation Wizard Completed window, click **Finish**.

The system prompts you with an option to reboot the system.

Step 10 Take either of these actions:

- If you want to install SQL Server 2000, click **No** to avoid rebooting the system, and refer the *MS SQL Server 2000 for Cisco Unified CCX Resources Card* for installation instructions.

  After you install SQL Server 2000, perform the appropriate initial set up procedure. To perform that procedure, see **Chapter 8, "Performing the Initial Setup of Cisco Unified CCX"**.

- If you do not want install SQL Server 2000, click **Yes** to reboot the system and when the system restarts, log into Windows as the Administrator.

Note If you are upgrading from CRS 4.5 to Unified CCX 7.0(1), and if you had installed MS SQL Server 2000 on your CRS 4.5 system, you should install MS SQL Server 2000. Otherwise, you may ignore the MS SQL Server 2000 installation.

The Cisco Unified CCX Administration application starts automatically so that you can perform the appropriate initial set up procedure.

Note If you get the error code 1500 and if your Cisco Unified CCX installation fails, reboot the system before trying to re-install Cisco Unified CCX. The installation failure may have occurred due to a faulty JRE or MSDE installation. In case the installation terminates after the JRE and MSDE installation, you need to rebuild the setup from the beginning since roll back is not supported.

CHAPTER 5

Cisco Unified CCX 7.0(1) License Validator

The Cisco Unified 7.0(1) License Validator verifies the correctness and validity of your Cisco Unified CCX 7.0(1) license file for an upgrade.

You use this tool only when you are upgrading CRS 4.5(x) or CRS 5.0(x) to Cisco Unified CCX 7.0(1).

Note

- If you haven't already downloaded the License Validator tool, download it from: http://software.cisco.com/download/release.html?mdfid=282126412&softwareid=282360307&release=7.0%281%29&relind=AVAILABLE&rellifecycle=&reltype=latest to the local disk on your Cisco Unified CCX server. The executable (.exe) that gets downloaded is the **CUCCX_7.0.1_ License_Validator.exe.**

  If you are unable to open the link, copy and paste the URL in your web browser.

- The License Validator tool is **mandatory** for upgrading from CRS 5.0(x) to Cisco Unified CCX 7.0(1).
- It is **optional** for upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1). However, you are recommended to validate the license when upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1).

If you are upgrading from CRS 5.0(x) to Cisco Unified CCX 7.0(1), the Cisco Unified CCX 7.0(1) installer utility detects whether the License Validator was run previously.

If you do not run the License Validator before running the installer, the installation will abort, giving an error message.

Before you run this tool, obtain your Cisco Unified CCX 7.0(1) license file or upgrade license file and copy it to a directory on the Cisco Unified CCX server.

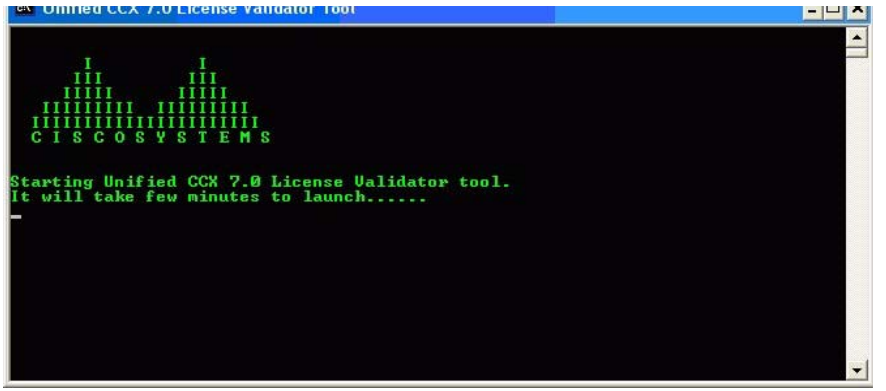
To run the 7.0(1) License Validator, follow these steps. The following steps are for an upgrade from CRS 5.0(x) to Cisco Unified CCX 7.0(1):

Step 1 Double click the Cisco Unified CCX 7.0(1) License Validator.exe. This will install the License Validator tool in the specified location. The default location is **C:\Program Files\Cisco Unified CCX 7.0(1) License Validator.**

Note If the tool is already installed, navigate to the location where you installed the tool (The default location is **C:\Program Files\Cisco Unified CCX 7.0(1) License Validator)** and double click **Validator.bat** from the location.

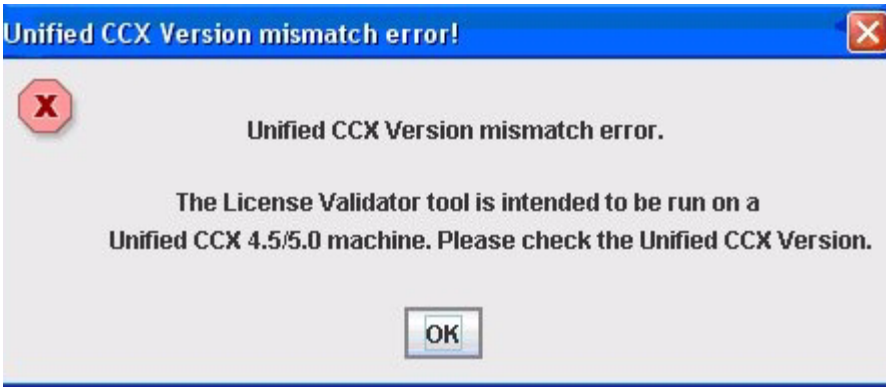
Step 2 The 7.0(1) License Validator window is displayed.

Figure 5-1 Cisco Unified CCX 7.0(1) License Validator Tool Window



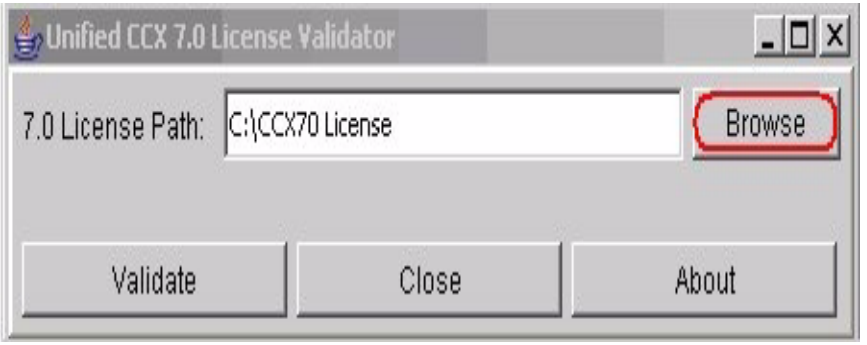
The License Validator tool is intended to be run on nodes with specific Cisco Unified CCX Versions (CRS 4.5(x) and CRS 5.0(x)). If there is any version-mismatch, the tool will display the following error message:

Figure 5-2 Cisco Unified CCX Version Mismatch Error Window



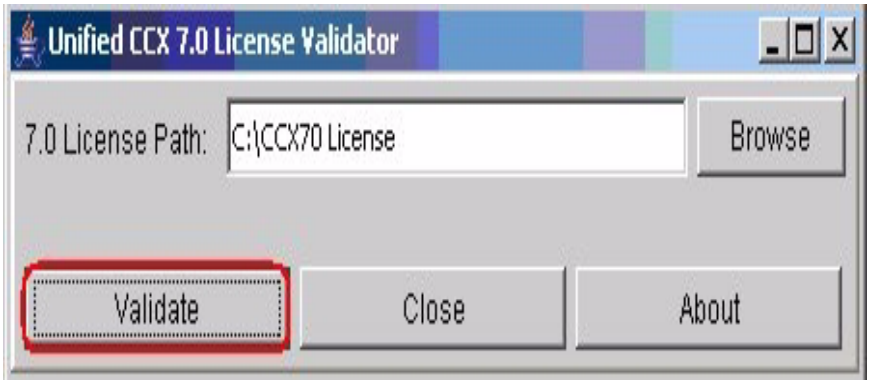
Step 3 Click the Browse button in the 7.0 License Path field and navigate to the location where you stored the Cisco Unified CCX 7.0(1) license file or the 7.0(1) upgrade license file.

Figure 5-3 Cisco Unified CCX 7.0 License Validator Window



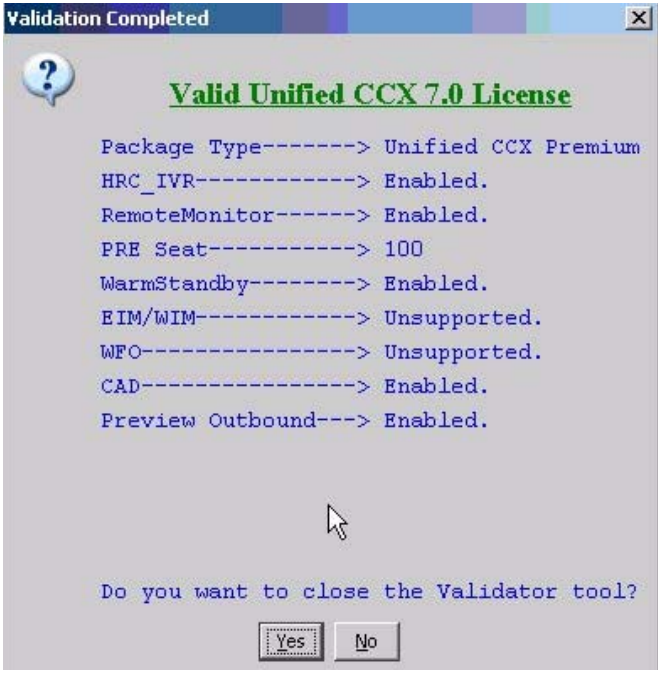
Step 4 Click **Validate** to validate the license files for upgrading to Cisco Unified CCX 7.0(1).

Figure 5-4 Cisco Unified CCX 7.0 License Validator Window



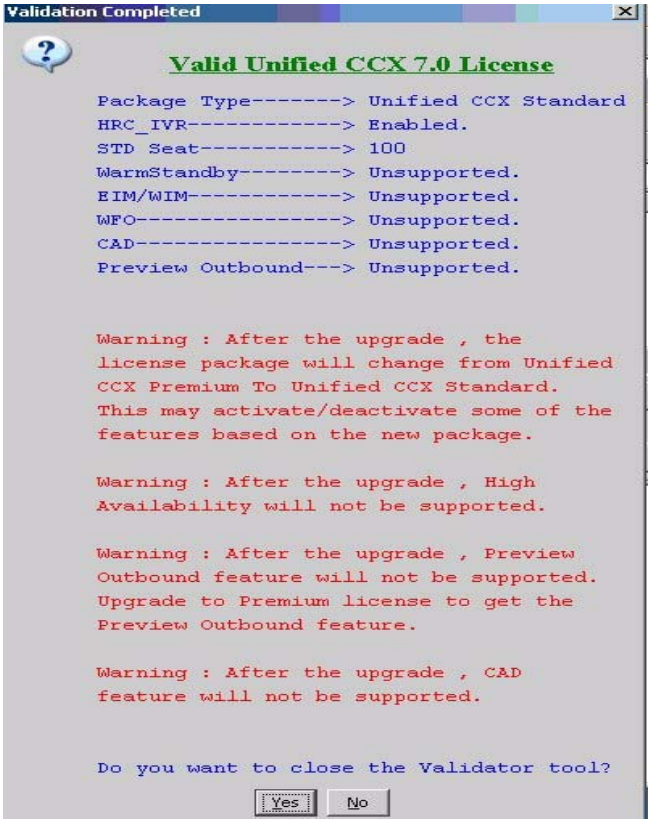
If the validation is successful, the tool will display a "Valid License" dialog box with all the upgrade license information.

Figure 5-5 License Validation Completion Window



If there is any license mismatch, the tool will display the following warning messages:

Figure 5-6 License Validation Completion Window



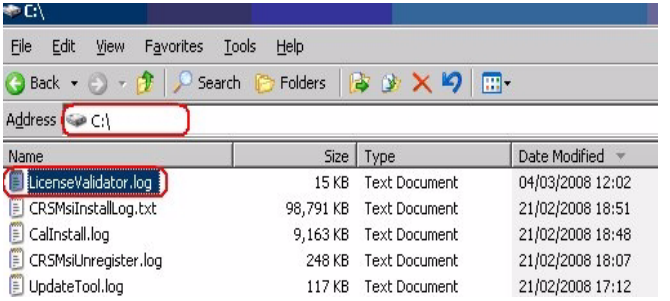
If it is not a valid upgrade license, the tool will display an error message. You must obtain a valid license file before you can upgrade Cisco Unified CCX.

Figure 5-7 License Error Window

- Cisco Unified IP Queue Manager is not supported.

Step 5 The License Validator log file is generated as C:\LicenseValidator.log.

Figure 5-8 License Log Window



CHAPTER 6

Upgrading CRS 4.0(5x) to Cisco Unified CCX 7.0(1)

This chapter describes how to upgrade from CRS 4.0(5x) to Cisco Unified CCX 7.0(1) using the Data Migration Tool (DMT, version 1.0).

Read this chapter if you are running CRS 4.0(5x) or IP IVR 4.0(5x) and are ready to upgrade to Unified CCX 7.0(1) or Cisco Unified IP IVR 7.0(1).

DMT migrates data by backing it up from a system running CRS 4.0(5x) and restoring the backed up data automatically on a system installed with Unified CCX 7.0(1) while you upgrade from CRS 4.0(5x) to Unified CCX 7.0(1).

Note DMT supports the backup process on a system running CRS 4.0(5x) and its services releases (SR1 and SR2) including ES releases, if any.

Restoring backed up data on the Unified CCX 7.0(1) system must be done as soon as you finish installing Unified CCX 7.0(1) on a new system and before you perform the initial setup configuration.

Note If you are running Cisco CRS versions earlier than 4.0(5x), upgrade to Cisco CRS 4.0(5x) in order to use this tool. You can also manually upgrade to Cisco CRS 5.x using the available white paper and then refer to the Cisco Unified CCX 7.0(1) Installation Guide to upgrade to Unified CCX 7.0(1)

The entire upgrade process from CRS 4.0(5x) to Unified CCX 7.0(1) involves the following steps:

1. Backing up data on the CRS 4.0(5x) system.
2. Upgrading to latest compatible Cisco Unified Communications Manager (Unified CM) and installing Unified CCX 7.0(1).

Note While the data migration activity using DMT on the CRS 4.0(5x) system currently supports the Cisco CallManager versions 4.1(3) and 4.2(3), refer to the *Cisco Unified Contact Center Express Software and Hardware Compatibility Guide* to find all the supported versions of Cisco Unified CM compatible with the Unified CCX 7.0(1) system to successfully perform the data migration activity. If you are running any other version of Cisco CallManager with your CRS 4.0(5x) system, upgrade Cisco CallManager to the version 4.1(3) or 4.2(3), and then perform the data migration activity. For more information, refer to the *Cisco Unified Contact Center Express Software and Hardware Compatibility Guide*.

3. Restoring the backed up data on a Unified CCX 7.0(1) system.

Caution DMT only supports the base version of Unified CCX 7.0(1) for the successful data migration process.

For more information on how to obtain and use DMT, refer to the *Cisco Unified Contact Center Express Data Migration Tool User Guide, Release 1.0*.

CHAPTER 7

Upgrading CRS 4.5(x) to Cisco Unified CCX 7.0(1)

This chapter describes how to upgrade from CRS 4.5(x) to Cisco Unified CCX 7.0(1).

The upgrade automatically installs all Cisco Unified CCX components. Your Cisco Unified CCX licenses determine which components you can activate.

This chapter includes the following sections:

- Back Up Cisco Unified CCX Data, page 7-1
- Upgrading Cisco Unified CM, page 7-5
- Upgrading the Cisco Unified CCX Software, page 7-6
- Upgrading from CRS 4.5(x) standalone (SA) deployment to Cisco Unified CCX 7.0(1) standalone deployment:, page 7-7
- Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) high availability deployment, page 7-14

Refer Chapter 7, for instructions on Upgrading to Cisco Unified CCX 7.0(1) for Cisco Unified CSS Users.

Back Up Cisco Unified CCX Data

To back up your CRS 4.5(x) data, refer to the documentation available at:

http://www.cisco.com/en/US/docs/voice_ip_comm/cust_contact/contact_center/crs/express_4_5/installation/for_bars/crs451br.pdf

Re-Imaging Cisco Unified CCX Servers

After you back up your CRS 4.5(x) data and before you install the Cisco Unified CCX 7.0(1) software, you must re-image the Cisco Unified CCX server.

Caution The re-imaging process deletes all data on a server. Do not re-image the server until you back up your CRS 4.5(x) data.

Note

- If you are replacing a Cisco Unified CCX server, perform the re-imaging procedure on the sever that you intend to replace.
- Before you re-image or replace a server, make a note of its host name, Data Source Names (DSNs) (if configured), IP address and cluster information.

To re-image a server, perform the following steps.

Step 1 **Install the Cisco-provided Windows 2003 Server Operating on the server.**

To install the Windows 2003 Server operating, patches, and hotfixes, refer the appropriate operating installation document at:

http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html

Additionally, install any applicable Microsoft patches and hotfixes.

Step 2 **Connect the Server to the Network.**

Check the switch configuration and configure the link speed of the server Network Interface Card (NIC) as appropriate for the switch.

By default, Cisco Unified CCX supports one NIC. The servers shown in the following table contains two NICs. If you connect one of these servers to the network, use the NIC that is shown in the table. The operating disables the other NIC.

Table 7-1 Connecting Servers with Two NICs to the Network

Server Model	NIC Connection
Cisco MCS-7816	Use the NIC1 connector
Cisco MCS-7825	Use the NIC1 connector
Cisco MCS-7835 and Cisco MCS-7845	Use the NIC1 connector
IBM xSeries 330	Use the NIC1 connector

Note Cisco Unified CCX does not support NIC teaming.

Step 3 **Verify your hardware settings and connectivity as follows:**

1. **Configure Speed and Duplex Settings:**
   - Choose **Start > Settings > Network Connections**
   - Right-click a NIC and choose **Properties**
   - Click **Configure**
   - Click **Advanced**
   - If you have a Gigabit (GigE) switch, set Speed and Duplex to Auto. In case of a 100 MB switch, set Speed to 100 and Duplex to Full.
   - Make sure that the corresponding switch port is set to the value that you configured in the previous step. The way in which you set these values vary by driver. For more information, check your device documentation.
   - Repeat this procedure for each NIC that is listed in the LAN or High-Speed Internet window.
2. **Check the connectivity between all servers:**

Note
- You should check connectivity between the servers in the Cisco Unified CCX cluster and take corrective action if you identify any issues.
- Changing the host name of the Cisco Unified CCX server is not supported. You must specify a static IP address for the Cisco Unified CCX Server.

To check the connectivity, you must perform the basic name resolution test on each server in the Cisco Unified Cluster as follows:

a. At a command prompt, enter **hostname**

The output of this command indicates the host name of the server. Make a note of this name.

b. At a command prompt, enter **ipconfig**

The output of this command indicates the IP address of each NIC on the server. Make a note of this output.

c. At a command prompt, enter **ping *hostname***, where *hostname* is the host name that you determined in Step a.

The output of this command should be the IP address of the NIC that is used for the Cisco Unified CCX server, and not the IP Address of the NIC that is used for voice monitoring. The voice monitoring NIC should bind to the second NIC in the TCP/IP binding order.

d. At a command prompt, enter **ping -a** *IP_address*, where *IP_address* is the IP address that you determined in Step b.

The output of this command should be the same host name that you determined with the hostname command. If not, there is an issue with the hosts file or with DSN. You should address the issue before installing Cisco Unified CCX.

e. At a command prompt, enter **ping *servername***, where *servername* is the host name of the server to which you want to verify IP connectivity.

In the output from this command:

- Make sure that only `Reply from IP_address....` displays in the output. If you see messages such as `Request Timed Out` or `Destination Host Unreachable` displays, it indicates IP routing issues or networking issues between the servers. You should address these issues before installing Cisco Unified CCX.
- Make sure that `Ping request could not find host` *`hostname`*`...` does not appear. If it does, there is likely a DSN issue, such as a host name that does not exist or a DSN server that cannot be reached. You should address this issue before installing Cisco Unified CCX.

3. **Verifying NIC Binding Order:**

You should verify the NIC binding order for each server in the Cisco Unified CCX cluster as follows:

a. Choose **Start > Settings > Network Connections**.

b. Choose **Advanced** at the top of the menu that pops up and then choose **Advanced Settings**.

c. In the Advanced Settings window **Adapters and Bindings** tab, ensure that the NIC (that is not used for voice monitoring) is the one at the top of the list.

Step 4 Configure the server with the same IP address and host name that it had before you re-imaged it.

For a replacement server, use the IP address and host name of the server that it is replacing. For instructions, refer your Windows network documentation.

Step 5 Install other applications, such as the CSA, as needed.

Step 6 Reconfigure DSN on this server (if it was configured earlier).

Upgrading Cisco Unified CM

After re-imaging the Cisco Unified CCX server, upgrade the Cisco Unified CM.

Caution Before you upgrade Cisco Unified CM, ensure that you back up your existing CRS 4.5(x) data.

For additional information and instructions, refer the Cisco Unified CM documentation, which is available at this URL:

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

Ensure that you also install current Cisco Unified CM support patches. To obtain current support patches and installation instructions, go to:

http://software.cisco.com/download/navigator.html?mdfid=278875386

Upgrading the Cisco Unified CCX Software

The steps to upgrade Cisco Unified CCX Software are as follows:

Step 1 Install Cisco Unified CCX. Refer **Chapter 4 f**or instructions to Install Cisco Unified CCX**.**

Step 2 Perform the initial setup procedure. For instructions, refer **Chapter 9**.

Step 3 Depending on your CRS deployment, you can use the following options:

- Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) standalone deployment
- Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) high availability deployment

Note The License Validatorj tool is used to verify if you have the correct upgrade license file. Using the License Validator tool is optional during your uprade from CRS 4.5(x) to Cisco Unified CCX 7.0(1). For information about the **License Validator tool, refer Chapter 5.**

Upgrading from CRS 4.5(x) standalone (SA) deployment to Cisco Unified CCX 7.0(1) standalone deployment:

Step 1 Log in to Cisco Unified CCX Administration from the Authentication page.

Figure 7-1 Cisco Unified CCX Authentication

Yo log on to the system, enter the following credentials:

User Identification: Administrator

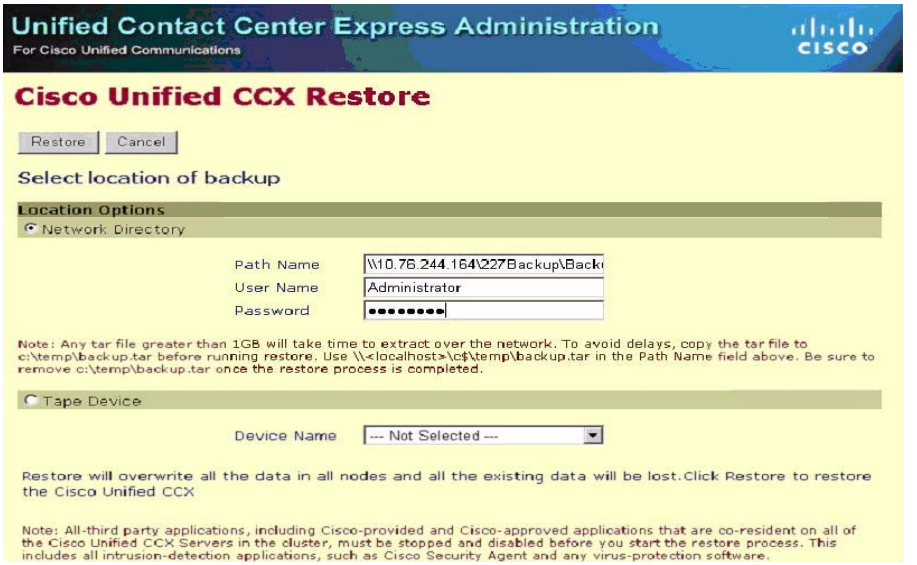
Password: ciscocisco

The Unified CCX Administrator Setup window is displayed.

Figure 7-2 Cisco Unified CCX Administrator Setup

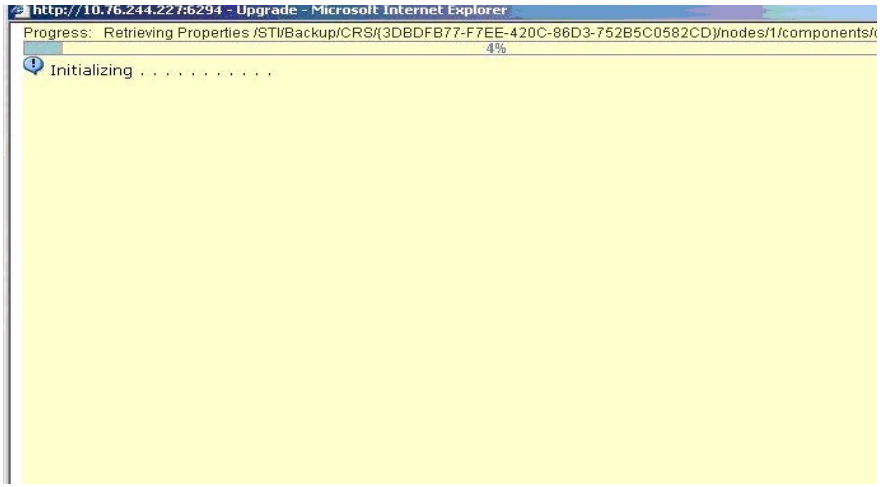
Step 2 Select the **Restore** option and click on **Setup.** The Cisco Unified CCX Restore window is displayed.

Figure 7-3 Cisco Unified CCX Restore Window



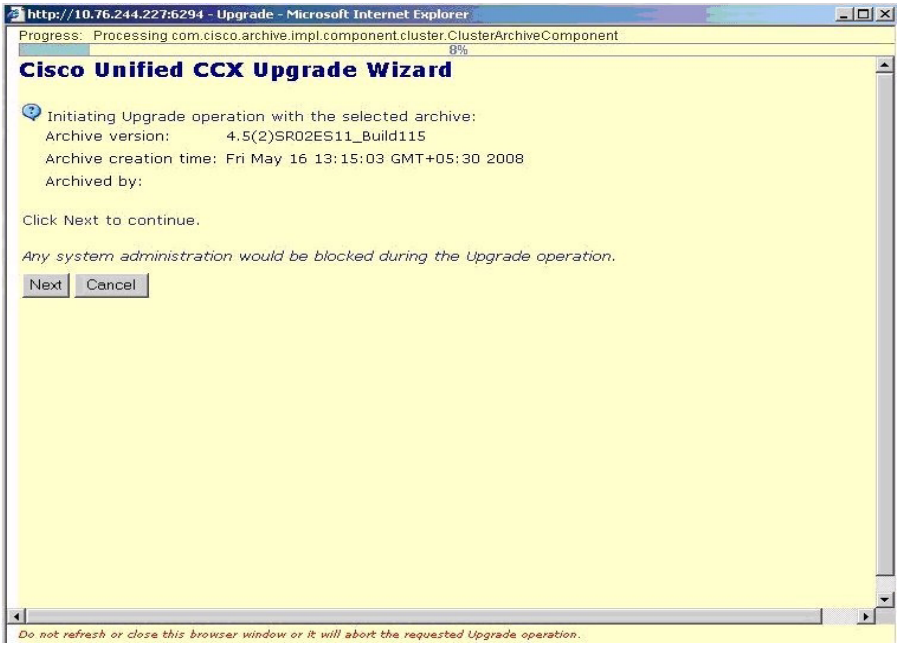
Step 3 In the Network Directory Option, enter the location of the Restore **Path, User Name and Password.** Select the **Tape Device** from the available list. Click **Restore.** The Restore progress window is displayed.

Figure 7-4 Restore Progress Window



After the Restore operation is complete, you are navigated to the Cisco Unified CCX Upgrade Wizard

Figure 7-5 Cisco Unified CCX Upgrade Wizard

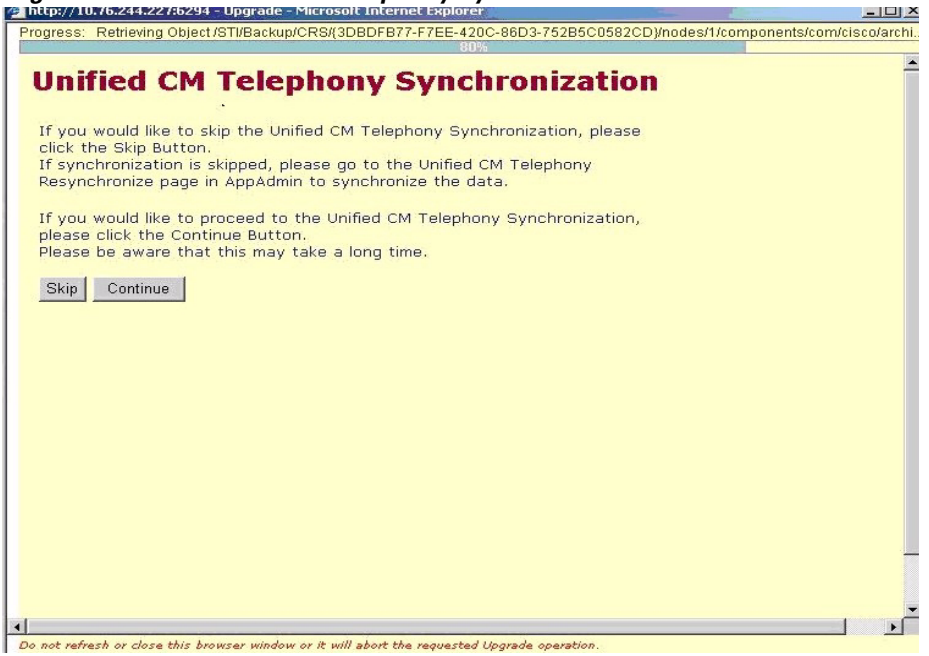


Step 4 Click **Next.** The User Configuration Migration window is displayed.

Figure 7-6 User Configuration Migration Window

Step 5 Choose the CRS 4.5 Profile from the available list and click **OK.** The Unified CM Telephony Synchronization window is displayed.

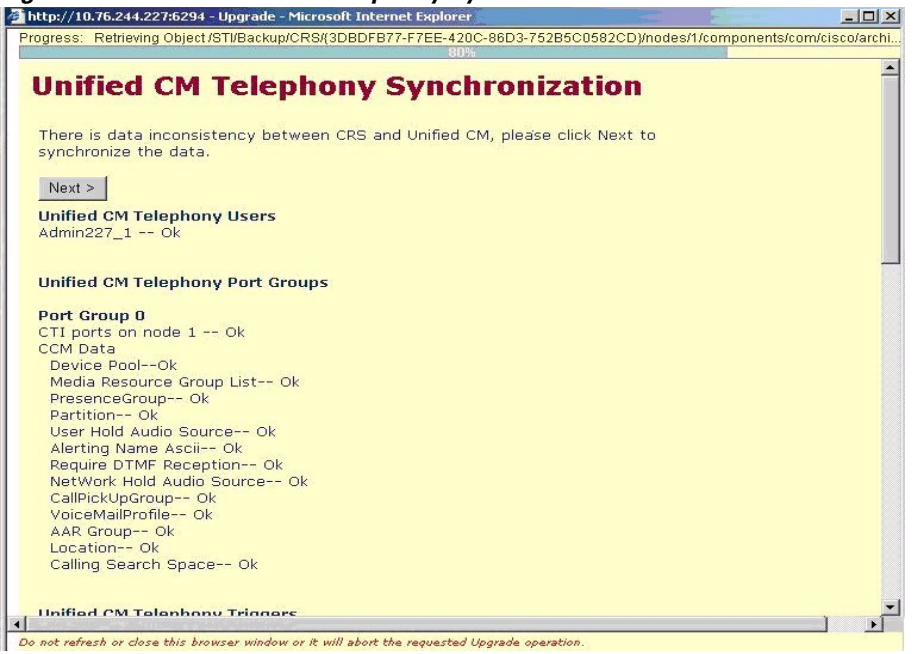
Figure 7-7 Unified CM Telephony Synchronization Window



Note You can choose to Skip this step and perform the synchronization through the Unified CCX Administration Page.

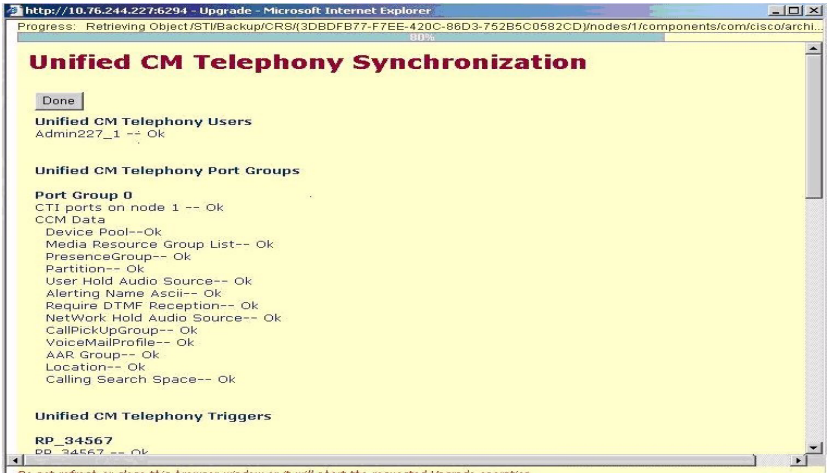
Step 6 Click the **Continue** button to proceed with the synchronization of Unified CM Telephony. This step is important to avoid any inconsistency in data.

Figure 7-8 Unified CM Telephony Synchronization Window



After the synchronization is complete, you will see the following window:

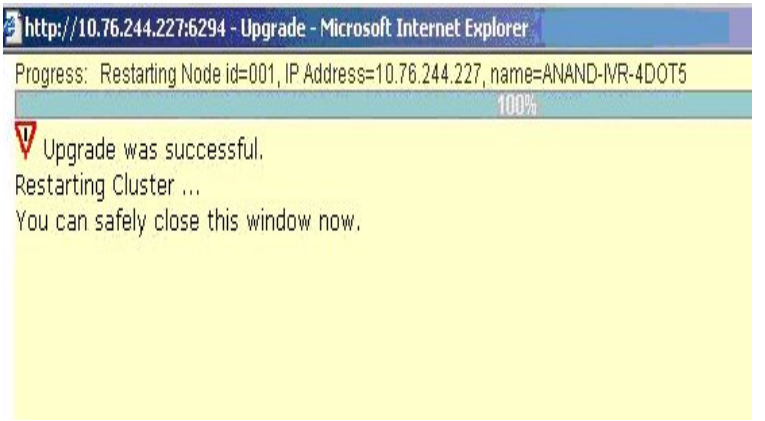
Figure 7-9 Unified CM Telephony Synchronization Complete Window



Step 7 Click **Done.**

Figure 5-10 displays a successful upgrade window.

Figure 7-10 Successful Upgrade Window



Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) high availability deployment

Perform the following steps to upgrade your CRS 4.5(x) SA deployment to Cisco Unified CCX 7.0(1) HA deployment.

Step 1 Perform all the steps mentioned in the section **Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) stand alone deployment**

Step 2 After a successful upgrade from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) standalone deployment, log-in to the UCCX Administration Setup.

Step 3 Upload the high availability license files.

Step 4 Select a machine for your second node, and install the **Cisco-provided Windows 2003 Server Operating System on the server.**

To install the Windows 2003 Server operating, patches, and hotfixes, refer the appropriate operating installation document at:

http://www.cisco.com/en/US/products/hw/voiceapp/ps378/prod_installation_guides_list.html

Additionally, install any applicable Microsoft patches and hotfixes.

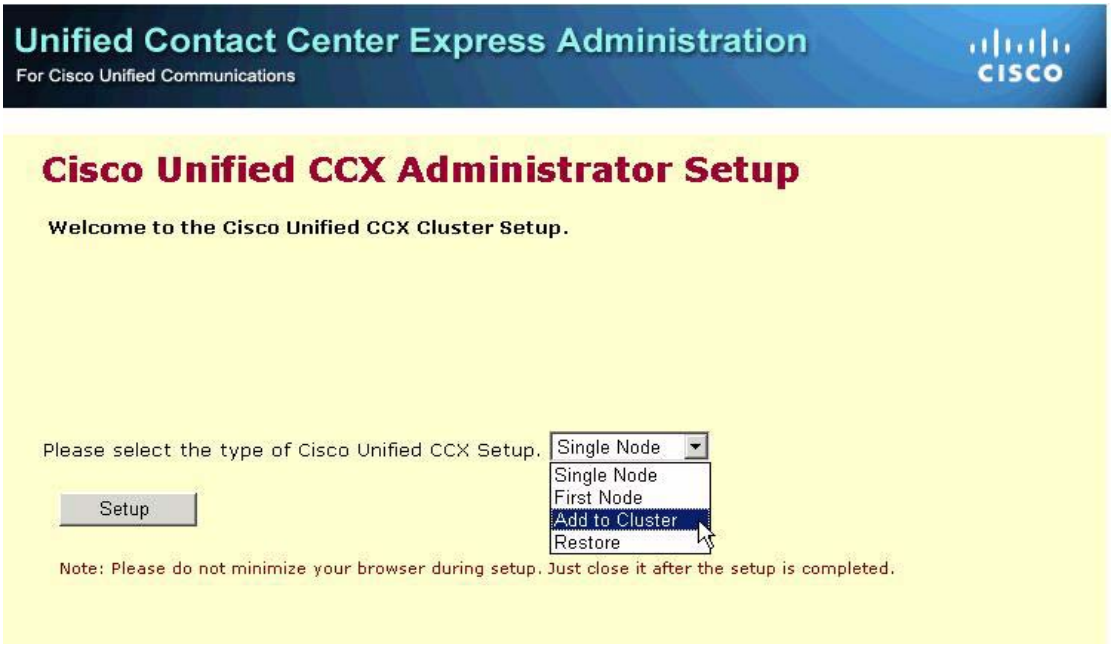
Step 5 Install UCCX 7.0(1). Refer **Chapter 4,** for instructions on how to install the UCCX software

Step 6 Install MS SQL Server 2000.

Step 7 To add a second node, access Cisco Unified CCX Administration page of the second node.

The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Figure 7-11 Cisco Unified CCX Administrator Setup Page



Step 8 Make sure that the CSA is disabled, and click **OK** in the pop-up window.

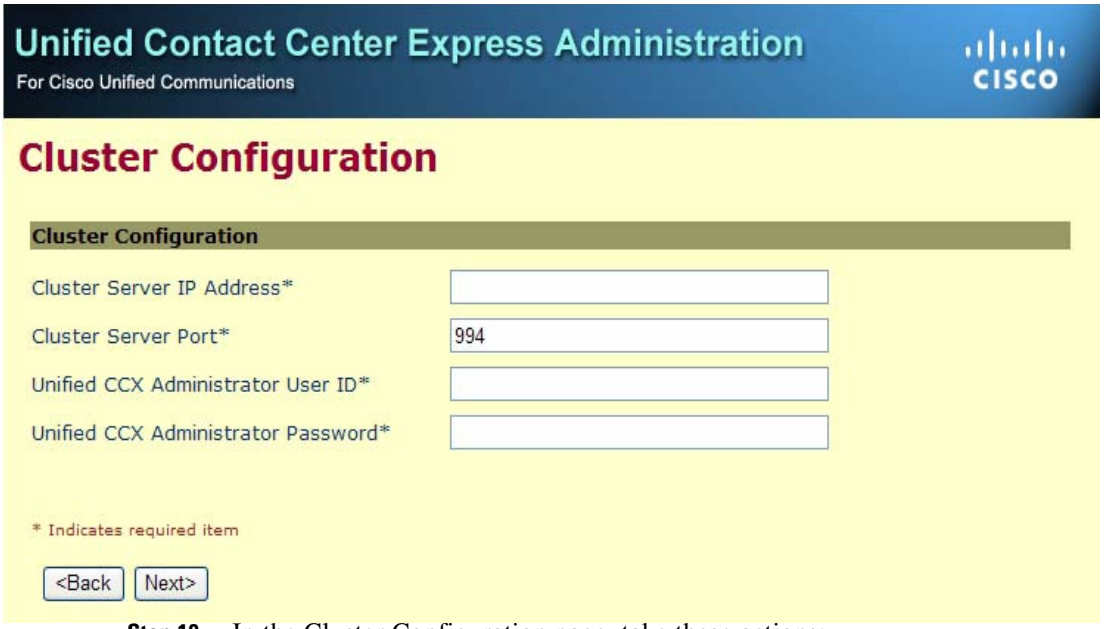
Step 9 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From Cisco Unified CCX Setup drop down list, choose **Add to Cluster**.

b. Click the **Setup** button.

The Cluster Configuration page displays.

Figure 7-12 Cluster Configuration Page



Step 10 In the Cluster Configuration page, take these actions:

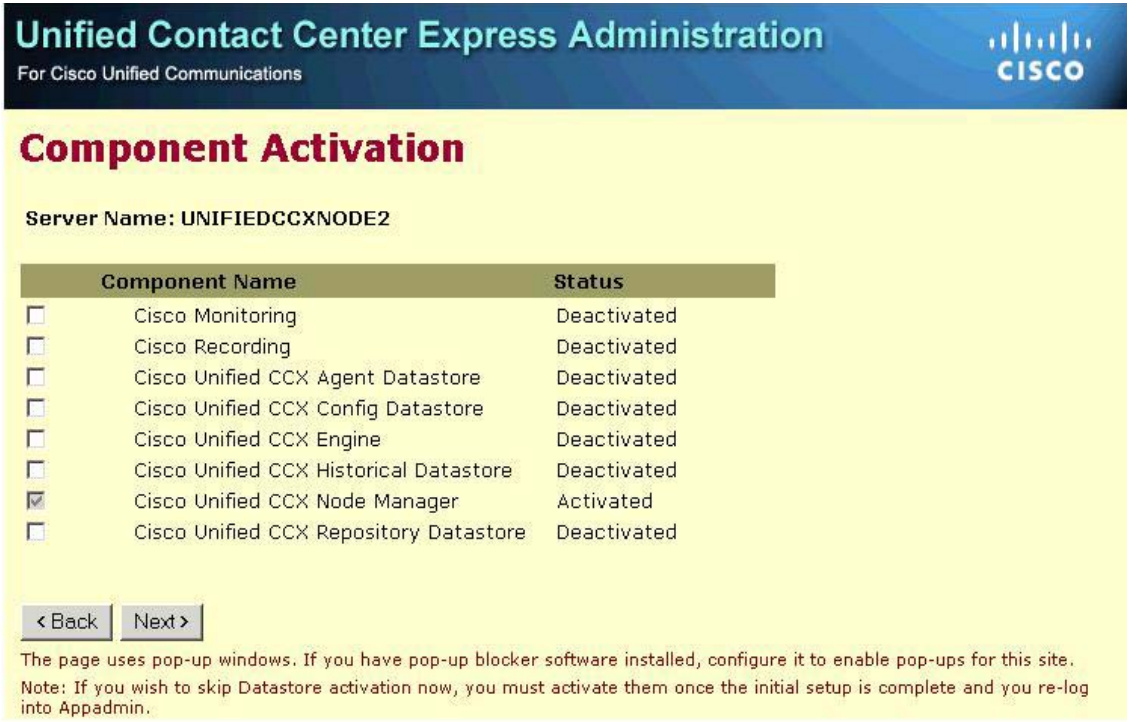
a. In the Cluster Server IP address, enter the IP address of the first node that you set up.

b. In the Cluster Server Port, accept the value that is entered automatically.

c. In the Cisco Unified CCX Administrator User ID field, and password filed enter the credentials that you entered for the first node.

d. Click **Next**. The Component Activation page displays.

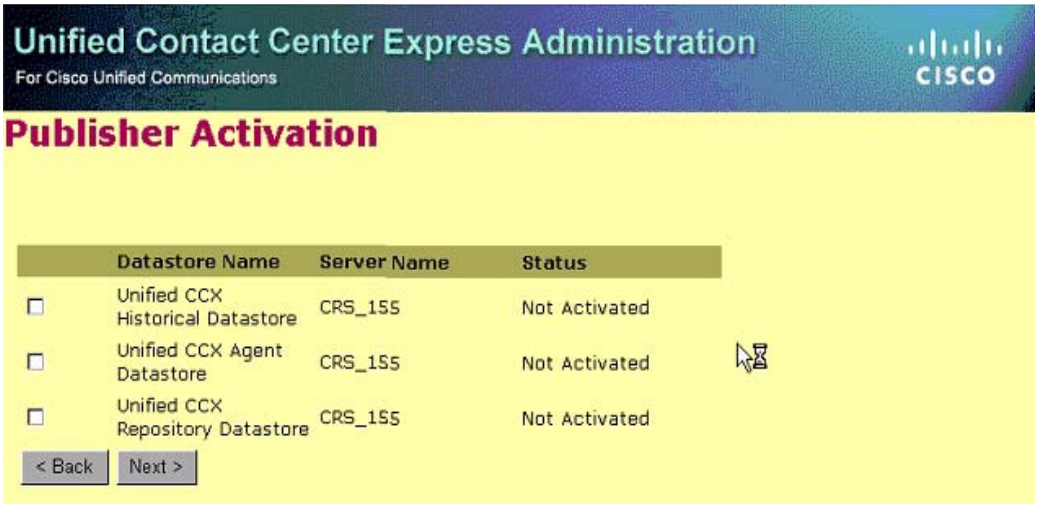
Figure 7-13 Component Activation Completed Page



Step 11 In the Component Activation page, check the check boxes next to the components that you want to activate on this server and click Next

Step 12 The Publisher Activation page displays.

Figure 7-14 Publisher Activation Page



Step 13 In the Publisher Activation page:

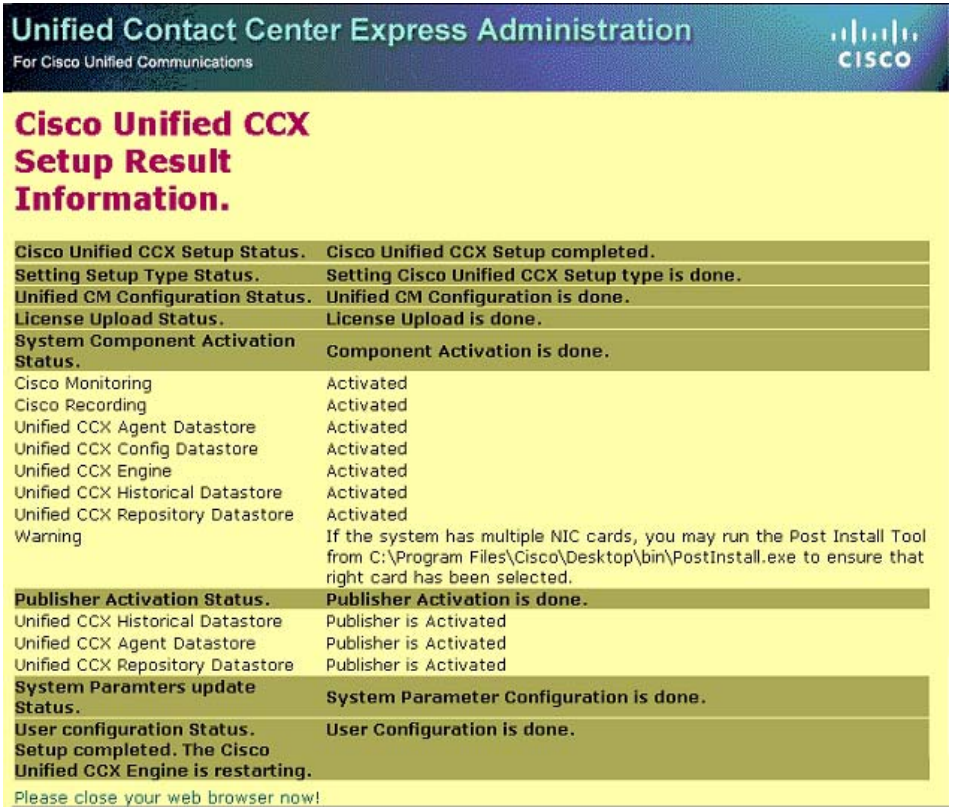
a. Select the check boxes for each datastore if you have not done so in the first node installation.

This server will be the database publisher.

b. Click **Next**.

The Cisco Unified CCX Setup Result Information page displays. This page confirms the results of the initial set up on the second node in a cluster.

Figure 7-15 Cisco Unified CCX Setup Results Information Page



Unified Contact Center Express Administration
For Cisco Unified Communications

Cisco Unified CCX Setup Result Information.

Cisco Unified CCX Setup Status.	**Cisco Unified CCX Setup completed.**
Setting Setup Type Status.	**Setting Cisco Unified CCX Setup type is done.**
Unified CM Configuration Status.	**Unified CM Configuration is done.**
License Upload Status.	**License Upload is done.**
System Component Activation Status.	**Component Activation is done.**
Cisco Monitoring	Activated
Cisco Recording	Activated
Unified CCX Agent Datastore	Activated
Unified CCX Config Datastore	Activated
Unified CCX Engine	Activated
Unified CCX Historical Datastore	Activated
Unified CCX Repository Datastore	Activated
Warning	If the system has multiple NIC cards, you may run the Post Install Tool from C:\Program Files\Cisco\Desktop\bin\PostInstall.exe to ensure that right card has been selected.
Publisher Activation Status.	**Publisher Activation is done.**
Unified CCX Historical Datastore	Publisher is Activated
Unified CCX Agent Datastore	Publisher is Activated
Unified CCX Repository Datastore	Publisher is Activated
System Paramters update Status.	**System Parameter Configuration is done.**
User configuration Status. Setup completed. The Cisco Unified CCX Engine is restarting.	**User Configuration is done.**

Please close your web browser now!

Step 14 Close your web browser.

Installing MS SQL 2000 Server

When upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1), if the upgrade requires reinstallation of MS SQL 2000 server, or if you are moving from MSDE to MS SQL 2000 server, you can use the MS SQL 2000 server upgrade utility.

The utility is available for download at:

http://software.cisco.com/download/type.html?mdfid=282126412&catid=null

If you are unable to open the link, copy and paste the URL in your web browser.

CHAPTER 8

Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1)

This chapter describes how to upgrade from CRS 5.0(x) to Cisco Unified CCX 7.0(1).

This chapter includes the following sections:

- Before You Begin, page 8-1
- Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1), page 8-2
- Upgrading a HA Deployment from 5.0(x) to 7.0(1), page 8-6
- Preview Outbound Configuration in Cisco Unified CCX 7.0(1), page 8-13

Refer Chapter 7, for instructions on Upgrading to Cisco Unified CCX 7.0(1) for Cisco Unified CSS Users.

Before You Begin

Perform the following steps before upgrading CRS 5.0(x) to 7.0(1):

1. Disable virus scanning and the CSA on the server on which you are upgrading.
2. Ensure that the CRS 5.0(x) server on which you are going to upgrade is fully operational, that is, all the Cisco Unified CCX services are running on the server.

3. Backup the original ClusterData folder. To do this, copy the ClusterData folder from the C:\Program Files\wfavvid\ folder and save it on a separate machine.

Note

- Download the License Validator tool from : http://software.cisco.com/download/release.html?mdfid=282126412&softwareid=282360307&release=7.0%281%29&relind=AVAILABLE&rellifecycle=&reltype=latest to the local disk on your Cisco Unified CCX server. The executable file (.exe) that gets downloaded is the **CUCCX_7.0.1_ License_Validator.exe.**

  If you are unable to open the link, copy and paste the URL in your web browser.

4. Run the 7.0(1) License Validator to verify that you have the correct upgrade license file. For information about the **License Validator tool, refer Chapter 5.**
5. Take a data backup of the CRS 5.0(x) server data using the Backup and Restore feature.

Upgrading CRS 5.0(x) to Cisco Unified CCX 7.0(1)

Perform the following steps to upgrade CRS 5.0(x) to Cisco Unified CCX 7.0(1):

Step 1 Log into the Windows operating system as the Administrator.

Step 2 Insert the Cisco Unified CCX DVD.

If the Cisco Unified Contact Center Express Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CiscoUnifiedCCXAutorun.exe**.

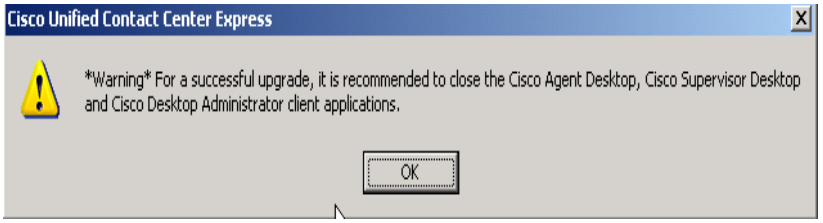
Step 3 Click **OK** in the pop-up window that prompts:

```
The Cisco Unified CCX Installer is about to start. Click OK to
continue.
```

The Cisco Unified CCX Installer performs a series of checks and processes. Then, the Welcome window displays.

Additionally, you will see the following pop-up warning message:

Figure 8-1 Upgrade Warning



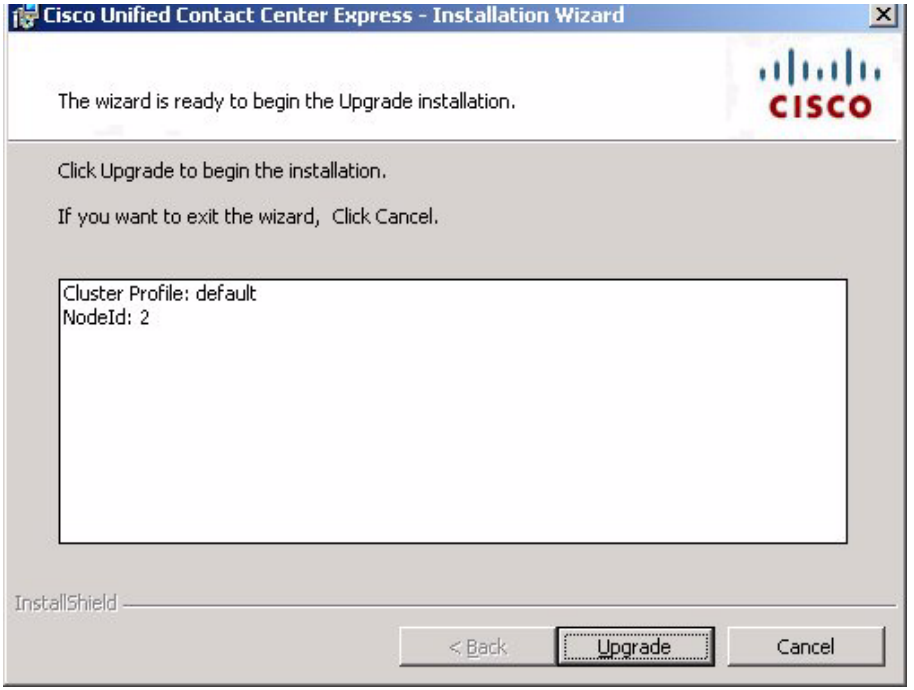
Make sure that all CAD/CSD and client applications are closed and click OK in the pop-up window.

Figure 8-2 Welcome Window

Step 4 In the Welcome window, Click **Next**.

The Upgrade window appears.

Figure 8-3 Upgrade Window



Step 5 In the Upgrade window, click **Upgrade**.

Step 6 In the Installation Wizard Completed window, click **Finish**.

Figure 8-4 Installation Wizard Completed Window

The system prompts you to reboot the system.

Figure 8-5 Restart Window

Step 7 After the server reboot, you should upload a valid license file. The following pop-up message will be displayed.

Figure 8-6 License Upload Pop-Up Message

Step 8 Click OK. You will be navigated to the Cisco Unified CCX Administration application. Open the License Upload page and upload the valid license.

Note If you are upgrading a standalone setup of CRS 5.0(x) to UCCX 7.0(0) you are navigated directly to the Preview Outbound Configuration page. See the section on **Preview Outbound Configuration in Cisco Unified CCX 7.0(1),** in this Chapter.

Step 9 Upload the valid licenses.

Step 10 Start the Cisco Unified CCX Administration application and verify that the application operates properly.

Upgrading a HA Deployment from 5.0(x) to 7.0(1)

Perform the following steps before upgrading HA node from 5.0(x) to 7.0(1):

1. Disable virus scanning and the CSA on the server on which you are upgrading.
2. Ensure that the CRS 5.0(x) server on which you are going to upgrade is fully operational, that is, all the Cisco Unified CCX services are running on the server.

3. Always upgrade the publisher node first.

Note Cisco Unified CCX does not support more than two nodes in an HA setup.

Note If you run the installer on the subscriber node first, the following message displays:

```
In order to avoid any service interruption, please exit the
installation and upgrade/downgrade <hostname> first where the
database publisher resides. If you choose to continue
upgrading the DB subscriber first, there will be some
interruption of the service during the upgrade/downgrade
period. Do you want to continue?
```

Click "No" to abort the installation and start the upgrade in the publisher node.

Step 1 Log into Windows operating system of the publisher node as the Administrator.

Step 2 Insert the Cisco Unified CCX 7.0(1) DVD in the publisher node.

If the Cisco Unified CCX Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CiscoUnifiedCCXAutorun.exe**.

Step 3 Click **OK** in the pop-up window that prompts:

```
The Cisco Unified CCX Installer is about to start. Click OK to
continue.
```

The Cisco Unified CCX Installer performs a series of checks and processes. Then, the Welcome window displays, as shown in Figure 6-5.

In addition, a pop-up window displays the following message:

```
*Warning* Disable Cisco Security Agent and virus control
software before proceeding. These applications can interfere
with the Cisco Unified CCX Installer procedure that you are
performing and can cause the system to become unrecoverable.
```

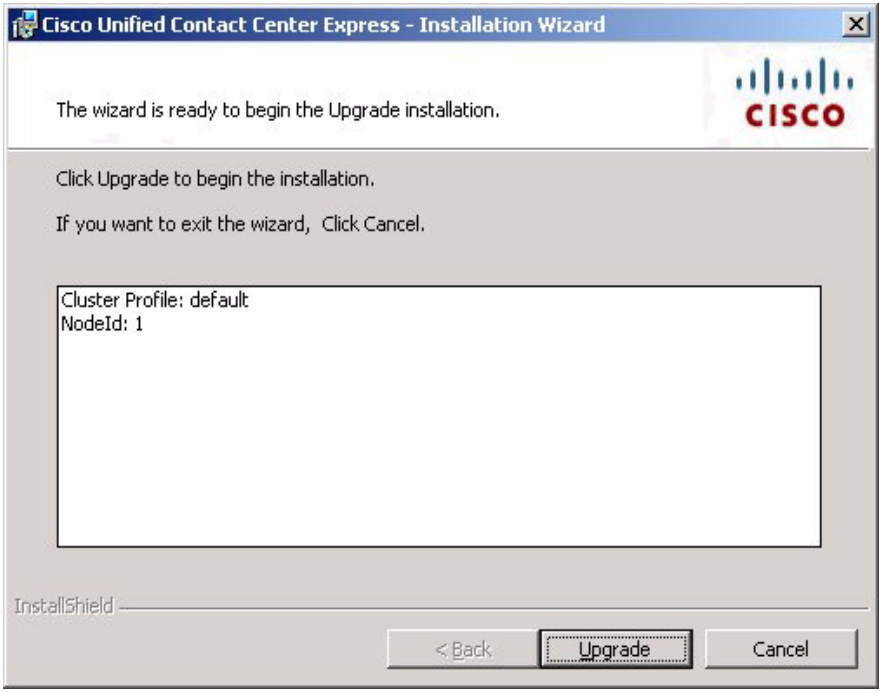
Figure 8-7 Welcome Window

Note Ensure that all virus control software and CSA are disabled and click **OK** in the pop-up window.

Step 4 In Welcome window, Click **Next**.

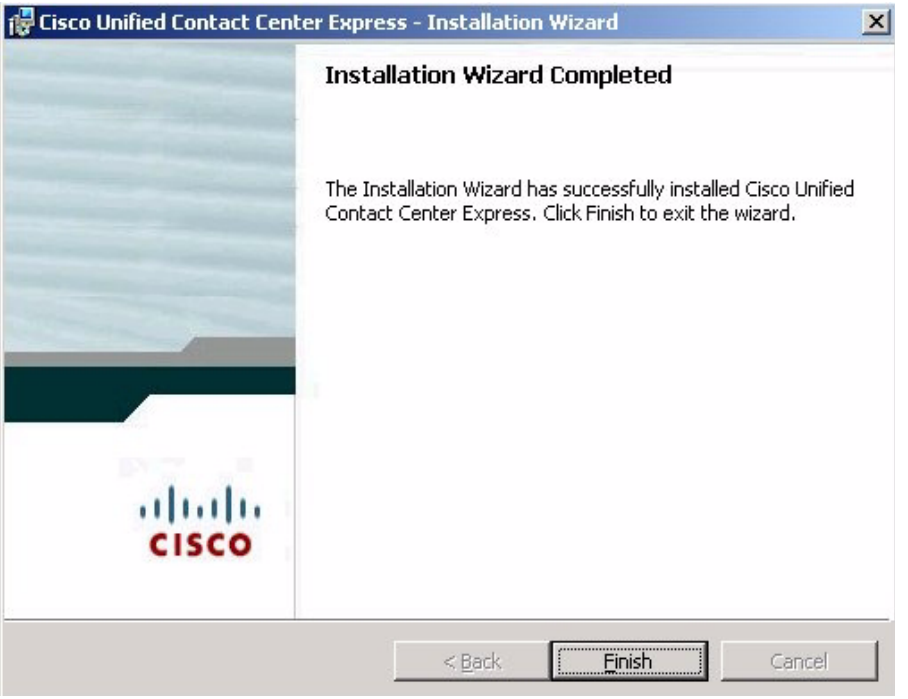
Step 5 The Upgrade windows appears.

Figure 8-8 Upgrade Window



Step 6 In the Upgrade window, click **Upgrade**.

Figure 8-9 Installation Wizard Completed Window



Step 7 In the Installation Wizard Completed window, click **Finish**.

Figure 8-10 Restart Window

You are prompted to reboot the system

Step 8 Reboot the system and log into the Windows operating system as the Administrator before starting the second node upgrade.

Upload the Cisco Unified CCX 7.0(1) license files that you validated through the License validator tool.

For information about the License Validator tool, **refer Chapter 5**.

Once the validated Cisco unified CCX 7.0(1) licenses are successfully uploaded, restart the Cisco Unified CCX Engine and ensure that all the services in Cisco Unified CCX Server Control Center are running.

Step 9 Log into the Windows operating system as the Administrator in the subscriber node.

Step 10 Insert the Cisco Unified CCX 7.0(1) DVD in the subscriber node.

If the Cisco Unified CCX Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CiscoUnifiedCCXAutorun.exe**.

Step 11 Click **OK** in the pop-up window that prompts:

```
The Cisco Unified CCX Installer is about to start. Click OK to
continue.
```

The Cisco Unified CCX Installer performs a series of checks and processes. Then, the Welcome window displays, as shown in Figure 6-6.

In addition, a pop-up window displays the following message:

```
*Warning* Disable Cisco Security Agent and virus control
software before proceeding. These applications can interfere
with the Cisco Unified CCX Installer procedure that you are
performing and can cause the system to become unrecoverable.
```

Ensure that all virus control software and CSA are disabled and click OK in the pop-up window.

Step 12 In Welcome window, Click **Next**.

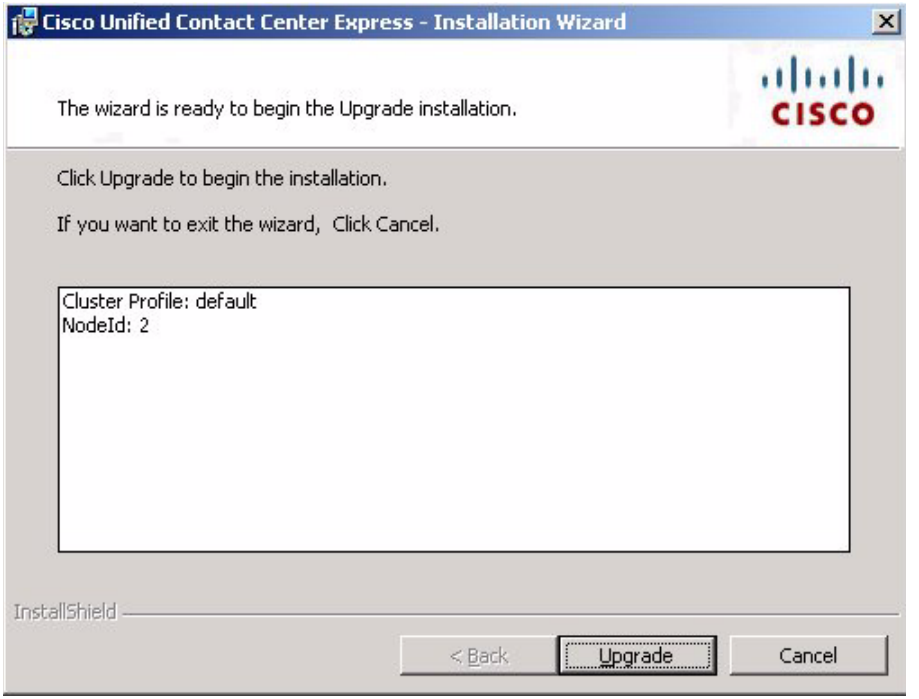
Step 13 You get the following message:

```
Upgrade/downgrade is completed in DB publisher; continue the
upgrade/downgrade in subscriber DB node. Click OK to continue.
```

Click **OK**.

Step 14 The Upgrade windows appears.

Figure 8-11 Upgrade Window



Step 15 In the Upgrade window, click **Upgrade**.

Step 16 In the Installation Wizard Completed window, click **Finish**.

You are prompted to reboot the system.

Step 17 After the server reboots, start the Cisco Unified CCX Administration application and verify that the application operates properly.

Installing MS SQL 2000 Server

When you upgrade from CRS 5.0(x) (HA) to UCCX 7.0(1), if you already have MS SQL installed, do not re-install MS SQL.

If you have not installed MS SQL before the upgrade from CRS 5.0(x) (HA) to UCCX 7.0(1), install MS SQL and perform the upgrade.

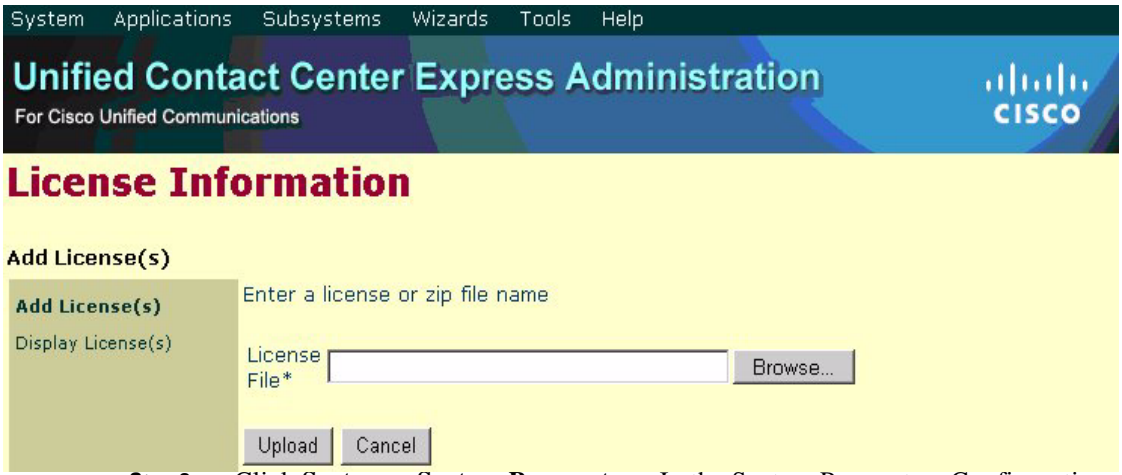
Preview Outbound Configuration in Cisco Unified CCX 7.0(1)

From Cisco Unified CCX 7.0(1), the Preview Outbound Dialer will be a Premium licensed feature, that is, you do not need to upload a separate Preview Outbound license through Cisco Unified CCX Administration to enable the outbound feature. From Cisco Unified CCX 7.0(1), there is no separate Preview Outbound license. The only prerequisite to enable the Preview Outbound option is to upload a valid Premium license.

You can configure the number of Preview Outbound seats in the System Parameters Configuration page in Cisco Unified CCX Administration. To do this, perform the following steps:

Step 1 In the **License Information** page in Cisco Unified CCX Administration, upload a Premium license (with seat count greater than 0).

Figure 8-12 License Information Page



Step 2 Click **System > System Parameters**, In the System Parameters Configuration page, specify the number of Preview Outbound seats.

Figure 8-13 System Parameters Configuration Page

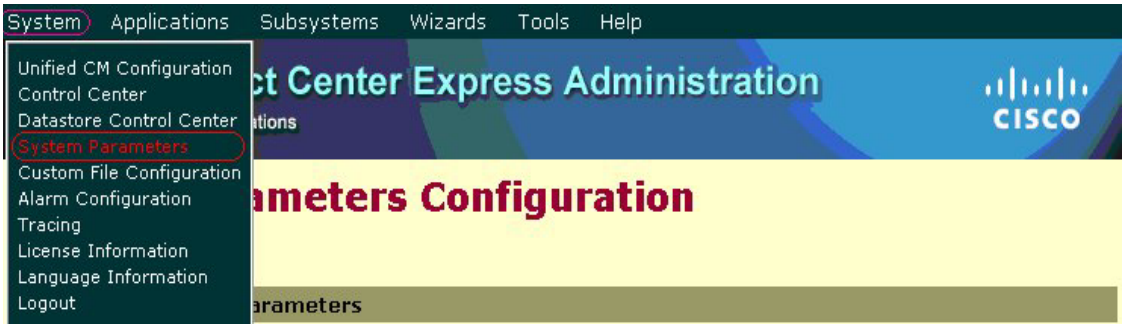


Figure 8-14 System Parameters Configuration Page

Application Parameters

Parameter Name	Parameter Value	Suggested Value
Supervisor Access	No Access to Teams	
Max Number of Executed Steps*	1000	1000
Additional Tasks*	0	0
Default Session Timeout*	30 minutes	30 minutes
Enterprise Call Info Parameter Separator*	|	|
Agent State after Ring No Answer*	Ready / Not Ready	Not Ready
Number of HR session licenses*	5 (Number of Seats : 100)	0
Number of Outbound seats*	2	

You need to do this configuration during the setup phase after the installation. While performing the setup through Cisco Unified CCX Administration, if you upload a Premium license, the “Number of Outbound seats” will appear as a mandatory field.

The Preview Outbound seat count will not be carried forward in case of an upgrade from CRS 5.0(x) to Cisco Unified CCX 7.0(1). By default, the Preview Outbound seat count will be initialized with the maximum supported value for the

given hardware type. You need to manually modify the seat count in the System Parameters Configuration page according to the usage. Refer Table 6-1 for the maximum Preview Outbound seat count.

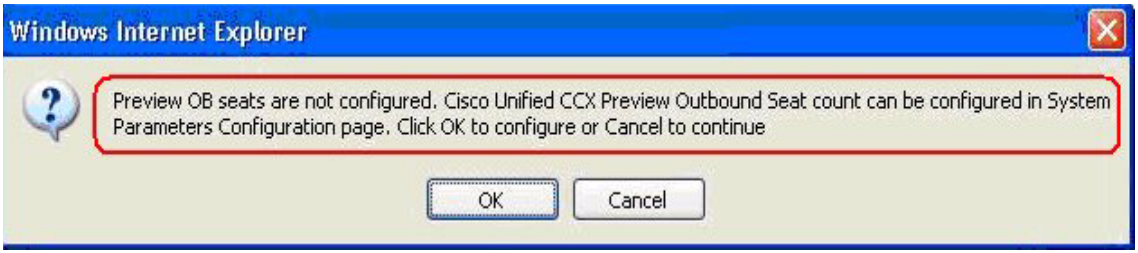
Table 8-1 Preview Outbound Seat Count Hardware Limit

Hardware Type	Maximum Preview Outbound Seat Count
Cisco MCS-7845	300
Cisco MCS-7835	75
Cisco MCS-7825	75
Cisco MCS-7816	50

Note You should specify the number of outbound seats on the System Parameter page as either the maximum seat count supported by the hardware or the number of seat licenses you have, whichever is smaller.

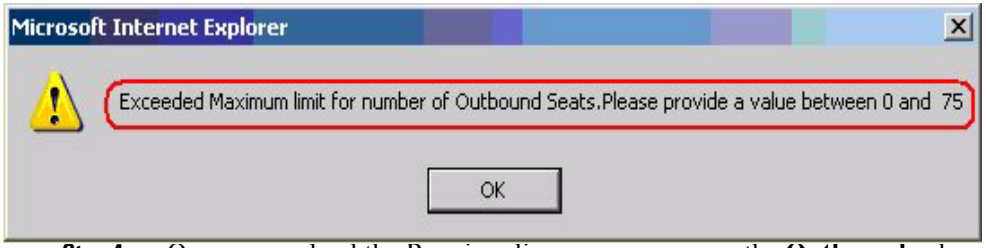
Step 3 If the number of Preview Outbound seats configured is zero (0), you will get the following message in the **Campaign List** page.

Figure 8-15 Warning Message



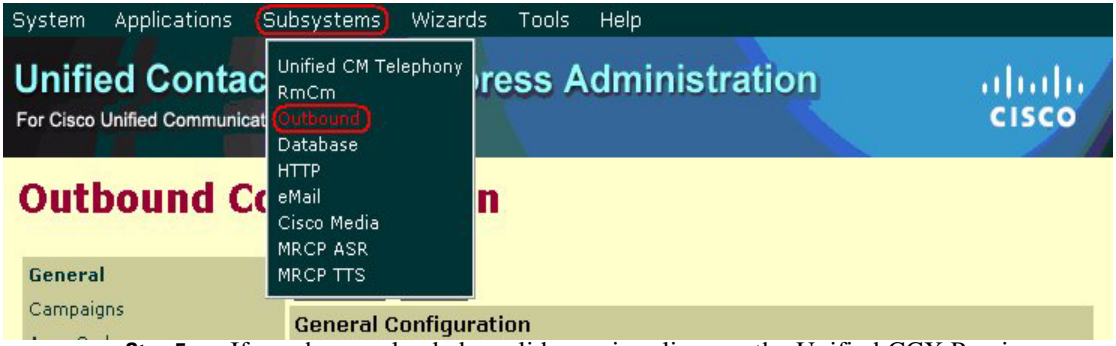
If the number of Preview Outbound seats configured exceeds the maximum limit, you will get the following message.

Figure 8-16 Error Message



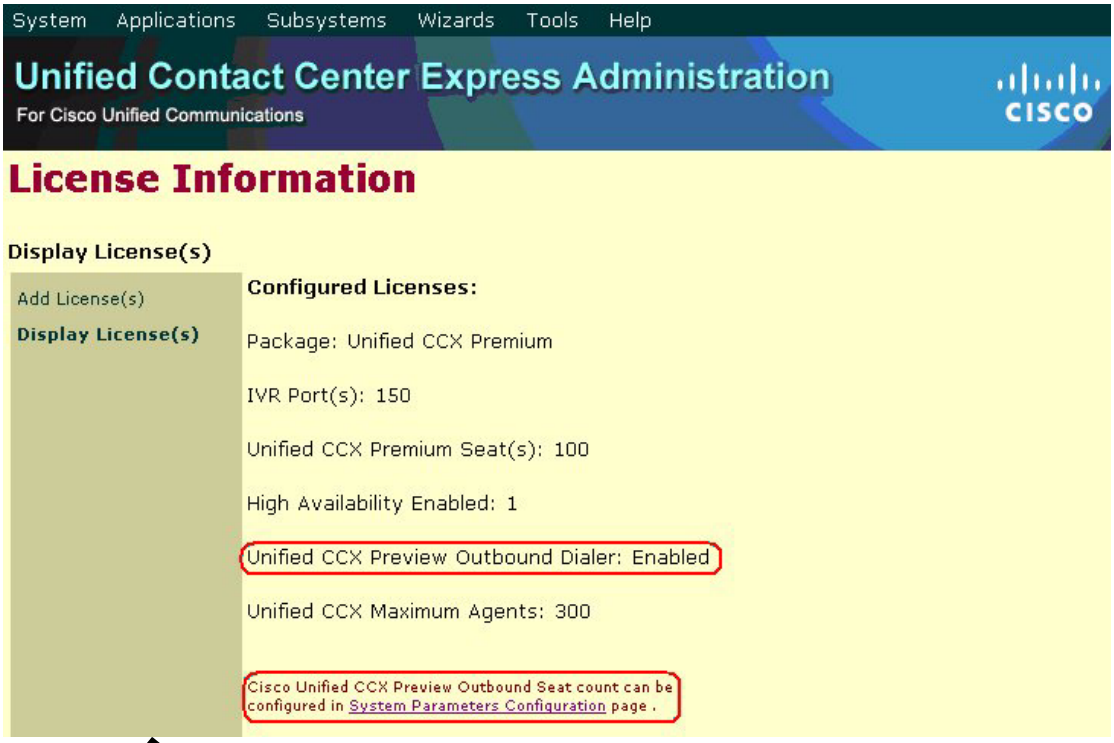
Step 4 Once you upload the Premium license, you can see the **Outbound** subsystem in the Cisco Unified CCX Administration Subsystems menu.

Figure 8-17 Outbound Subsystem



Step 5 If you have uploaded a valid premium license, the Unified CCX Preview Outbound Dialer option is displayed as “Enabled” in the **License Information** page. Additionally, a link to the System Parameters Configuration page is available to configure the Preview Outbound seat count.

Figure 8-18 License Information Page



Note In Cisco Unified CCX 7.0(1), there is no change in the way the Outbound subsystem works. The changes are applicable only to the Preview Outbound Seat Count configuration.

CHAPTER 9

Upgrading to Cisco Unified CCX 7.0(1) for Cisco Unified CSS Users

This chapter describes how to upgrade from CRS 4.5(x) or 5.0(x) to Cisco Unified CCX 7.0(1) for Cisco Unified Communications Software Subscription (Cisco Unified CSS) users.

Cisco Unified CSS License Upgrade

A Cisco Unified CSS license, which is currently known as Essential Operate Software and Cisco Unified Communications Software Subscription (Cisco Unified CSS), allows you to pre-purchase major software version upgrades.

If you are a Cisco Unified CSS user, and you are upgrading to a valid upgrade path, data migration is supported. If the upgrade path is not valid, you are only entitled to a software/seat upgrade, which does not involve the migration of historical and configuration data from the old version to the new version. The features that were licensed in the previous version will continue to work in the new version provided those features are not made obsolete in the new version.

For the Cisco Unified CSS upgrade to work, you must upload the Cisco Unified CSS upgrade license (a single license file that indicates the old version and the new version of the upgrade license), along with the existing licenses (for the old version).

Upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1)

This is a valid upgrade path. You need to take a backup of the current CRS 4.5(x) configuration using BARS and restore the data after re-imaging the server and installing Cisco Unified CCX 7.0(1). The backup and restore functionality is integrated with Cisco Unified CCX 7.0(1) and BARS is not needed.

Once you have installed Cisco Unified CCX 7.0(1), in the Cisco Unified CCX Administration Setup page, select the **Restore** option to restore your old configuration. You will be prompted to enter the path containing the new licenses. You need to enter the Cisco Unified CSS upgrade license at this stage.

Upgrading from CRS 5.0(x) to Cisco Unified CCX 7.0(1)

This is a valid upgrade path. After you upgrade to Cisco Unified CCX 7.0(1), you need to upload the Cisco Unified CSS license through the Cisco Unified CCX Administration page. The existing CRS 5.0(x) licenses will be present in the system but will not be activated until you upload valid Cisco Unified CCX 7.0 upgrade licenses (CRS 5.0(x) to Cisco Unified CCX 7.0(1) Unified CSS or normal upgrade license or Cisco Unified CCX 7.0(1) base licenses). The licensed features will be activated once you upload a valid 7.0(1) upgrade license.

In this case, all licensed features will be activated upon uploading a valid Cisco Unified CCX 7.0(1) Unified CSS upgrade license.

Upgrading from CRS 3.5 to Cisco Unified CCX 7.0(1)

This is not a valid upgrade path. The flexlm license format of CRS 3.5 is different from that of later releases (CRS 4.0 or later). This necessitates the conversion of CRS 3.5 licenses to make them compatible with the newer license format. This can be done using the License Conversion tool. This tool is version-specific, that is, the License Conversion tool for Cisco Unified CCX 7.0(1) will only convert CRS 3.5 license(s) to equivalent Unified CCX 7.0(1) licenses.

For further information on the License Conversion tool, refer the section **Using the License Conversion Tool** in this Chapter.

Upgrading from CRS 4.0/ 4.1/ 6.0 to Cisco Unified CCX 7.0(1)

This is not a valid upgrade path, that is, your data will not be migrated. Only the currently licensed features will be upgraded.

In this case, you need to upload your existing CRS 4.0/ 4.1/ 6.0 licenses and the CRS 4.0/4.1/6.0 to Cisco Unified CCX 7.0(1) Unified CSS Upgrade License through Cisco Unified CCX Administration in the initial setup configuration after the software upgrade.

You are recommended to add the CRS 4.0/4.1/6.0 licenses and Cisco Unified CCX 7.0(1) Unified CSS Upgrade License to a top-level zip file that does not contain any folders in it, and upload the zip file through the Cisco Unified CCX Administration.

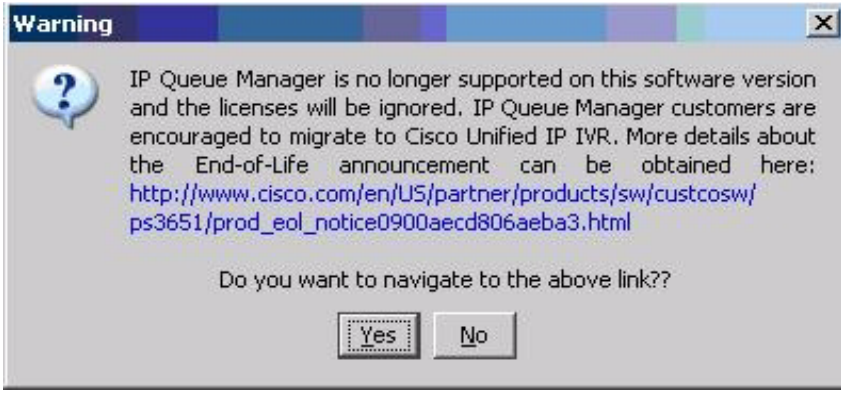
Using the License Conversion Tool

If you are a CRS 3.5 Software Application Support with Upgrades (SASU) user, you can use the Cisco Unified CCX 7.0(1) License Conversion tool to convert your existing CRS 3.5 license to its corresponding Cisco Unified CCX 7.0(1) license.

This tool is bundled as a separate CD and is available with the upgrade kit. The License Conversion tool is a standalone tool and can be run on any machine to generate the Cisco Unified CCX 7.0 license files.

Cisco Unified CCX 7.0(1) will no longer support Cisco Unified Queue Manager (Cisco Unified QM). If you are a CRS 3.x user and are upgrading to Cisco Unified CCX 7.0(1), you will not get the Cisco Unified QM functionality. So, when you use the License Conversion tool to convert your existing CRS 3.x licenses to Cisco Unified CCX 7.0(1), you can see the following error message:

Figure 9-1 IP Queue Manager License Warning Message



Note

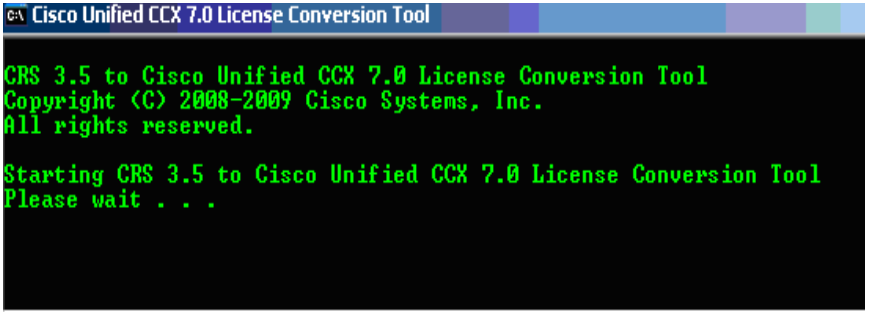
- The License Conversion tool is only intended for CRS 3.5 SASU users.
- In case of CRS 3.5 to CRS 4.0 upgrade, this tool should be run on the CRS 3.5 server.

Perform the following steps to convert your existing CRS 3.5 License file to Cisco Unified CCX 7.0(1) License files.

Step 1 Insert the Cisco Unified CCX 7.0 License Conversion tool CD in the CDROM Drive. If the License conversion tool does not launch automatically, navigate to the root folder on the CD and click **upgrade.bat** file.

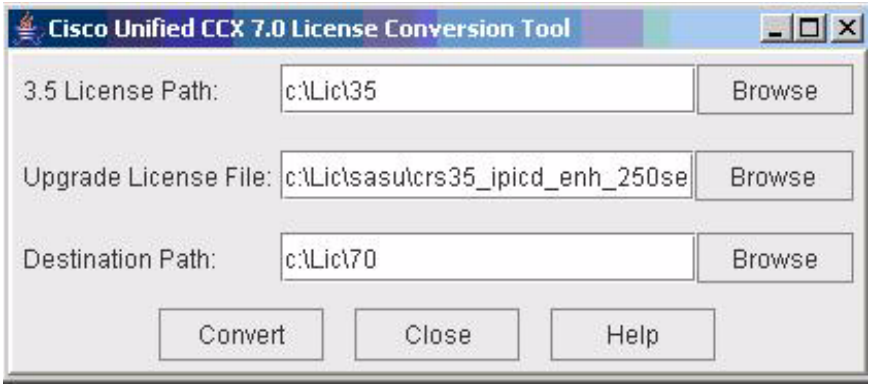
A message window is displayed.

Figure 9-2 Cisco Unified CCX 3.5 to 7.0 License Conversion Tool Message Window



Step 2 The 3.5 to 7.0 License Converter dialog box is displayed. In the 3.5 License Path field, navigate to the License folder path that contains the CRS 3.5 licenses.

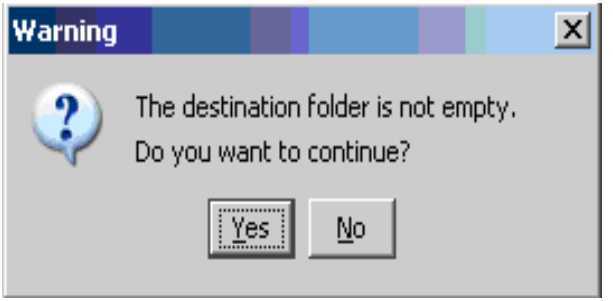
Figure 9-3 3.5 to 7.0 License Converter Tool



Step 3 In the Upgrade License File field, navigate to the 3.5 to 7.0 Cisco Unified CSS upgrade license file. You will get this license file as part of the upgrade kit.

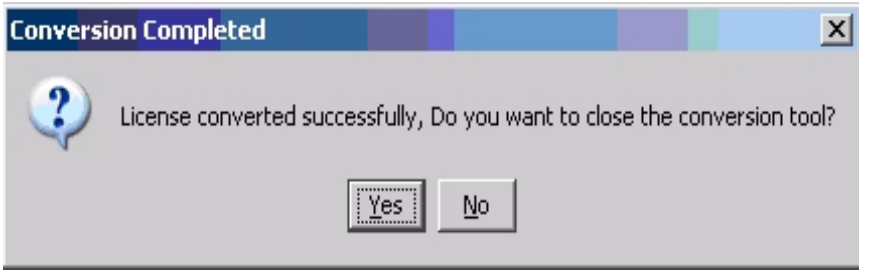
In the Destination Path field, specify the 7.0 license destination path where you want to generate the converted license files.

Figure 9-4 Destination Folder Empty Warning Message



Step 4 Click **Convert**.

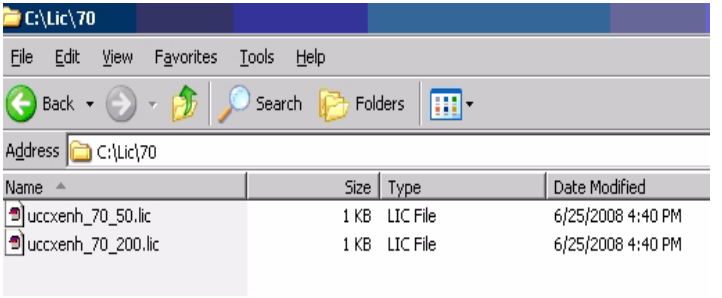
Figure 9-5 Successful Conversion Completed Dialog Box



Step 5 Navigate to the 7.0 license destination path that you specified in Step 3 to see the generated Cisco Unified CCX 7.0 licenses.

Step 6 The License Conversion tool logs will be generated in the **C:\UpgradeLicense.log** file.

Figure 9-6 Successful Conversion Completed Dialog Box



CHAPTER 10

Upgrading CRS 5.0(x) to Cisco Unified CME 7.0(1)

Performing an upgrade from CRS 5.0(x) to Cisco Unified CCX 7.0(1) with a CME deployment is equivalent to the initial setup for a Deployment with Cisco Unified CME. Therefore, perform the procedure listed in **Chapter 9**, in the section titled **Performing the Initial Setup for a Deployment with Cisco Unified CME.**

To know the product and version compatibility, read the CRS Compatibility Matrix at:
http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html

CHAPTER 11

Performing the Initial Setup of Cisco Unified CCX

After you install Cisco Unified CCX as described in Chapter 4, use the Cisco Unified CCX Administration application to perform the initial system setup.

Cisco Unified CCX Administration is a web-based application that allows you to control, configure, and monitor many functions of your Cisco Unified CCX system. The set up procedure that you perform depends on:

- Your deployment of Cisco Unified CCX with Cisco Unified Communications Manager (Cisco Unified CM)
- Your deployment of Cisco Unified CCX with Cisco Unified Communications Manager Express (Cisco Unified CME)
- The number of servers in your deployment.

If you later need to update information that you specify during the setup procedure, you can use Cisco Unified CCX Administration to make changes. For more information, refer the *Cisco Unified Contact Center Express Administration Guide*.

The following table describes the sections in this chapter. Use this table to determine which setup procedure to perform.

Section	Description
Accessing Cisco Unified CCX Administration, page 11-3	Explains how access the Cisco Unified CCX Administration Application. See this section if you do not want to run the initial set up procedure when the Cisco Unified CCX Administration Application starts automatically or it you want to run the initial set up procedure from another computer.
Performing the Single Node Setup for a Deployment with Cisco Unified CM, page 11-5	Perform this procedure if you are deploying Cisco Unified CCX with Cisco Unified CM in a deployment with one node.
Performing First Node Setup for a Deployment with Cisco Unified CM, page 11-16	Perform this procedure on the first node in a cluster if you are deploying Cisco Unified CCX with Cisco Unified CM in a deployment with two nodes.
Performing the Add to Cluster Setup for a Deployment with Cisco Unified CM, page 11-29	Perform this procedure on the second node in a cluster if you are deploying Cisco Unified CCX with Cisco Unified CM in a deployment with two nodes.
Performing the Restore Setup, page 11-36	Perform this procedure in either of these cases: • You are upgrading from CRS 5.0(x). • You have reinstalled Cisco Unified CCX 7.0(1) after backing up your Cisco Unified CCX data and re-imaging the server.
Performing the Initial Setup for a Deployment with Cisco Unified CME, page 11-45	Perform this procedure if you are deploying Cisco Unified CCX with Cisco Unified CME.

Accessing Cisco Unified CCX Administration

You must access the Cisco Unified CCX Administration web interface through its Authentication page to perform the initial setup procedure.

After you complete the installation of Cisco Unified CCX 7.0(1), when the server reboots, the Cisco Unified CCX Administration Authentication page displays on the server. You can then take either of these actions to access Cisco Unified CCX Administration:

- Log in to Cisco Unified CCX Administration from the Authentication page

Before you start Cisco Unified CCX Administration, ensure that the Internet Explorer pop-up block is turned off. To do so, from Internet Explorer, choose **Tools > Pop-Up Blocker > Turn Off Pop-Up Blocker**.

To log into Cisco Unified CCX Administration, perform the following steps. If you want to bookmark the Authentication page, complete the following procedure before you do so.

Step 1 If you exited the Authentication page when it appeared after you installed Cisco Unified CCX and the server rebooted, take one of these actions:

- On the Cisco Unified CCX server, choose **Start > Programs > Cisco Unified CCX Administrator > Application Administration**.
- From any computer in the network that meets the requirements described in the Client System Requirements section of Chapter 3, enter the following URL in a web browser, where *servername* is the host name or the IP address of the server on which you installed Cisco Unified CCX:

  http://*servername*/AppAdmin

  If you access a server on which you will perform the server setup procedure, enter the IP address or the host name of that server.

The Authentication page displays.

Note If you see a page that says Page cannot be displayed, the Cisco Node Manager might not yet be fully operational. In this case, wait for a few minutes and then try again.

Step 2 In the Authentication page, enter **Administrator** in the User Identification field, and enter **ciscocisco** in the Password field.

This user identification and password are case-sensitive, so ensure that you enter them exactly as shown.

Step 3 Click **Log On**.

The Cisco Unified CCX Administrator Setup page for the initial setup procedure displays and a a pop-up window prompts you to disable the CSA.

Step 4 Make sure that the CSA is disabled and click OK in the pop-up window.

For more information, refer chapter 3.

To continue with the initial setup of Cisco Unified CCX, see the appropriate section for your deployment:

- Performing the Single Node Setup for a Stand Alone Deployment with Unified CM
- Performing First Node Setup for a High Availability Deployment with Unified CM
- Performing the Add to Cluster Setup for a Deployment with Cisco Unified CM
- Performing the Restore Setup
- Performing the Initial Setup for a Deployment with Cisco Unified CME

Performing the Single Node Setup for a Deployment with Cisco Unified CM

When you access Cisco Unified CCX Administration for the first time, the system automatically initiates the initial setup procedure.

If you are deploying Cisco Unified CCX with Cisco Unified CM in a deployment with one node, perform the setup procedure that is described in this section. You perform this procedure one time to provide information about Cisco Unified CM, license files, and other system parameters.

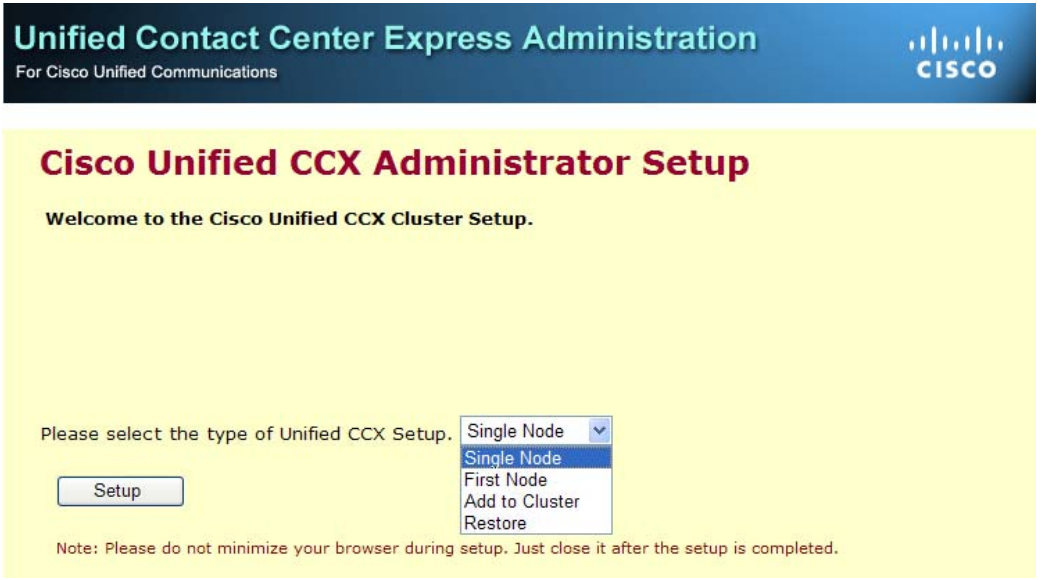
Note Before you begin the setup procedure, review the information in the Obtaining License Files section of Chapter 3.

After you complete the Single Node setup procedure, refer the section Performing the Restore Setup Procedure in this chapter to restore the backed-up Cisco Unified CCX data.

To perform the initial setup, follow these steps:

Step 1 Access Cisco Unified CCX Administration. The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Figure 11-1 Cisco Unified CCX Administrator Setup Page



Note Make sure that the CSA is disabled, and click **OK** in the pop-up window.

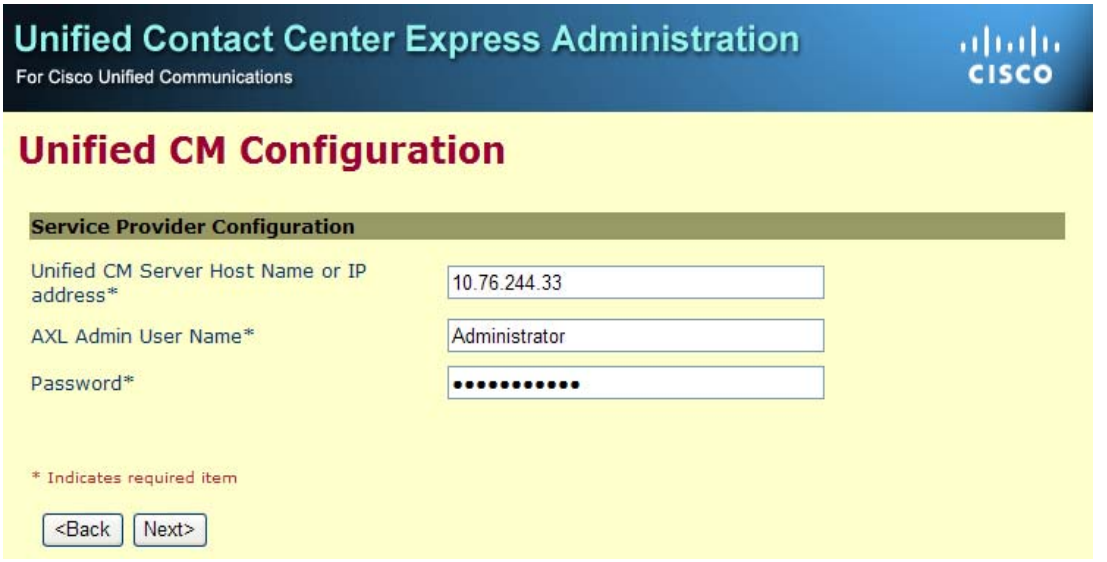
Step 2 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From Cisco Unified CCX Setup drop down list, choose **Single Node**.

b. Click the **Setup** button.

The Cisco Unified CM Configuration page displays.

Figure 11-2 Cisco Unified CM Configuration Page



Step 3 In the Cisco Unified CM Configuration page, take these actions:

a. In the Cisco Unified CM server hostname or IP address, enter the host name or IP address of the Cisco Unified CM server.

b. In the AXL Admin User Name field, enter the AXL user ID that you created in Cisco Unified CM.

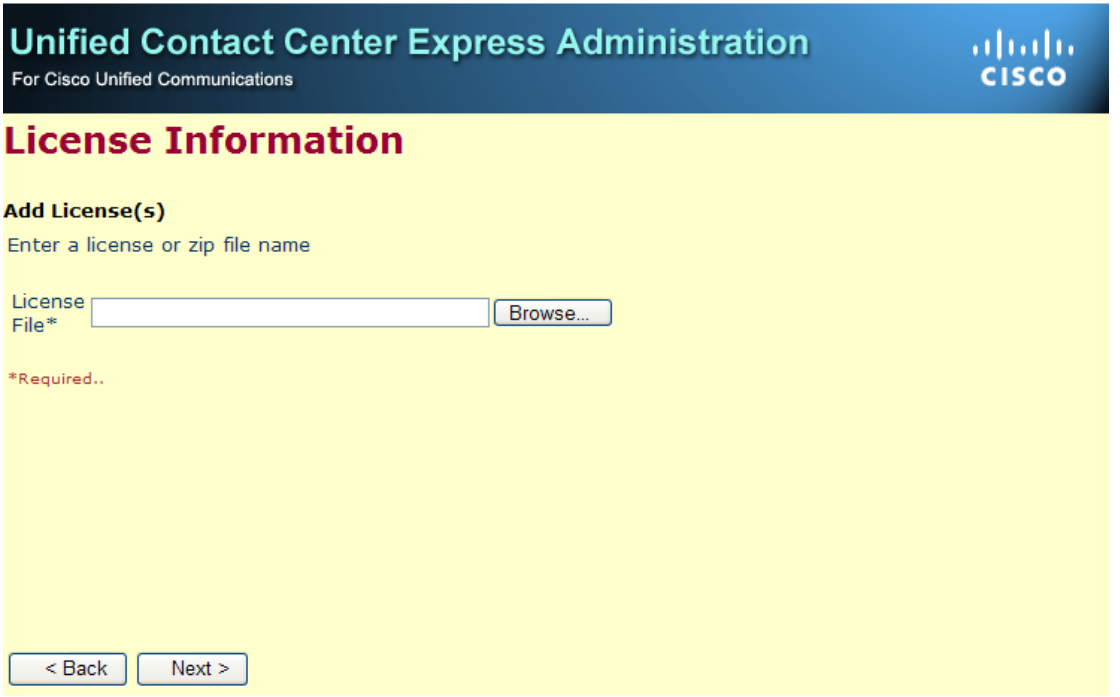
c. In the Password field, enter the AXL password that you created in Cisco Unified CM.

d. Click **Next**.

The License Information page displays.

For instructions on how to create new Cisco Unified CM users, refer the section titled **" Creating New Cisco Unified CM Users" Chapter 9.**

Figure 11-3 License Information Page



Step 4 In the License Information page:

a. In the License File field, enter the path and name of a Cisco Unified CCX license file, or of a ZIP file that contains multiple license files.

b. Click **Next**.

The License Information page displays again.

c. Take one of these actions:

– If you wish to enter multiple license files that you have not put into a single ZIP file, enter the path and name of another license file in the License File field and then click **Next**.

The license information page displays again. Repeat this process until you have entered all license files.

- If you have entered the name of a ZIP file that contains multiple license files or have entered all your license files, leave the License File field blank and click **Next**.

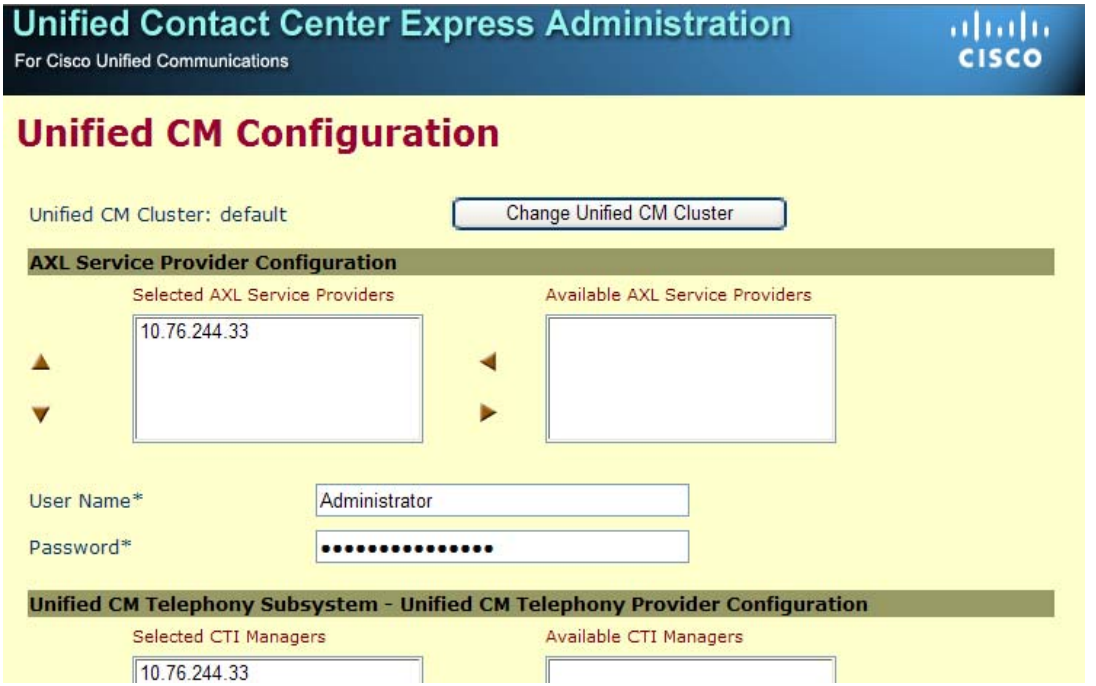
The System Component Activation Completed page displays.

Figure 11-4 System Component Activation Completed Page

Step 5 In the System Component Activation Completed page, click **Next**.

The Cisco Unified CM Configuration page displays as shown in figure 8-5 (Fig 8-5 shows part of this page).

Figure 11-5 Cisco Unified CM Configuration Page, Partial View



Step 6 In the Cisco Unified CM Configuration page:

a. In the AXL Service Provider Configuration area, move the IP address of the Cisco Unified CM server or servers that you want to use as the AXL service provider from the Available AXL Service Providers list box to the Selected AXL Service Providers list box.

The Selected AXL Service Providers list box is pre-populated with the IP address of the server that you specified in Step 3.

To move an item from one list box to the other, select the item and then click the left arrow (<) or right arrow (>).

b. In the User Name field in the AXL Service Provider Configuration area, enter a user name for the AXL service provider, if you want to change the name that displays.

This field is pre-populated with the user name that you specified in Step 4.

The AXL Admin user name need not be the CCM Administrator username. In case you specify a user name other than the CCM Administrator username, add the user name of the AXL Administrator to the Standard Unified CCX Administrators group and "Standard AXL API Access" roles in Unified CCX Communications Manager

c. In the Password field in the AXL Service Provider Configuration area, enter a password for the AXL service provide, if you want to change the name that appear.

This field is pre-populated with the password that you specified in Step 4.

d. In the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, move the IP address of the Cisco Unified CM server that you want to use as the CTI provider for the Cisco Unified CM Telephony subsystem from the Available CTI Managers list box to the Selected CTI Managers list box.

To move an item from one list box to the other, select the item and then click left arrow (<) or right arrow (>).

e. In User Prefix field in the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter an application user name for the Cisco Unified CM Telephony subsystem.

f. In the Password and Confirm Password fields in the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter a password for the Cisco Unified CM Telephony subsystem application user.

g. In the RmCm Subsystem - RmCm Provider Configuration area, move the IP address of the Cisco Unified CM server that you want to use as the CTI provider for the RmCm subsystem from the Available CTI Managers list box to the Selected CTI Managers list box.

To move an item from one list box to the other, select the item and then click left arrow (<) or right arrow (>).

Note Depending on your Cisco Unified CCX license, the RmCm Subsystem - RmCm Provider Configuration area may not be available on your system.

h. In User ID field in the RmCm Subsystem - RmCm Provider Configuration area, enter an application user name for the RmCm subsystem.

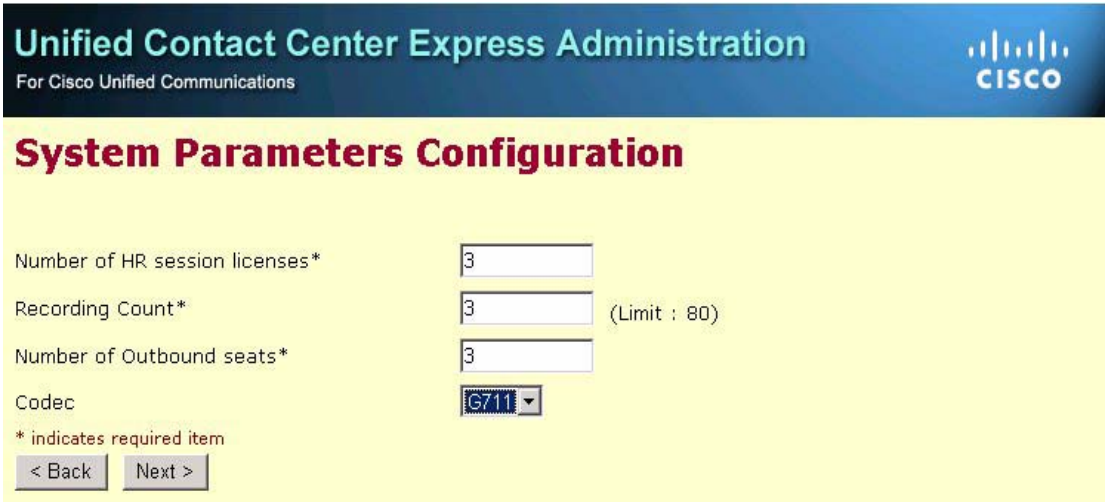
i. In the Password and Confirm Password fields in the Cisco Unified Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter a password for the RmCm subsystem application user.

j. In the Host Name or IP Address field in the NTP area, enter the host name or the IP address of the NTP server.

k. Click **Next**.

The System Parameters Configuration page displays.

Figure 11-6 System Parameters Configuration Page



Step 7 In the Systems Parameters Configuration page, take these actions:

a. In the Number of HR Session Licenses field, enter the maximum number of Cisco Unified CCX Historical Reporting sessions that you will run simultaneously.

b. In the Recording Count field, enter the maximum number of simultaneous recordings that you will make.

This field displays only if you have a Cisco Unified CCX license.

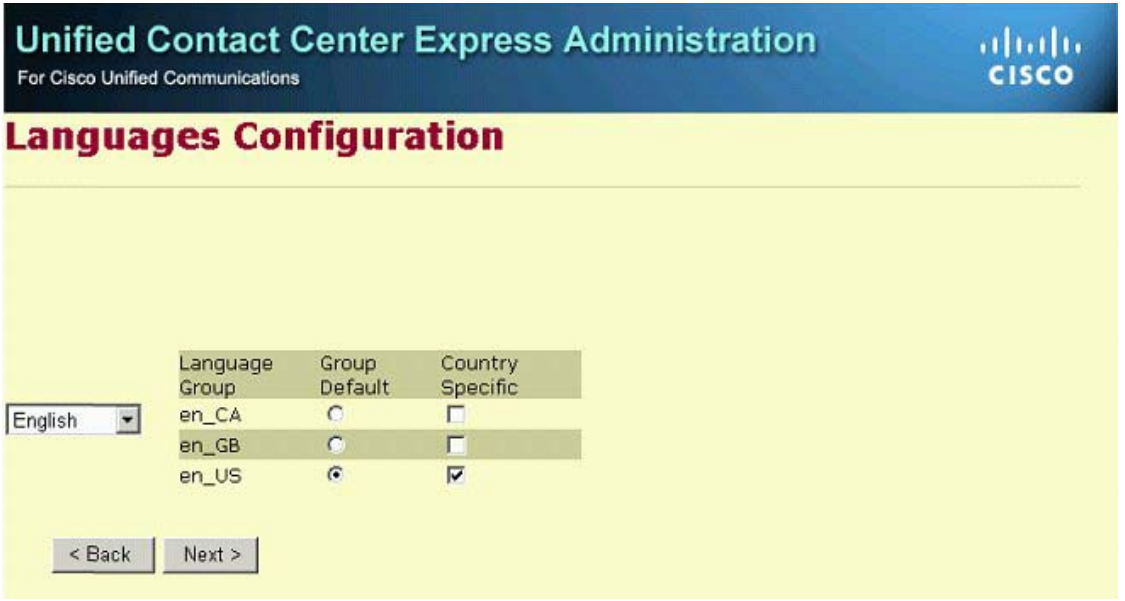
c. In the Number of Outbound seats field, enter the maximum number of outbound seats.

d. From the Codec drop-down list, choose the codec to use for prompts.

e. Click **Next**.

The Languages Configuration page displays.

Figure 11-7 Languages Configuration Page



Step 8 In the Languages Configuration page, take these actions:

a. From the drop-down list, choose a language that you want to be available for prompts.

A list of available languages for the language group that you selected displays in the Language Selection area.

b. If you will create a custom country-specific language, check the **Group Default** check box next to a language to use as a base for your custom country-specific language.

c. Check the **Country Specific** check box for each language to install. A country-specific language includes appropriate rules for dates, times, currency, and so on, for the designated country.

d. Click **Next**.

The User Configuration page displays.

Figure 11-8 User Configuration Page

Step 9 In the User Configuration page:

a. In the **Unified CM Users** list box, select the Cisco Unified CM user that you want to designate as the Cisco Unified CCX administrator.

If the user that you want does not appear in the Unified CM Users list box, enter part or all of that user name in the Search field and click **Search**.

If you are still unable to see the user in the Unified CM Users list box, you need to create a new user. Refer the section, **Creating a New Cisco Unified CM User** in **Chapter 8**.

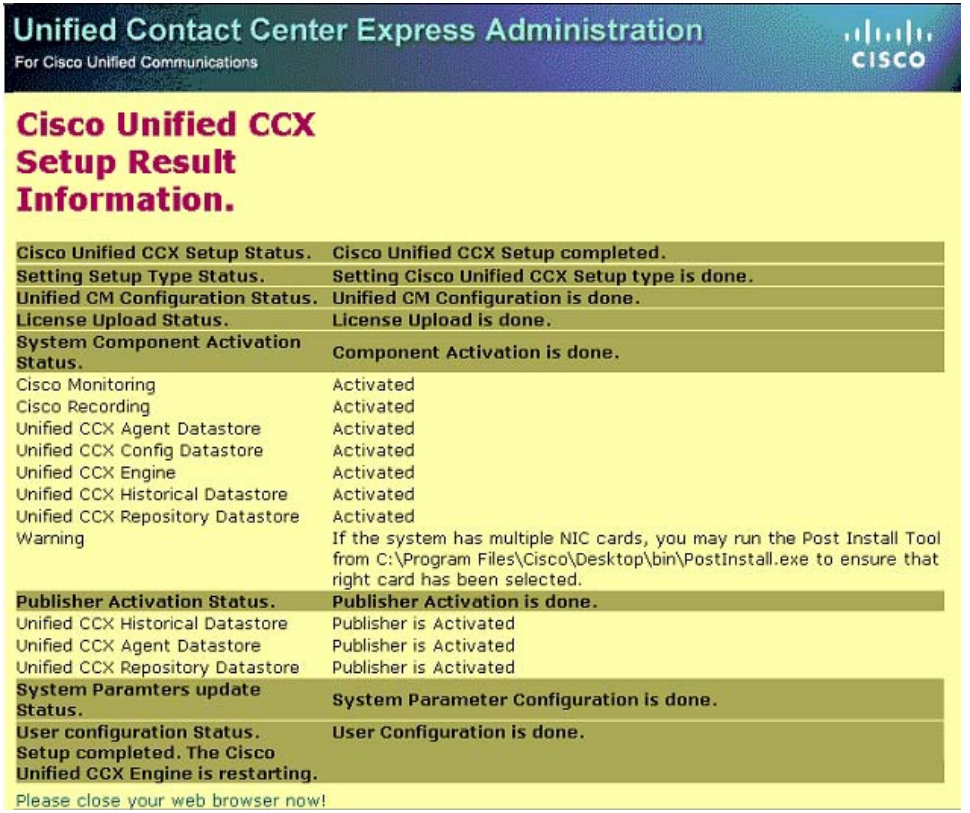
b. Click the left arrow (<) to move the selected user to the Unified CCX Administrator list box.

c. Click **Finish**.

The Cisco Unified CCX Setup Result information displays. This window confirms the results of the initial set up.

Note If this page includes a multiple NIC warning and suggestion to run the Post Install tool, refer the *Cisco CAD Installation Guide* for detailed information about using this tool.

Figure 11-9 Cisco Unified CCX Setup Result Information Page



Unified Contact Center Express Administration
For Cisco Unified Communications

Cisco Unified CCX Setup Result Information.

Cisco Unified CCX Setup Status.	**Cisco Unified CCX Setup completed.**
Setting Setup Type Status.	**Setting Cisco Unified CCX Setup type is done.**
Unified CM Configuration Status.	**Unified CM Configuration is done.**
License Upload Status.	**License Upload is done.**
System Component Activation Status.	**Component Activation is done.**
Cisco Monitoring	Activated
Cisco Recording	Activated
Unified CCX Agent Datastore	Activated
Unified CCX Config Datastore	Activated
Unified CCX Engine	Activated
Unified CCX Historical Datastore	Activated
Unified CCX Repository Datastore	Activated
Warning	If the system has multiple NIC cards, you may run the Post Install Tool from C:\Program Files\Cisco\Desktop\bin\PostInstall.exe to ensure that right card has been selected.
Publisher Activation Status.	**Publisher Activation is done.**
Unified CCX Historical Datastore	Publisher is Activated
Unified CCX Agent Datastore	Publisher is Activated
Unified CCX Repository Datastore	Publisher is Activated
System Paramters update Status.	**System Parameter Configuration is done.**
User configuration Status. Setup completed. The Cisco Unified CCX Engine is restarting.	**User Configuration is done.**

Please close your web browser now!

Step 10 Close your web browser.

You have completed the initial setup of Cisco Unified CCX. To change the configuration settings that you made or to perform additional configuration activities, refer the *Cisco Unified Contact Center Express Administration Guide*.

Performing First Node Setup for a Deployment with Cisco Unified CM

When you access Cisco Unified CCX Administration for the first time, the system automatically initiates the initial setup procedure.

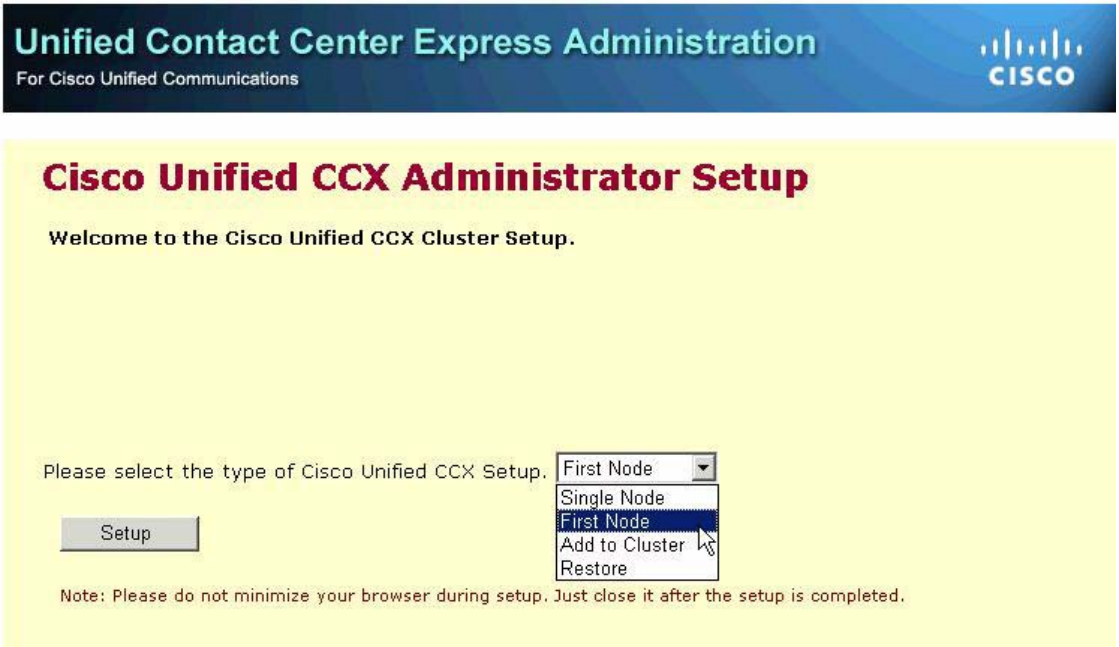
If you are deploying Cisco Unified CCX with Cisco Unified CM in a deployment with two nodes, perform on the first node the setup procedure that is described in this section. You perform this procedure one time to provide information about Cisco Unified CM, license files, and other system parameters.

Note Before you begin the setup procedure, review the information in the Obtaining License Files section of **Chapter 3**.

To perform the initial setup, follow these steps:

Step 1 Access Cisco Unified CCX Administration. The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Figure 11-10 Cisco Unified CCX Administrator Setup Page



Step 2 Make sure that the CSA is disabled, and click **OK** in the pop-up window.

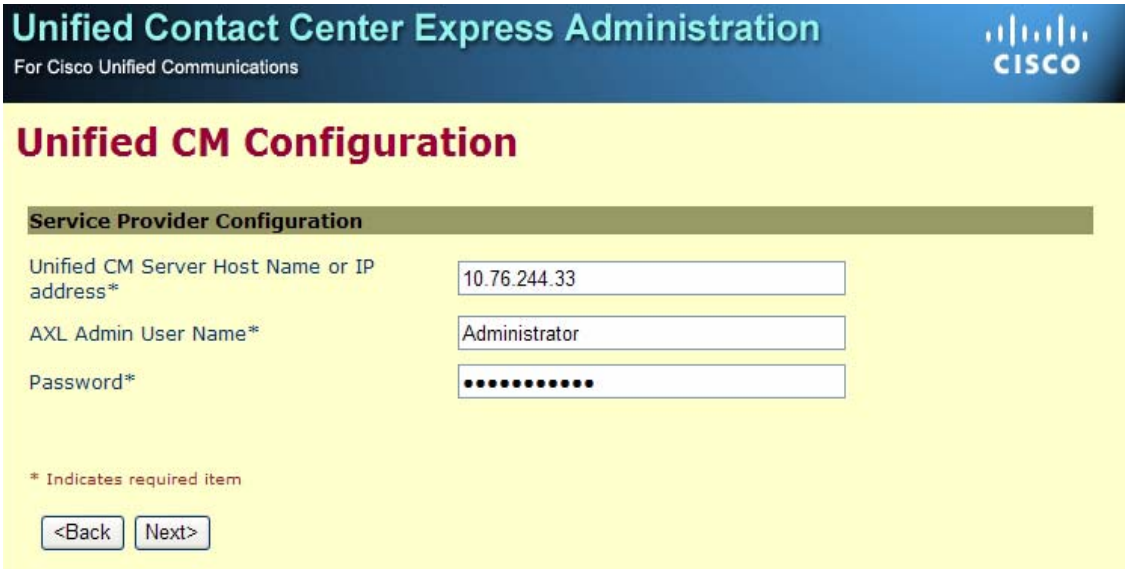
Step 3 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From Cisco Unified CCX Setup drop down list, choose **First Node**.

b. Click the **Setup** button.

The Cisco Unified CM Configuration page displays.

Figure 11-11 Cisco Unified CM Configuration Page



Step 4 In the Cisco Unified CM Configuration page, take these actions:

a. In the Cisco Unified CM server hostname or IP address, enter the host name or IP address of the Cisco Unified CM server.

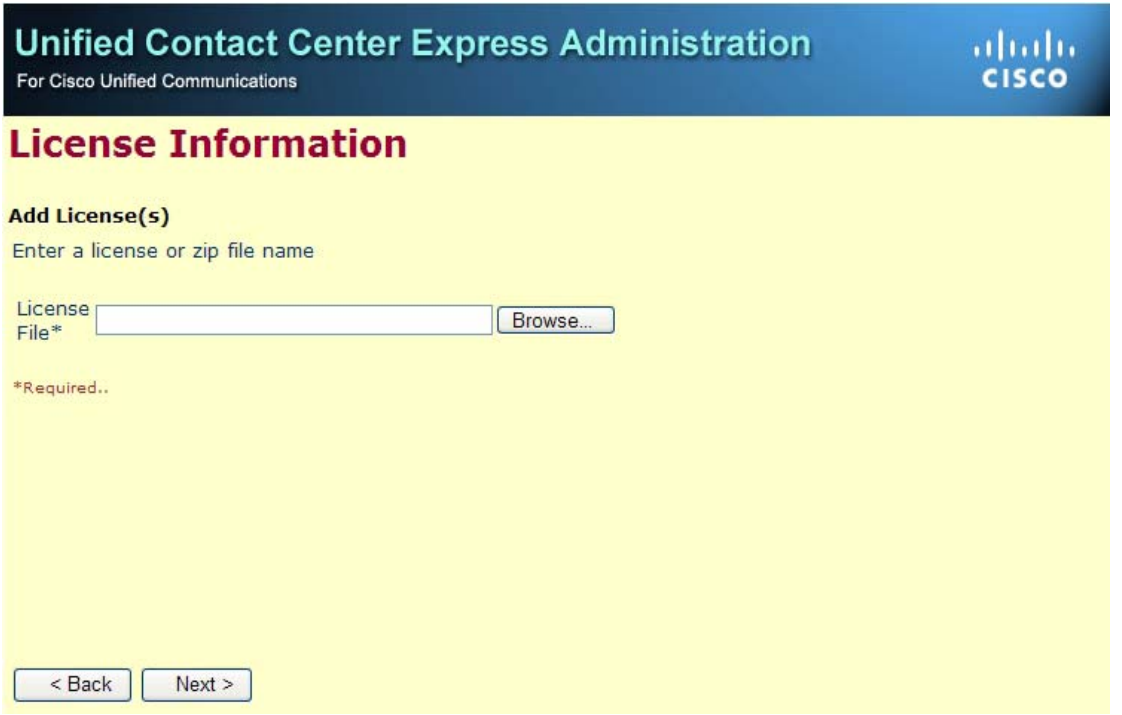
b. In the AXL Admin User Name field, enter the AXL user ID that you created in Cisco Unified CM.

c. In the Password field, enter the AXL password that you created in Cisco Unified CM.

d. Click **Next**.

The License Information page displays.

Figure 11-12 License Information Page



Step 5 In the License Information page:

a. In the License File field, enter the path and name of a Cisco Unified CCX license file, or of a ZIP file that contains multiple license files.

b. Click **Next**.

The License Information page displays again.

c. Take one of these actions:

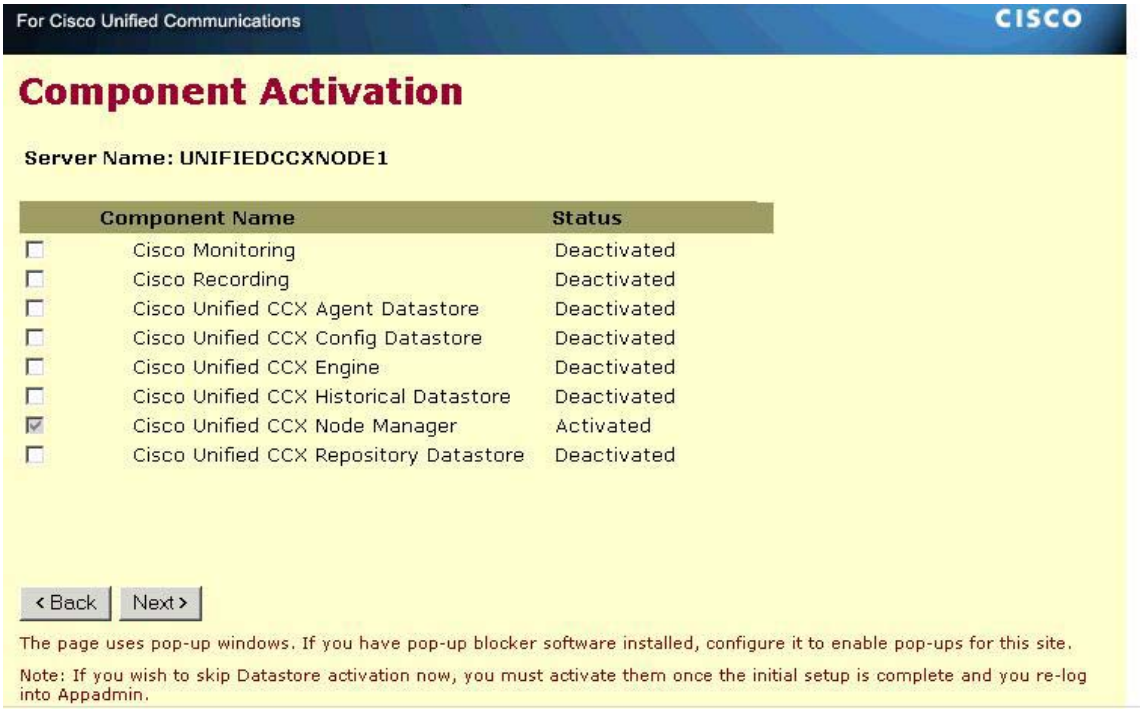
– If you wish to enter multiple license files that you have not put into a single ZIP file, enter the path and name of another license file in the License File field and then click **Next**.

The license information page displays again. Repeat this process until you have entered all license files.

– If you have entered the name of a ZIP file that contains multiple license files or have entered all your license files, leave the License File field blank and click **Next**.

The Component Activation page displays.

Figure 11-13 Component Activation Completed Page



Step 6 In the Component Activation page:

a. Check the check boxes next to the components that you want to activate on this server.

You can select components that are not licensed, but those components will not be activated until you add their license files. For information about adding license files, refer the *Cisco Unified Contact Center Express Administration Guide*.

The check boxes in the Component Activation page are:

- **Cisco Monitoring**—Enables the Monitoring component on this server.
- **Cisco Recording**—Enables the Recording component on this server. If you check this check box, you must also check the **Cisco Monitoring** check box.
- **Cisco Unified CCX Agent Datastore, Cisco Unified CCX Config Datastore, Cisco Unified CCX Historical Datastore, Cisco Unified CCX Repository Datastore**—Enables the Database component on this server. If you have a Cisco Unified CCX license, check all of these check boxes. If you have a Cisco Unified IP IVR license, check all of these check boxes except Cisco Unified CCX Agent Datastore, which is not used.
- **Cisco Unified CCX Engine**—Enables the Cisco Unified CCX Engine component on this server.
- **Cisco Unified CCX Node Manager**—Enables services that this node uses to monitor other services and communicate with other nodes. This check box is checked by default and cannot be unchecked.

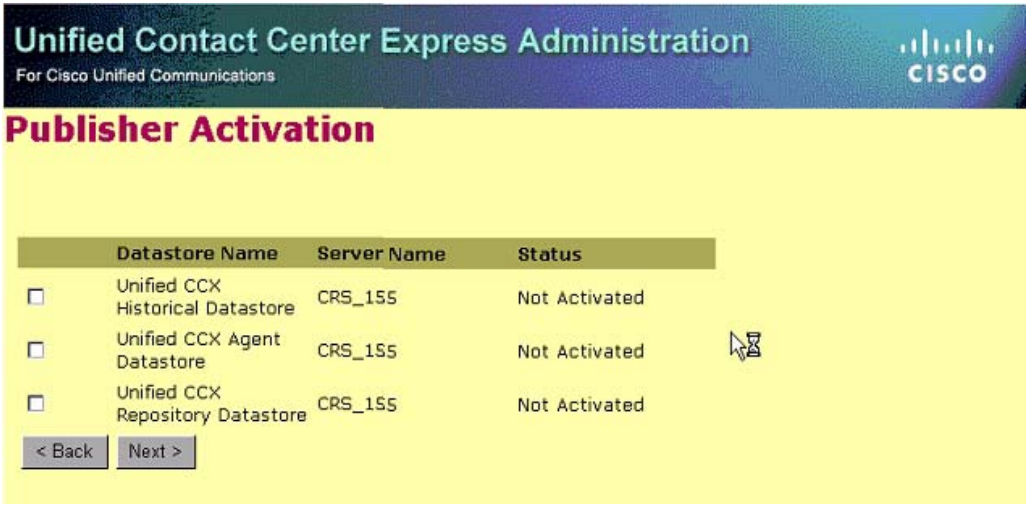
b. Click **Next**.

Cisco Unified CCX activates the components that you selected. This process can take several minutes.

c. If you selected the datastore components (Cisco Unified CCX Agent Datastore, Cisco Unified CCX Config Datastore, Cisco Unified CCX Historical Datastore, Cisco Unified CCX Repository Datastore), the Publisher Activation page displays. This page shows the datastores that you selected, as shown in Figure 8-14.Continue to Step 7.

If you did not select the datastore components, the Cisco Unified CM Configuration page displays, as shown in Figure 8-15, go to Step 8.

Figure 11-14 Publisher Activation Page



Step 7 In the Publisher Activation page:

a. If you want this server to be the database publisher, check the check boxes for each datastore.

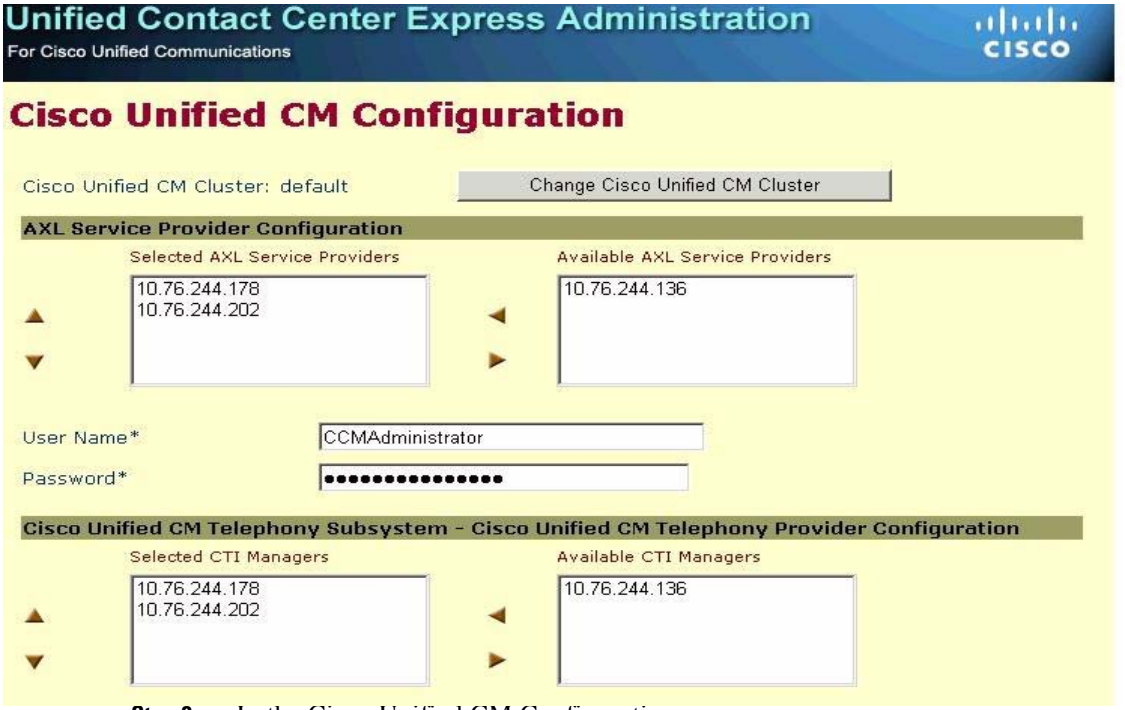
If you want the other server in the cluster to be the database publisher, do not check any check boxes in this page.

You should activate all datastores on the same server, which can be either server in your Cisco Unified CCX cluster.

b. Click **Next**.

The Cisco Unified CM Configuration page displays. Figure 8-15 shows part of this page.

Figure 11-15 Cisco Unified CM Configuration Page, Partial View



Step 8 In the Cisco Unified CM Configuration page:

a. In the AXL Service Provider Configuration area, move the IP address of the Cisco Unified CM server or servers that you want to use as the AXL service provider from the Available AXL Service Providers list box to the Selected AXL Service Providers list box.

The Selected AXL Service Providers list box is pre-populated with the IP address of the server that you specified in Stpep4.

To move an item from one list box to the other, select the item and then click left arrow (<) or right arrow (>).

b. In the User Name field in the AXL Service Provider Configuration area, enter a user name for the AXL service provider, if you want to change the name that displays.

This field is pre-populated with the user name that you specified in Step 4.

c. In the Password field in the AXL Service Provider Configuration area, enter a password for the AXL service provide, if you want to change the name that appear.

   This field is pre-populated with the password that you specified in Step 4.

d. In the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, move the IP address of the Cisco Unified CM server that you want to use as the CTI provider for the Cisco Unified CM Telephony subsystem from the Available CTI Managers list box to the Selected CTI Managers list box.

   To move an item from one list box to the other, select the item and then click left arrow (<) or right arrow (>).

e. In User Prefix field in the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter an application user name for the Cisco Unified CM Telephony subsystem.

f. In the Password and Confirm Password fields in the Cisco Unified CM Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter a password for the Cisco Unified CM Telephony subsystem application user.

g. In the RmCm Subsystem - RmCm Provider Configuration area, move the IP address of the Cisco Unified CM server that you want to use as the CTI provider for the RmCm subsystem from the Available CTI Managers list box to the Selected CTI Managers list box.

   To move an item from one list box to the other, select the item and then click left arrow (<) or right arrow (>).

Note Depending on your Cisco Unified CCX license, the RmCm Subsystem - RmCm Provider Configuration area may not be available on your system.

h. In User ID field in the RmCm Subsystem - RmCm Provider Configuration area, enter an application user name for the RmCm subsystem.

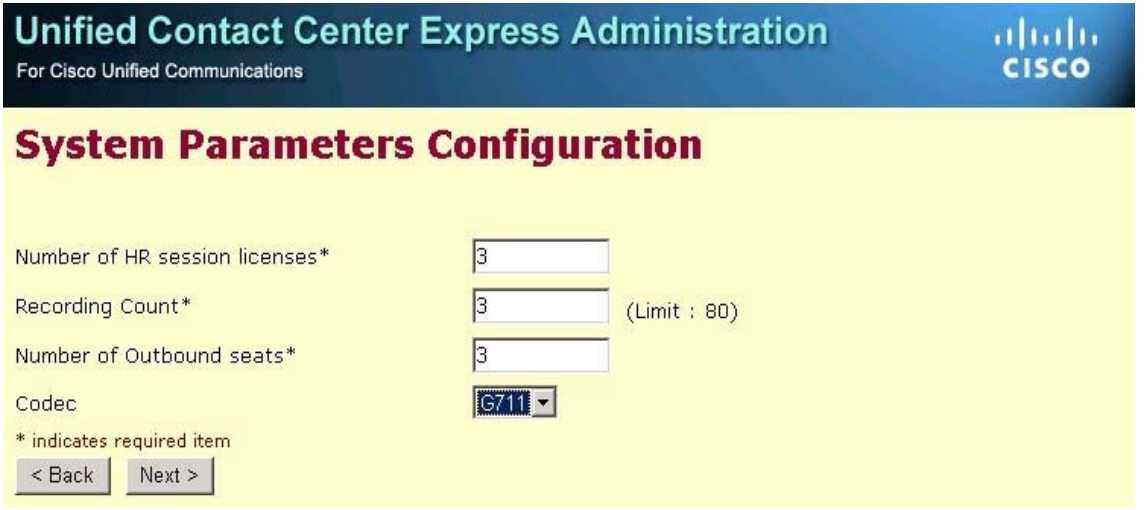
i. In the Password and Confirm Password fields in the Cisco Unified Telephony Subsystem - Cisco Unified CM Telephony Provider Configuration area, enter a password for the RmCm subsystem application user.

j. In the Host Name or IP Address field in the NTP area, enter the host name or the IP address of the NTP server.

k. Click **Next**.

The System Parameters Configuration page displays.

Figure 11-16 System Parameters Configuration Page



Step 9 In the Systems Parameters Configuration page, take these actions:

a. In the Number of HR Session Licenses field, enter the maximum number of Cisco Unified CCX Historical Reporting sessions that you will run simultaneously.

b. In the Recording Count field, enter the maximum number of simultaneous recordings that you will make.

This field displays only if you have a Cisco Unified CCX license.

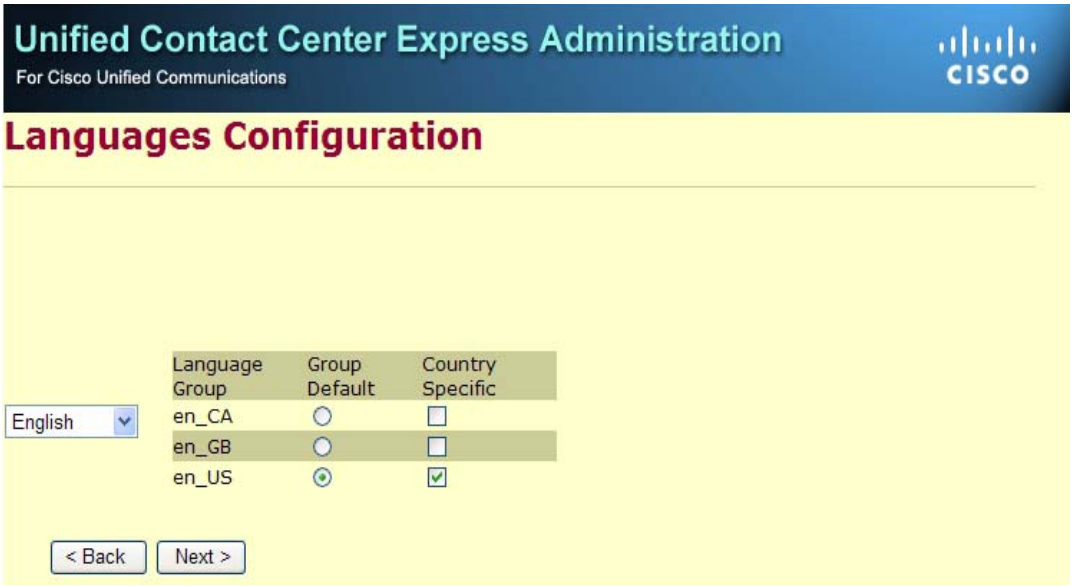
c. In the Number of Outbound seats field, enter the maximum Outbound seats.

d. From the Codec drop-down list, choose the codec to use for prompts.

e. Click **Next**.

The Languages Configuration page displays.

Figure 11-17 Languages Configuration Page



Step 10 In the Languages Configuration page, perform the following steps:

a. From the drop-down list, choose a language that you want to be available for prompts.

A list of available languages for the language group that you selected displays in the Language Selection area.

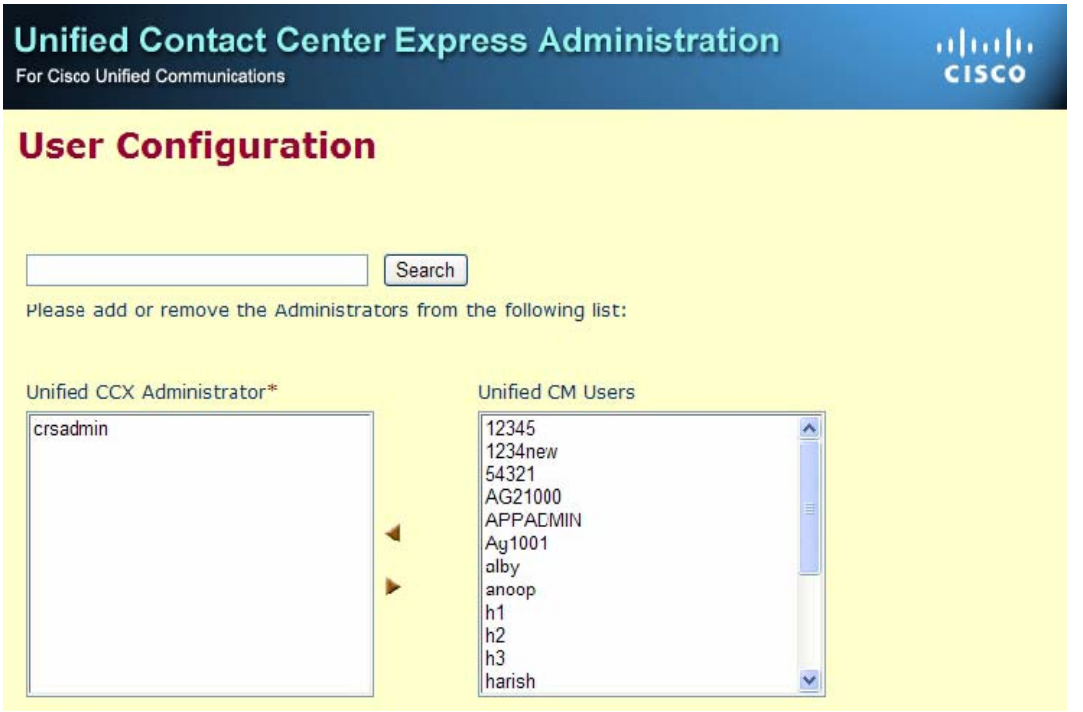
b. If you will create a custom country-specific language, check the **Group Default** check box next to a language to use as a base for your custom country-specific language.

c. Check the **Country Specific** check box for each language to install. A country-specific language includes appropriate rules for dates, times, currency, and so on, for the designated country.

d. Click **Next**.

The User Configuration page displays.

Figure 11-18 User Configuration Page



Step 11 In the User Configuration page:

a. In the **Unified CM Users** list box, select the Cisco Unified CM user that you want to designate as the Cisco Unified CCX administrator.

If the user that you want does not appear in the CMUsers list box, enter part or all of that user name in the Search field and click **Search**.

If you are still unable to see the user in the Unified CM Users list box, you need to create a new user. To create a new user, refer the section on Creating a New User in this chapter.

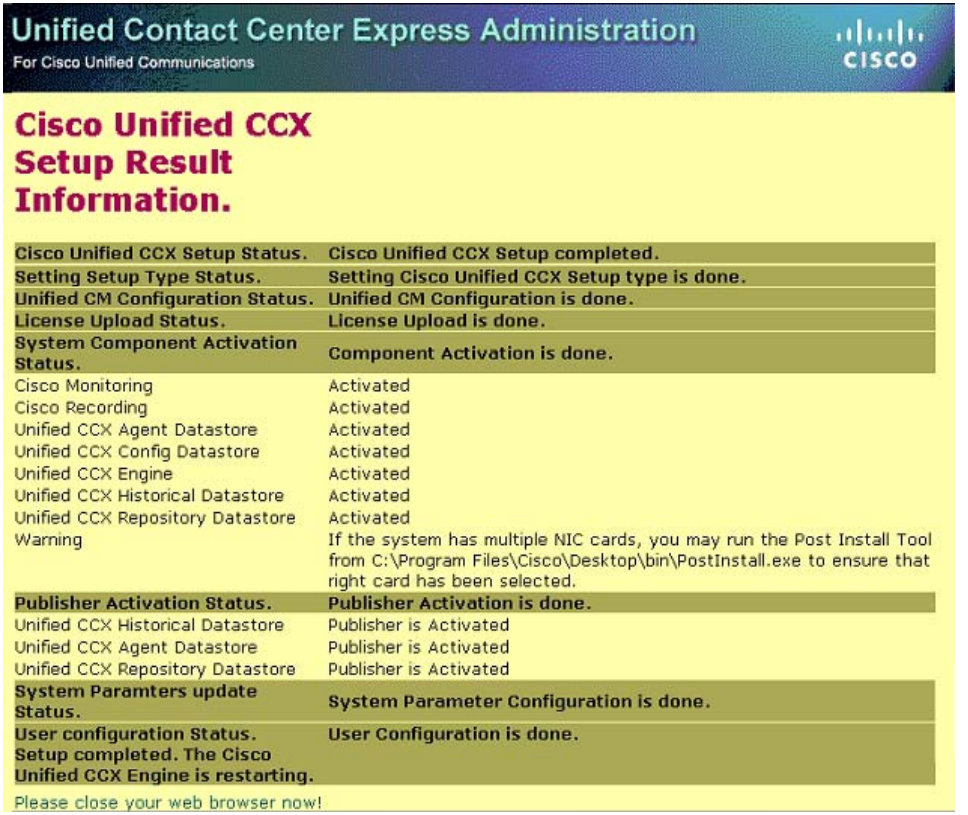
b. Click the left arrow (<) to move the selected user to the Unified CCX Administrator list box.

c. Click **Finish**.

The Cisco Unified CCX Setup Result information displays. This window confirms the results of the initial set up on the first node in a cluster.

Note If this page includes a multiple NIC warning and suggestion to run the Post Install tool, refer the *Cisco CAD Installation Guide* for detailed information about using this tool.

Figure 11-19 Cisco Unified CCX Setup Result Information Page



Unified Contact Center Express Administration
For Cisco Unified Communications

Cisco Unified CCX Setup Result Information.

Cisco Unified CCX Setup Status.	**Cisco Unified CCX Setup completed.**
Setting Setup Type Status.	**Setting Cisco Unified CCX Setup type is done.**
Unified CM Configuration Status.	**Unified CM Configuration is done.**
License Upload Status.	**License Upload is done.**
System Component Activation Status.	**Component Activation is done.**
Cisco Monitoring	Activated
Cisco Recording	Activated
Unified CCX Agent Datastore	Activated
Unified CCX Config Datastore	Activated
Unified CCX Engine	Activated
Unified CCX Historical Datastore	Activated
Unified CCX Repository Datastore	Activated
Warning	If the system has multiple NIC cards, you may run the Post Install Tool from C:\Program Files\Cisco\Desktop\bin\PostInstall.exe to ensure that right card has been selected.
Publisher Activation Status.	**Publisher Activation is done.**
Unified CCX Historical Datastore	Publisher is Activated
Unified CCX Agent Datastore	Publisher is Activated
Unified CCX Repository Datastore	Publisher is Activated
System Paramters update Status.	**System Parameter Configuration is done.**
User configuration Status. Setup completed. The Cisco Unified CCX Engine is restarting.	**User Configuration is done.**

Please close your web browser now!

Step 12 Close your web browser.

You have completed the setup of Cisco Unified CCX for the first node in a two-node cluster. To change the configuration settings that you made or to perform additional configuration activities, refer the *Cisco Unified Contact Center Express Administration Guide*.

Now you are ready to configure the second node as described in the section **Performing the Add to Cluster Setup Procedure for a Deployment with Unified CM**.

Performing the Add to Cluster Setup for a Deployment with Cisco Unified CM

When you access Cisco Unified CCX Administration for the first time, the system automatically initiates the initial setup procedure.

If you are deploying Cisco Unified CCX with Cisco Unified CM, perform the setup procedure that is described in this section. You perform this procedure one time to provide information about the Cisco Unified CCX cluster and other system parameters. You also perform this procedure if you are restoring Cisco Unified CCX on a two-node cluster. In that case, you start with the Restore setup procedure and perform this procedure when you are prompted to do so.

Before you begin the setup procedure, ensure that the primary node is active (up and running). If the primary node is not active, refer **Performing the First Node Setup Procedure for a Deployment with Unified CM**. Also, review the information in the **Obtaining License Files section in Chapter 3**.

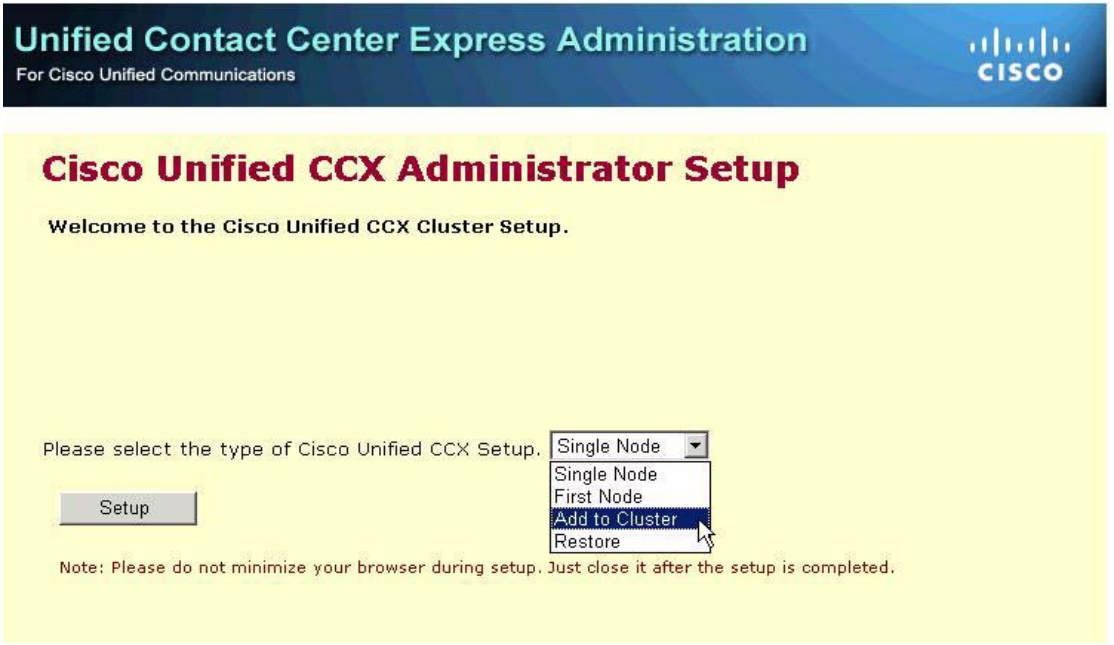
After you complete this setup procedure, refer the **Performing the Restore Setup Procedure section in this chapter** to restore the backed-up Cisco Unified CCX data.

To perform the initial setup, follow these steps:

Step 1 Access Cisco Unified CCX Administration.

The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Figure 11-20 Cisco Unified CCX Administrator Setup Page



Step 2 Make sure that the CSA is disabled, and click **OK** in the pop-up window.

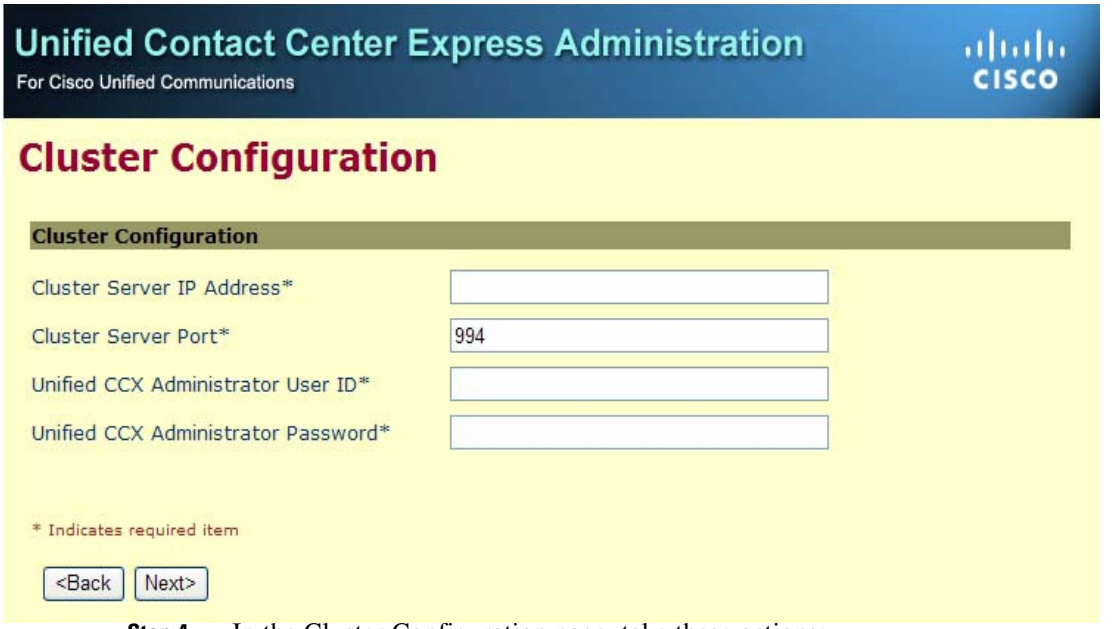
Step 3 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From Cisco Unified CCX Setup drop down list, choose **Add to Cluster**.

b. Click the **Setup** button.

The Cluster Configuration page displays.

Figure 11-21 Cluster Configuration Page



Step 4 In the Cluster Configuration page, take these actions:

a. In the Cluster Server IP address, enter the IP address of the first node that you set up as described in the **Performing the First Node Setup Procedure for a Deployment with Unified CM**.

b. In the Cluster Server Port, accept the value that is entered automatically.

c. In the Cisco Unified CCX Administrator User ID field:

   – If you are performing this procedure as part of a new installation of Cisco Unified CCX, enter the ID of the user that you designated as the Cisco Unified CCX administrator when you set up the first node in the cluster.

   – If you are performing this procedure as instructed by the Restore setup procedure, enter **Administrator**.

d. In the Password field:

   – If you are performing this procedure as part of a new installation of Cisco Unified CCX, enter the password of the user that you designated as the Cisco Unified CCX administrator when you set up the first node in the cluster.

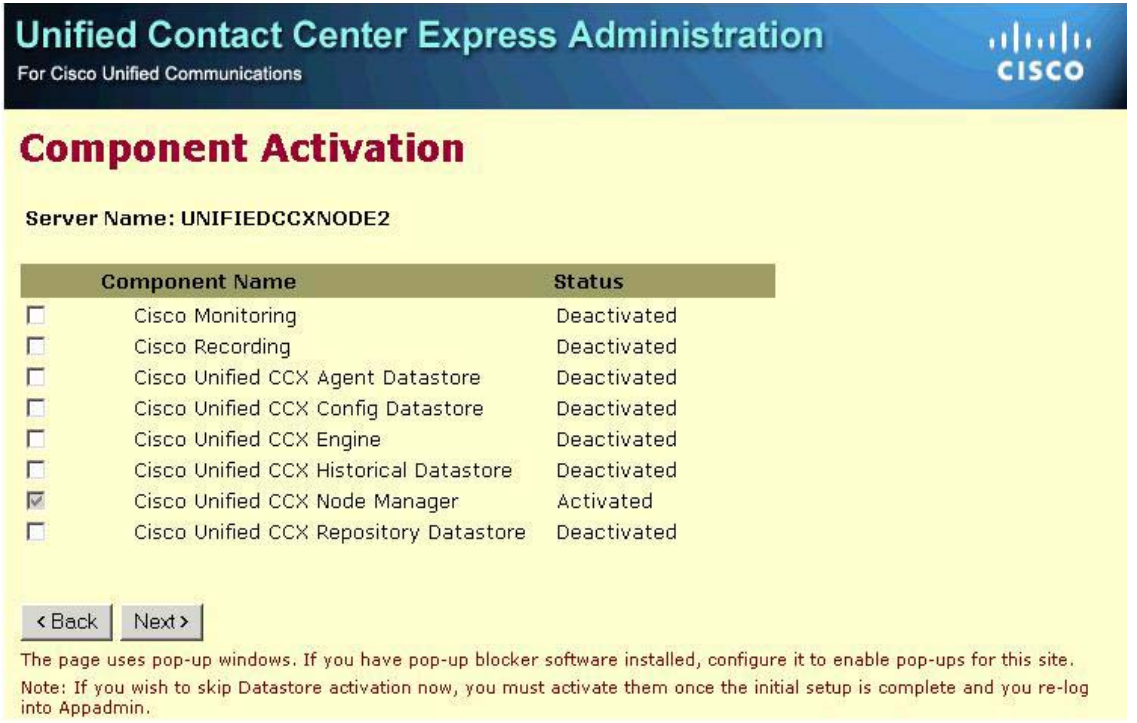
- If you are performing this procedure as instructed by the Restore setup procedure, enter **ciscocisco**.

e. Click **Next**.

If you are performing this procedure as part of a new installation of Cisco Unified CCX, the Component Activation page displays. Continue to **Step 5**.

If you are performing this procedure as instructed by the Restore setup procedure, you are prompted to close the browser and continue with the restore procedure on the first node. Close the web browser on this server and go to Step 7 of the Performing the Restore Setup Procedure section.

Figure 11-22 Component Activation Completed Page



Step 5 In the Component Activation page:

a. Check the check boxes next to the components that you want to activate on this server.

You can select components that are not licensed, but those components will not be activated until you add their license files. For information about adding license files, refer the *Cisco Unified Contact Center Express Administration Guide*.

The check boxes in the Component Activation page are:

- **Cisco Monitoring**—Enables the Monitoring component on this server.
- **Cisco Recording**—Enables the Recording component on this server. If you check this check box, you must also check the **Cisco Monitoring** check box.
- **Cisco Unified CCX Agent Datastore, Cisco Unified CCX Config Datastore, Cisco Unified CCX Historical Datastore, Cisco Unified CCX Repository Datastore**—Enables the Database component on this server. If you have a Cisco Unified CCX license, check all of these check boxes. If you have a Cisco Unified IP IVR license, check all of these check boxes except Cisco Unified CCX Agent Datastore, which is not used.
- **Cisco Unified CCX Engine**—Enables the Cisco Unified CCX Engine component on this server.
- **Cisco Unified CCX Node Manager**—Enables services that this node uses to monitor other services and communicate with other nodes. This check box is checked by default and cannot be unchecked.

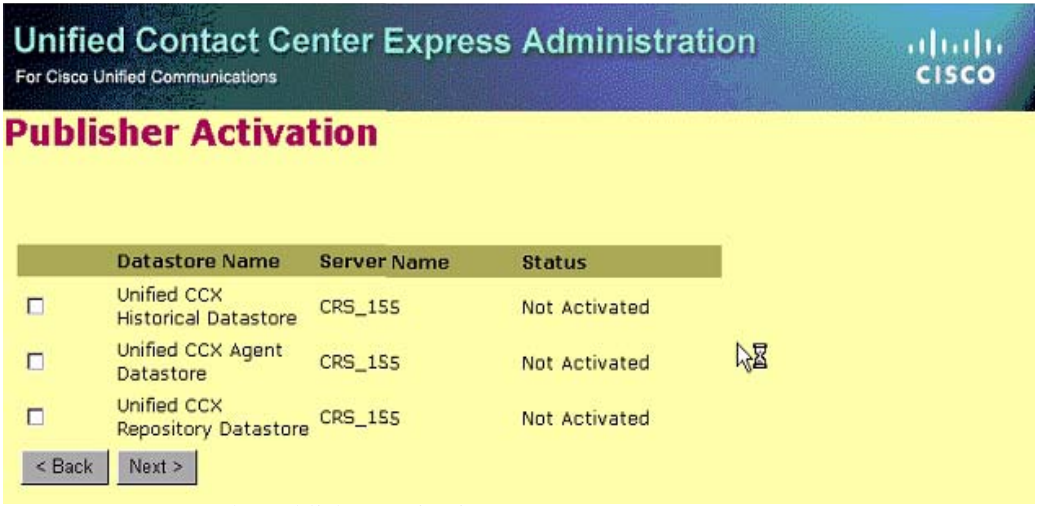
b. Click **Next**.

Cisco Unified CCX activates the components that you selected. This process can take several minutes.

c. If you selected the datastore components (Cisco Unified CCX Agent Datastore, Cisco Unified CCX Config Datastore, Cisco Unified CCX Historical Datastore, Cisco Unified CCX Repository Datastore), and if you did not configure the first node in the cluster as the publisher, the Publisher Activation page displays. This page shows the datastores that you selected. Continue to Step 6.

If you did not select the datastore components, the Cisco Unified CCX Setup Result Information Page page displays. This page confirms the results of the initial set up on the second node in a cluster. Go to Step 7.

Figure 11-23 Publisher Activation Page



Step 6 In the Publisher Activation page:

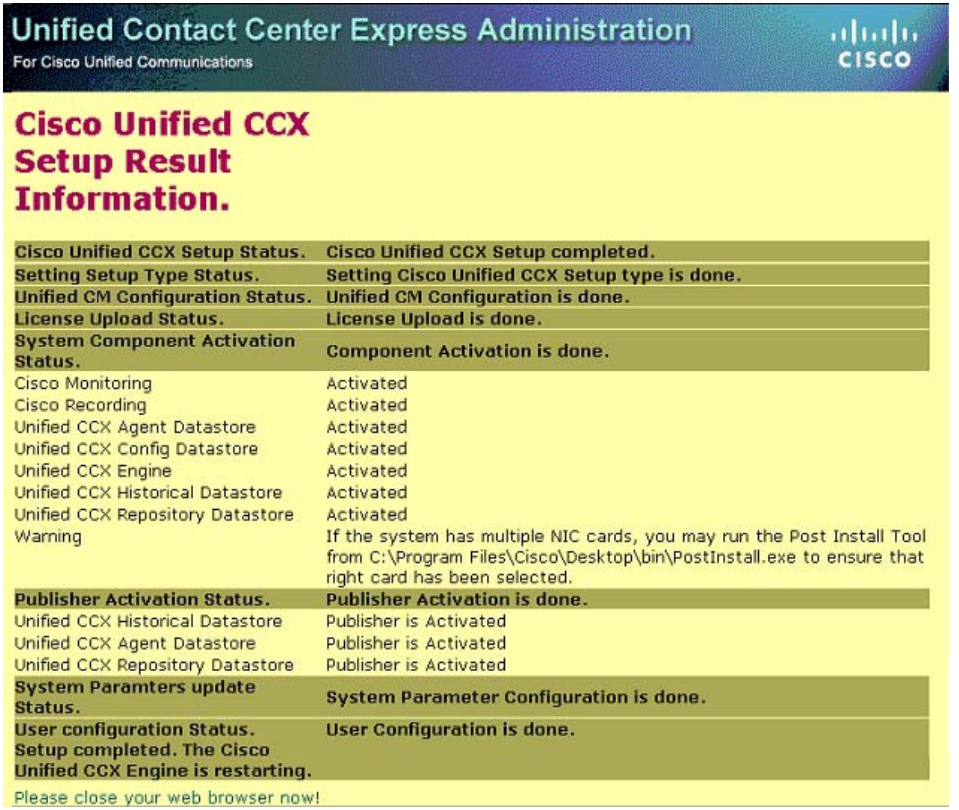
a. Check the check boxes for each datastore if you have not done so in the first node installation.

This server will be the database publisher.

b. Click **Next**.

The Cisco Unified CCX Setup Result Information page displays. This page confirms the results of the initial set up on the second node in a cluster.

Figure 11-24 Cisco Unified CCX Setup Results Information Page



Unified Contact Center Express Administration
For Cisco Unified Communications

Cisco Unified CCX Setup Result Information.

Cisco Unified CCX Setup Status.	**Cisco Unified CCX Setup completed.**
Setting Setup Type Status.	**Setting Cisco Unified CCX Setup type is done.**
Unified CM Configuration Status.	**Unified CM Configuration is done.**
License Upload Status.	**License Upload is done.**
System Component Activation Status.	**Component Activation is done.**
Cisco Monitoring	Activated
Cisco Recording	Activated
Unified CCX Agent Datastore	Activated
Unified CCX Config Datastore	Activated
Unified CCX Engine	Activated
Unified CCX Historical Datastore	Activated
Unified CCX Repository Datastore	Activated
Warning	If the system has multiple NIC cards, you may run the Post Install Tool from C:\Program Files\Cisco\Desktop\bin\PostInstall.exe to ensure that right card has been selected.
Publisher Activation Status.	**Publisher Activation is done.**
Unified CCX Historical Datastore	Publisher is Activated
Unified CCX Agent Datastore	Publisher is Activated
Unified CCX Repository Datastore	Publisher is Activated
System Paramters update Status.	**System Parameter Configuration is done.**
User configuration Status. Setup completed. The Cisco Unified CCX Engine is restarting.	**User Configuration is done.**

Please close your web browser now!

Step 7 Close your web browser.

Note If Cisco Unified CCX Setup Result Information page includes a multiple NIC warning and suggestion to run the Post Install tool, refer the *Cisco CAD Installation Guide* for detailed information about using this tool.

You have completed the setup of Cisco Unified CCX for the second node in a two-node cluster. To change the configuration settings that you made or to perform additional configuration activities, refer the *Cisco Unified Contact Center Express Administration Guide*.

Creating New Cisco Unified CM Users

To create new Cisco Unified CM users, follow these steps:

Step 1 Access the Cisco Unified CCX Administration page and log in.

Step 2 In Cisco Unified CM Administrator Setup page, click **User Management > End Users**.

Step 3 In the **Find and List Users** page, click **Add New**.

Step 4 Create an end user by specifying the mandatory fields and other required details.

Step 5 Once the end user creation is successful, navigate back to Cisco Unified CCX Administration and click **Refresh**.

Step 6 When you click Refresh, the new end user you created is listed in the Unified CM Users list box.

Step 7 In the Unified CM Users list box, select the Cisco Unified CM user that you want to designate as the Cisco Unified CCX administrator.

Step 8 Click the left arrow (<) to move the selected user to the Unified CCX Administrator list box.

Step 9 Click **Finish**.

Performing the Restore Setup

When you access Cisco Unified CCX Administration for the first time, the system automatically initiates the initial setup procedure.

Perform the procedure that is described in this section if you are upgrading from CRS 4.5(x) to Cisco Unified CCX 7.0(1) or if you are reinstalling Cisco Unified CCX 7.0(1) after backing up the Cisco Unified CCX data and re-imaging the server. You perform this procedure one time to restore backed up Cisco Unified CCX data and provide information about various system parameters.

During this procedure, you are prompted whether you want to perform the Cisco Unified CM Telephony synchronization. This process reconfigures route points and CTI ports as they are configured in your Cisco Unified CCX backup and can take several hours, depending on the number of route points and CTI ports. If you choose to skip this process as part of this setup procedure, ensure that you perform

the synchronization process later using Cisco Unified CCX Administration. The Cisco Unified CM Telephony service will be out of service or in partial service until you do so.

Before you begin the setup procedure:

- Review the following sections in the "Backing-up and Restoring Data" in *Cisco Unified Contact Center Express Administration Guide*. These sections provide important notes, tips, and cautions.
  - "Guidelines and Requirements"
  - "Performing a Restore Operation"
- Review the information in the Obtaining the License Files section in Chapter 3. If you are upgrading from CRS 4.5(x), copy your 7.0(1) license files to a directory on the Cisco Unified CCX server. Make a note of this directory name and location.
- If you are upgrading from CRS 4.5(x), perform the following steps to temporarily reconfigure Cisco Unified CM to change the maximum number of Administrative XML Layer (AXL) writes allowed per minute. This change allows the setup procedure to complete more quickly and conserves CPU resources. Cisco Unified CM performance may be affected while this parameter is at the new value, so you should consider performing this procedure during off-peak hours.
  a. Start Cisco Unified CM Administration and take these actions:
  b. Choose **System > System Parameters**.
  c. From them **Service** drop-down list, choose the Cisco Database Layer Monitor service
  d. Click **Advanced**.
  e. Make a note of the value in the Maximum AXL Writes Allowed per Minute field, then enter **999** in this field.
  f. Click **Update**.
  g. Exit Cisco Unified CM Administration.

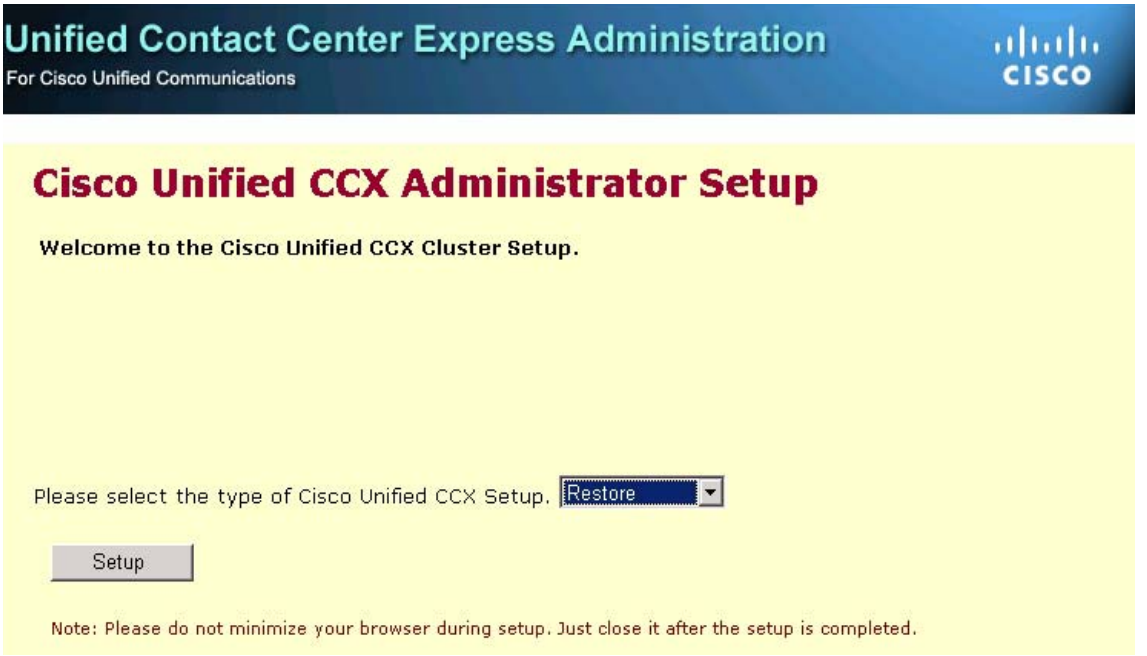
  Make sure to set the maximum AXL writes allowed per minute back to its original value after you complete the setup procedure.

To perform the initial setup, follow these steps:

Step 1 Access Cisco Unified CCX Administration.

The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Figure 11-25 Cisco Unified CCX Administrator Setup Page



Step 2 Make sure that the CSA is disabled, and click **OK** in the pop-up window.

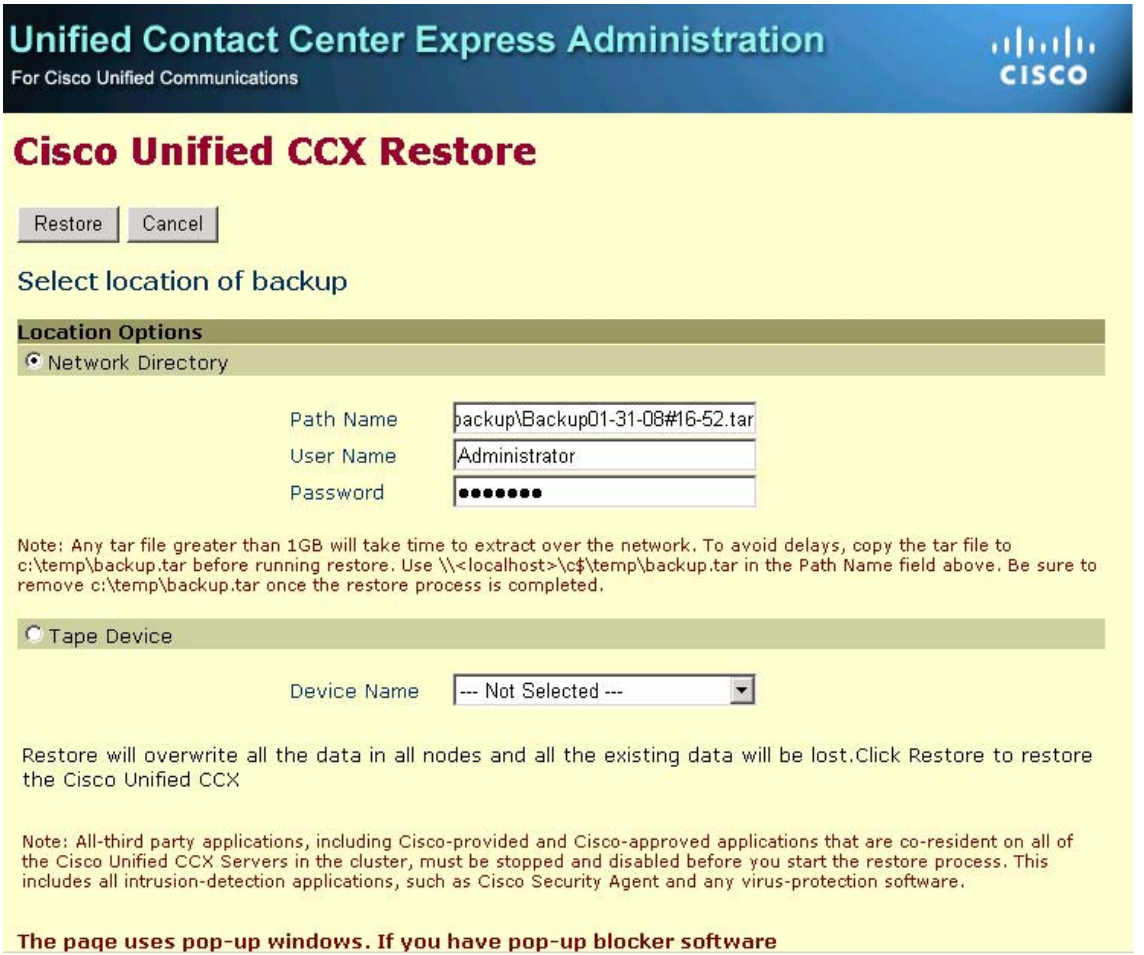
Step 3 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From Cisco Unified CCX Setup drop down list, choose **Restore**.

b. Click the **Setup** button.

The Cisco Unified CCX Restore page displays.

Figure 11-26 Cisco Unified CCX Restore Page



Step 4 In the Cisco Unified CCX Restore Page:

a. Click the radio button (**Network Directory** or **Tape Device**) that corresponds to the location of your Cisco Unified CCX backup file.

b. If you clicked the **Network Directory** radio button:

- In the Path Name field, enter the path and file name to the backup file.
- In the User Name field, enter Windows Administrator user name for the server on which the backup file is stored.
- In the Password field, enter Windows Administrator password for server the on which the backup file is stored.

c. Click **Restore**.

The Cisco Unified CCX Restore Wizard page displays.

Note It may take a long time for this page to appear, depending on the size of your backup file. Do not close the Cisco Unified CCX Administration Application during this time. Doing so will abort the Restore process.

Note Disable pop-up blocker on your system, if activated. If pop-up blocker is enabled, it could cause the restore process to terminate.

In the Cisco Unified CCX Restore Wizard page, click **Next**.

Figure 11-27 Cisco Unified CCX Restore Process

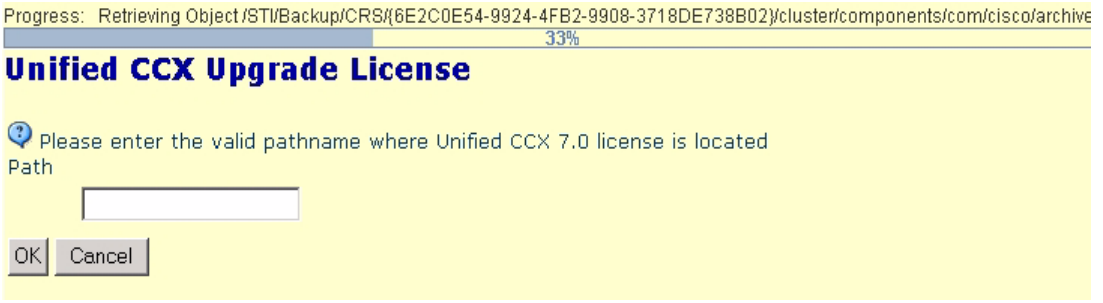
The restore process begins. A status page shows the progress of the restore. The time that this process takes depends on the size of your Cisco Unified CCX database.

If you are performing this procedure while upgrading from CRS 4.5(x), the Cisco Unified CCX Upgrade License page displays. In this case, continue to Step 5.

If you are performing this procedure after reinstalling Cisco Unified CCX in a deployment with one node, you are prompted whether you want to perform the Cisco Unified CM Telephony synchronization. In this case, go to Step 7.

If you are performing this procedure after reinstalling Cisco Unified CCX in a deployment with two nodes, you are prompted to add the second node to the cluster and this restore procedure suspends. In this case, go to the second node and follow the steps in the **Performing the Add to Cluster Setup Procedure for a Deployment with Unified CM**. When you complete that procedure, this restore setup procedure continues and you are prompted whether you want to perform the Cisco Unified CM Telephony synchronization. Go to Step 7.

Figure 11-28 Cisco Unified CCX Upgrade License Page



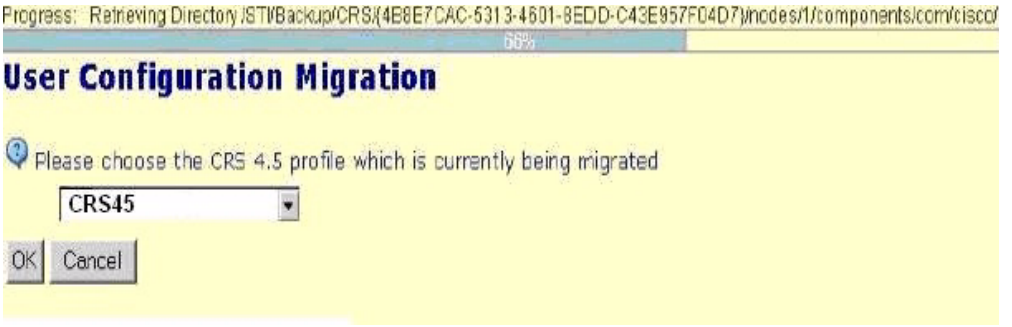
Step 5 In the Cisco Unified CCX Upgrade License page:

a. Enter the path and file name of the Cisco Unified CCX 7.0(1) license file.

b. Click **OK**.

The restore process continues and the system continues to show the status. After a few minutes, the User Configuration Migration page displays.

Figure 11-29 User Configuration Migration Page



Step 6 In the User Configuration Migration page:

a. From the drop-down list, choose the Cisco Unified CCX 7.0(1) cluster profile name.

b. Click **OK**.

The restore process continues. A status page continues to show the status. The time that this process takes depends on the size of your Cisco Unified CCX database. When the restore process completes, you are prompted whether you

want to perform the Cisco Unified CM Telephony synchronization. The synchronization process reconfigure route points and CTI ports as they are configured in your Cisco Unified CCX backup.

Note Cisco Unified CM Telephony synchronization can take several hours, depending on the number of route points and CTI ports. If you choose to skip this process now, ensure that you perform the synchronization process later using Cisco Unified CCX Administration.

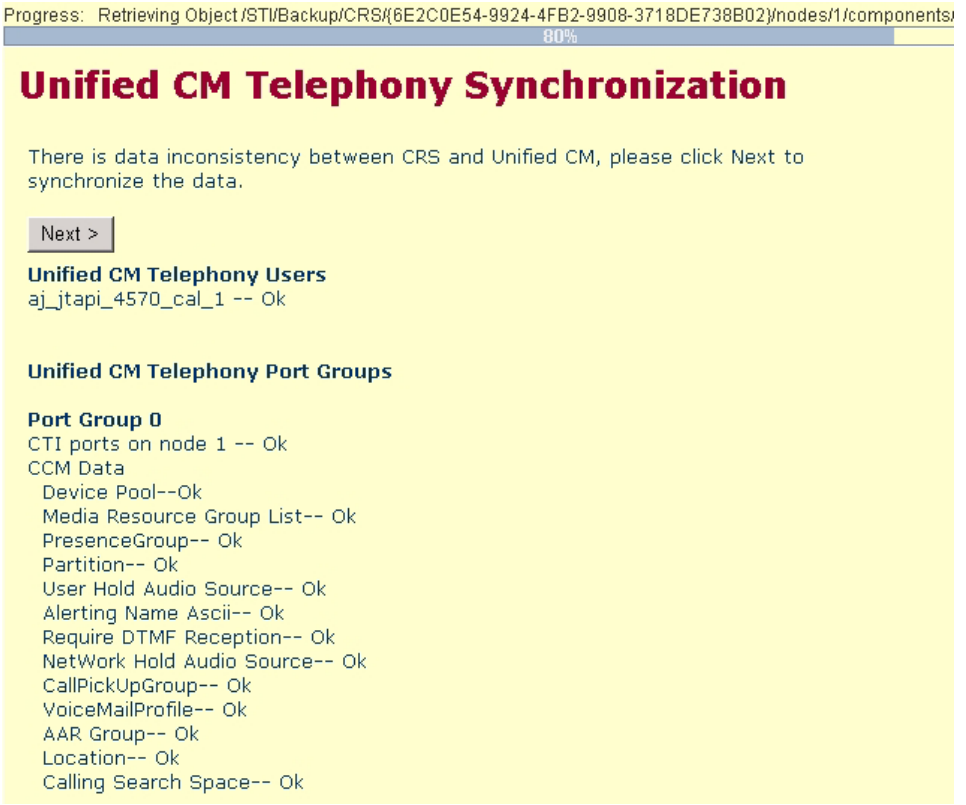
Step 7 Take one of these actions:

- If you want to perform the synchronization process now, click **Continue**. In this case, the Cisco Unified CM Telephony Synchronization page displays. Continue to Step 8.
- If you do not want to perform the synchronization process now, click **Skip**. In this case, the following message displays:

  ```
  Upgrade was successful. Restarting Cluster...You can safely close
  this window.
  ```

  This setup procedure is complete. Close all windows. The Cisco Unified CM Telephony service will be out of service or in partial service until you perform the synchronization process using Cisco Unified CCX Administration.

Figure 11-30 Cisco Unified CM Telephony Synchronization Page



Step 8 In the Cisco Unified CM Telephony Synchronization page, click **Next**.

The system performs the synchronization process. A window displays the status of this process.

Step 9 When the synchronization process completes, click **Done** in the Cisco Unified CM Telephony Synchronization page.

When the upgrade completes, the following message displays:

```
Upgrade was successful. Restarting Cluster...You can safely close this window.
```

The set up is complete. You can close all windows.

Note If your CRS system contained MSDE before upgrading, you need to restore MSDE in your system after upgrade to UCCX 7.0(1). Similarly, if your CRS system contained SQL before upgrading, restore SQL in your system after upgrade to UCCX 7.0(1).

Performing the Initial Setup for a Deployment with Cisco Unified CME

When you access Cisco Unified CCX Administration for the first time, the system automatically initiates the initial setup procedure.

If you are deploying Cisco Unified CCX with Cisco Unified CME, perform the setup procedure that is described in this section. You perform this procedure one time to provide information about Cisco Unified CME, license files, and other system parameters.

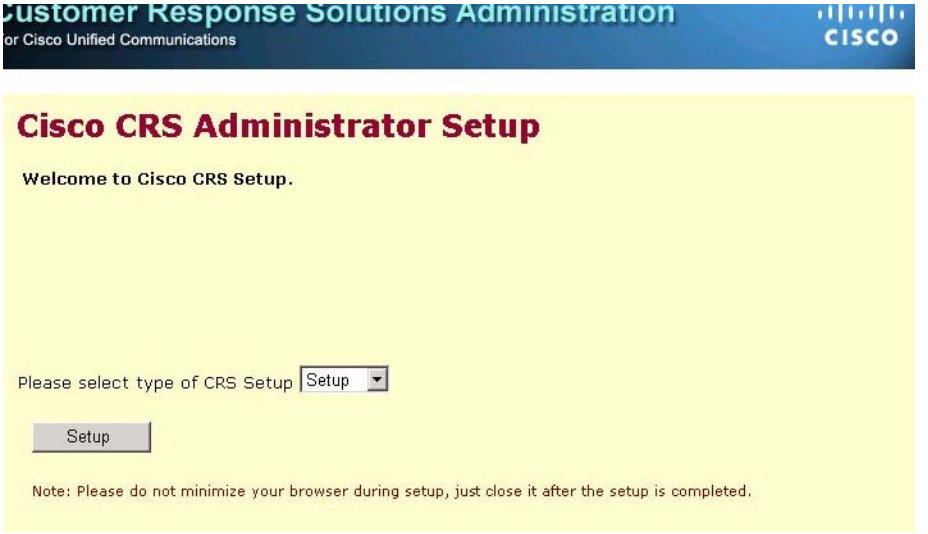
Before you begin the setup procedure, review the information in the Obtaining License Files section in chapter 5.

To perform the initial setup, follow these steps:

Step 1 Access Cisco Unified CCX Administration The Cisco Unified CCX Administrator Setup page displays. In addition, a pop-up window prompts you to disable the CSA before you proceed.

Step 2 Make sure that the CSA is disabled, and click **OK** in the pop-up window.

Figure 11-31 Cisco Unified CCX Administrator Setup Page



Step 3 In the Cisco Unified CCX Administrator Setup page, take these actions:

a. From the Please select type of Cisco Unified CCX Setup drop-down list, choose **Setup**.

b. Click the **Setup** button.

The Cisco Unified CME Configuration page displays.

Figure 11-32 Cisco Unified CME Configuration Page

Step 4 In the Cisco Unified CME Configuration page, take these actions:

a. In the Cisco Unified CME server hostname or IP address field, enter the host name or IP address of the Cisco Unified CME router.

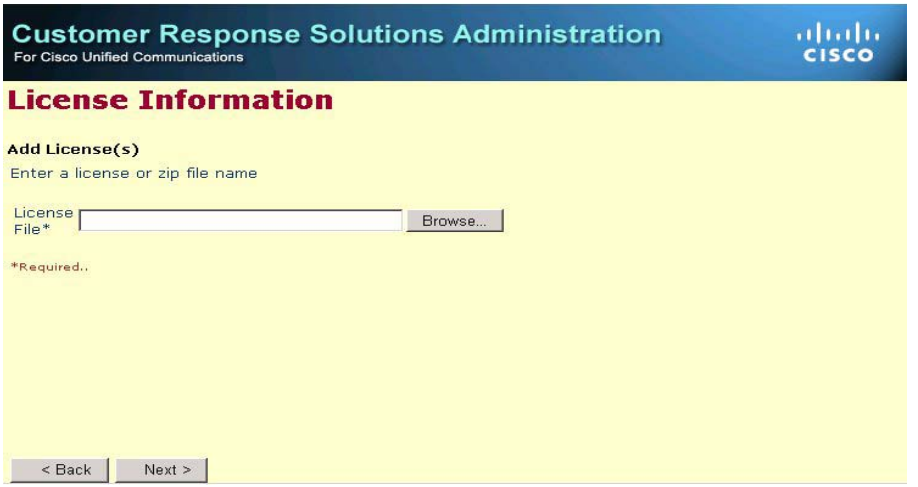
b. In the AXL User ID field, enter the AXL user ID that you created in Cisco Unified CME.

c. In the AXL User Password field, enter the AXL password that you created in Cisco Unified CME.

d. Click **Next**.

The License Information page displays.

Figure 11-33 License Information Page



Step 5 In the License Information page:

a. In the License File field, enter the path and name of a Cisco Unified CCX license file, or of a ZIP file that contains multiple license files.

b. Click **Next**.

The License Information page displays again.

c. Take one of these actions:

- If you wish to enter multiple license files that you have not put into a single ZIP file, enter the path and name of another license file in the License File field and then click **Next**.

  The license information page displays again. Repeat this process until you have entered all license files.

- If you have entered the name of a ZIP file that contains multiple license files or have entered all your license files, leave the License File field blank and click **Next**.

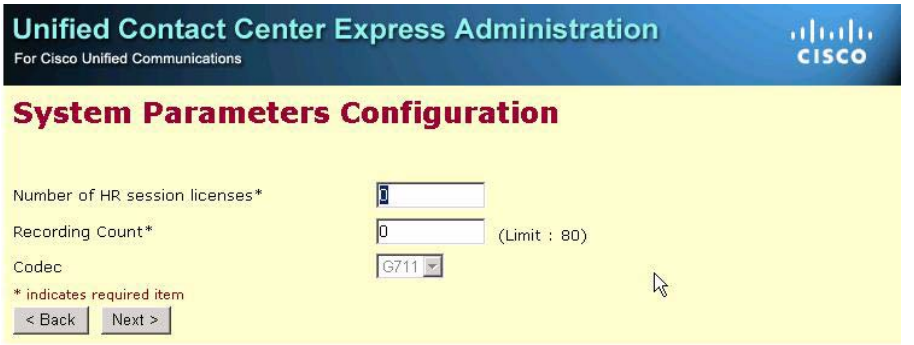
The System Component Activation Completed page displays.

Figure 11-34 System Component Activation Completed Page

Step 6 In the System Component Activation Completed page, click **Next**.

The System Parameters Configuration page displays.

Figure 11-35 System Parameters Configuration Page



Step 7 In the Systems Parameters Configuration page, take these actions:

a. In the Number of HR Session Licenses field, enter the maximum number of Cisco Unified CCX Historical Reporting sessions that you will run simultaneously.

b. In the Recording Count field, enter the maximum number of simultaneous recordings that you will make.

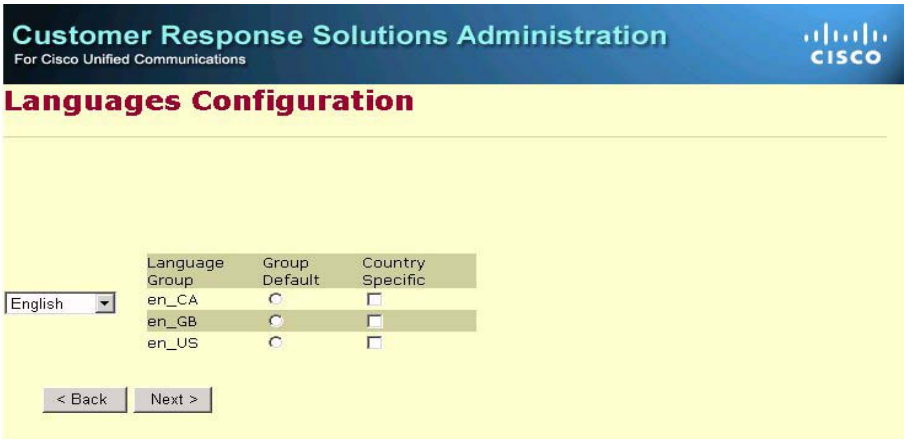
This field displays only if you have a Cisco Unified CCX license.

Note The Codec field does not apply to deployments with Cisco Unified CME.

c. Click **Next**.

The Languages Configuration page displays.

Figure 11-36 Languages Configuration Page



Step 8 In the Languages Configuration page, take these actions:

a. From the drop-down list, choose a language that you want to be available for prompts.

A list of available languages for the language group that you selected displays in the Language Selection area.

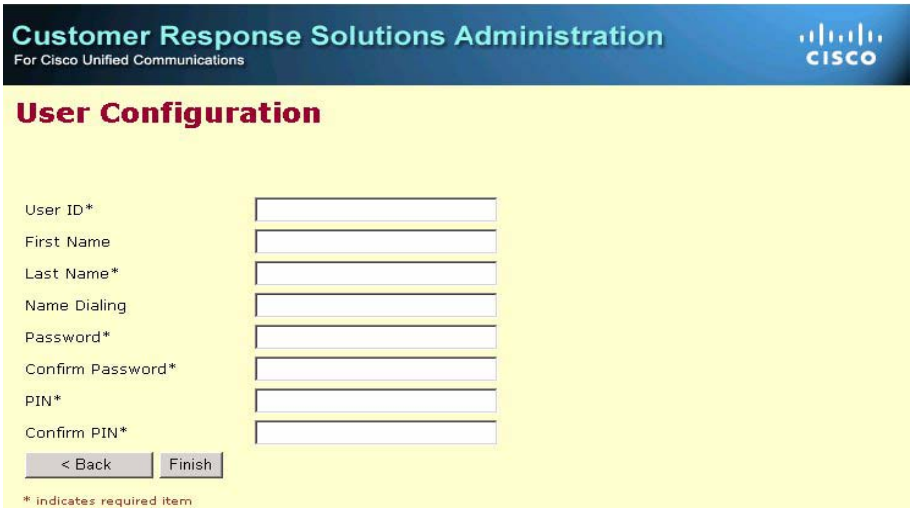
b. If you will create a custom country-specific language, check the **Group Default** check box next to a language to use as a base for your custom country-specific language.

c. Check the **Country Specific** check box for each language to install. A country-specific language includes appropriate rules for dates, times, currency, and so on, for the designated country.

d. Click **Next**.

The User Configuration page displays.

Figure 11-37 User Configuration Page



Step 9 In the User Configuration page, take these actions to create login credentials for a new Cisco Unified CCX Administrator:

a. In the User ID field, enter a user ID for the Cisco Unified CCX Administrator.

b. (Optional) In the First Name field, enter the first name of the user.

c. In the Last Name field, enter the last name of the user.

d. In the Name Dialing field, accept the default entry or enter a new value.

e. In the Password Field, enter a password for the user.

f. In the Confirm Password field, enter the password again.

g. In the PIN field, enter a PIN for the user.

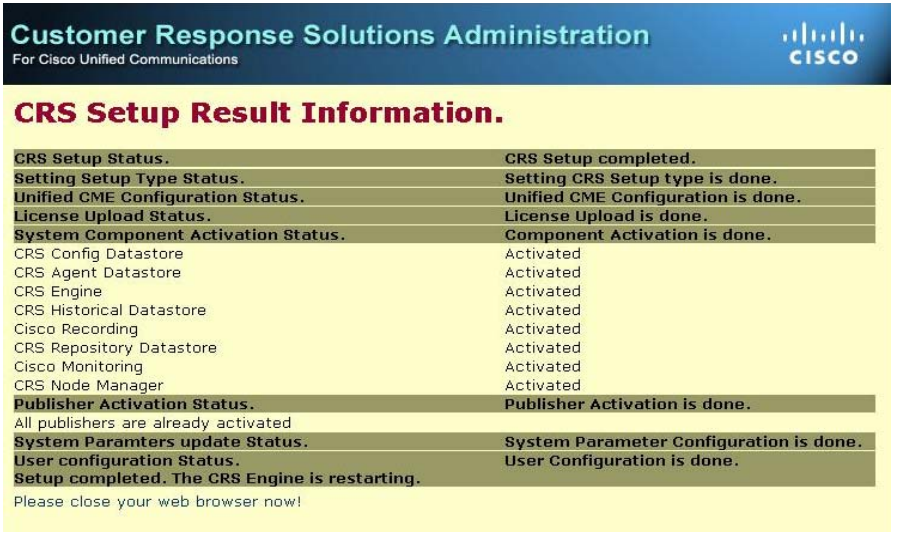
h. In the Confirm PIN field, enter the PIN again.

i. Click **Finish**.

The Cisco Unified CCX Setup Result information displays. This window confirms the results of the initial set up.

Note If Cisco Unified CCX Setup Result Information page includes a warning and suggestion to run the Post Install tool, refer the *Cisco CAD Installation Guide* for detailed information about using this tool.

Figure 11-38 Cisco Unified CCX Setup Result Information Page



Step 10 Close your web browser.

You have completed the initial setup of Cisco Unified CCX. To change the configuration settings that you made or to perform additional configuration activities, refer the *Cisco Unified Contact Center Express Administration Guide*.

CHAPTER 12

Repairing Cisco Unified CCX

This chapter provides instructions for performing the Cisco Unified CCX repair procedure. This procedure reinstalls or repairs missing or corrupted binary files, shortcuts, and registry entries on a server.

Caution When you run a repair procedure, you may loose some or all of the Cisco Unified CCX data that has been generated since the last successful backup.

Performing the Repair Procedure

Step 1 Log into Windows as the Administrator.

Step 2 Insert the Cisco Unified CCX DVD.

If the Cisco Unified Contact Center Express Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CiscoUnifiedCCXAutorun.exe**.

Step 3 Click **OK** in the pop-up window that prompts:

```
The Cisco Unified CCX Installer is about to start. Click OK to
continue.
```

The Cisco Unified CCX Installer performs a series of checks and processes.

After a few moments, the Welcome window is displayed.

Additionally, a pop-up window displays the following message:

```
*Warning* Disable Cisco Security Agent and virus control
software before proceeding. These applications can interfere
with the Cisco Unified CCX Installer procedure that you are
performing and can cause the system to become unrecoverable.
```

Figure 12-1 Welcome Window

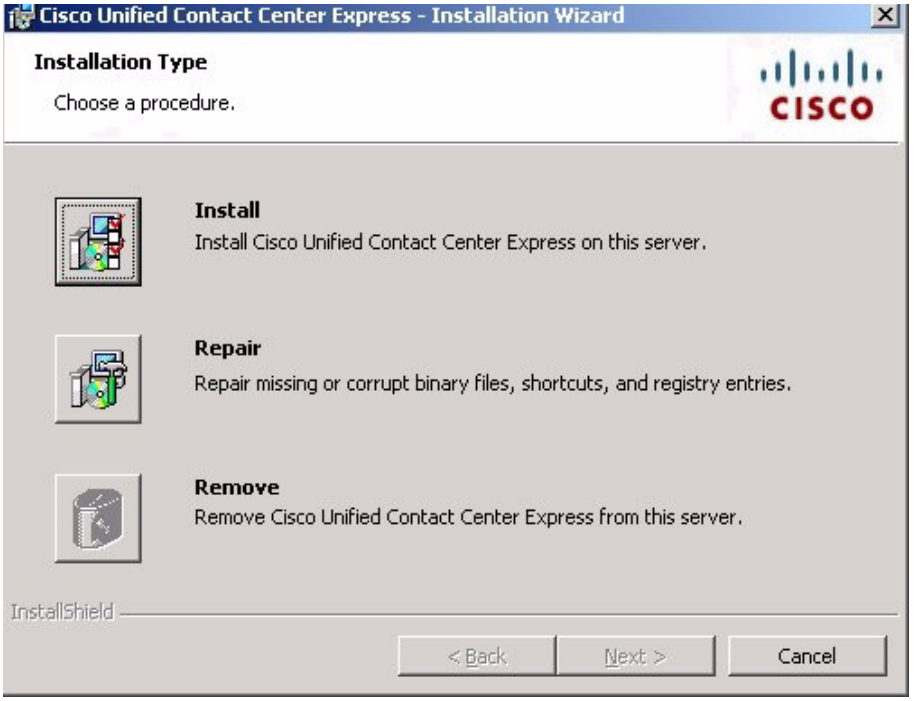
Make sure that all virus control software and CSA are disabled and click **OK** in the pop-up window.

Step 4 In the Welcome window, click **Next**.

It might be a few minutes before **Next** becomes available.

The Installation Type window is displayed.

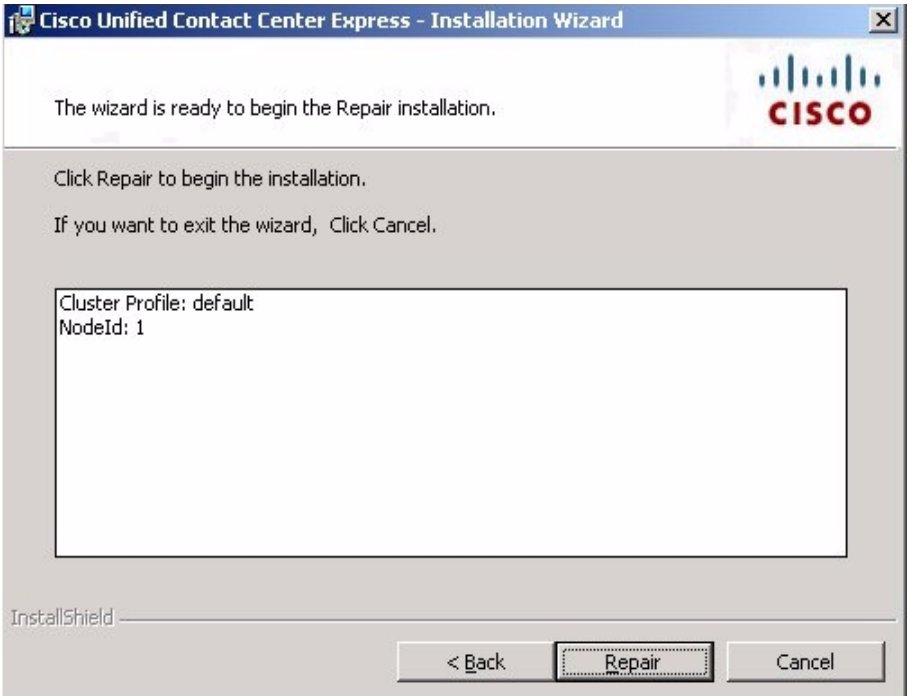
Figure 12-2 Installation Type Window



Step 5 In the Installation Type window, click **Repair**.

A window displays that informs you that the wizard is ready to begin.

Figure 12-3 Installation Type Window

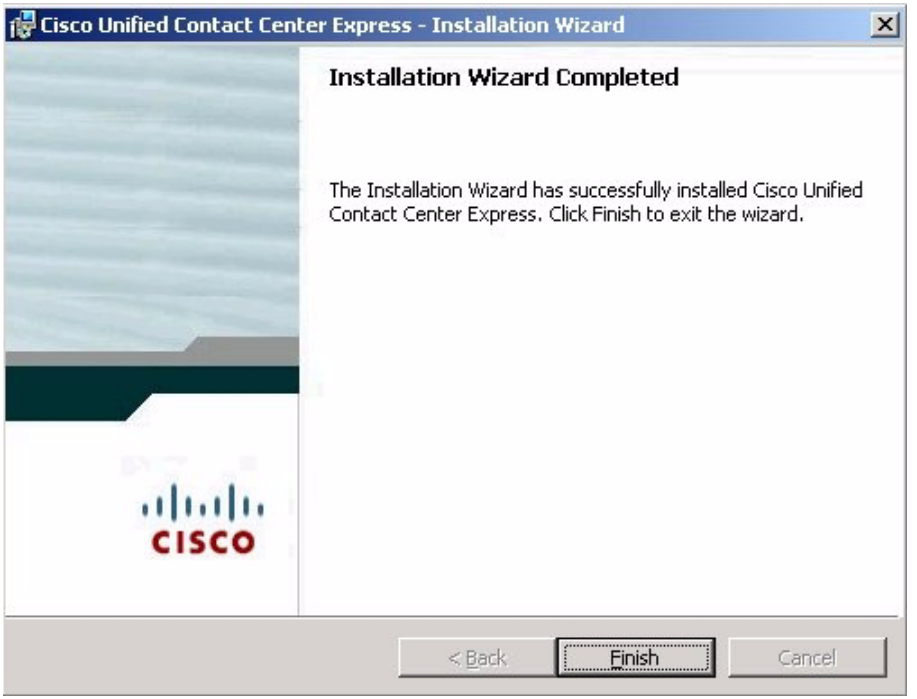


Step 6 Click **Repair**.

The repair process begins. This process includes reinstalling Cisco Unified CCX components. A status window displays the progress.

When the process completes, the Installation Wizard Completed window displays.

Figure 12-4 Installation Wizard Completed Window



Step 7 In the Installation Completed Window, click **Finish**.

A pop-up window prompts you to restart the system.

Step 8 Click **Yes** to restart the system.

After the system restarts, you can start Cisco Unified CCX Administration and ensure that the system is operating properly.

CHAPTER 13

Patching Cisco Unified CCX

Cisco provides patches for Cisco Unified CCX as required. A patch is a software update, such as a service release or an engineering special, that addresses one or more issues in the Cisco Unified CCX software.

This chapter provides instructions for downloading and applying a patch. It also provide instructions for removing a patch from the Cisco Unified CCX server.

For ongoing system management, regularly verify that you have installed the latest Cisco Unified CCX patch.

This chapter includes the following sections:

- Patching Overview, page 13-1
- Obtaining a Patch, page 13-5
- Before You Begin, page 13-5
- Installing or Reinstalling a Patch, page 13-6
- Uninstalling a Patch, page 13-10

Patching Overview

Cisco Systems, Inc. follows a standard naming convention for service releases and engineering specials, as explained in Table 10-1.

Table 13-1 Naming Conventions for Cisco Unified CCX Patches

Convention	Explanation	Example
Naming convention for service releases: *Unified CCX_release*SR*nn*	• *Unified CCX_release*—Cisco Unified CCX base release, which is the version of Cisco Unified CCX with which the service release is compatible • *nn*—Release number of the service release	7.0(1)SR01 Meaning: Service Release 01 for Cisco Unified CCX 7.0(1)
Naming convention for engineering specials: *Unified CCX_release*SR*nn*ES*xx*	• *Unified CCX_release*—Cisco Unified CCX base release, which is the version of Cisco Unified CCX with which the engineering special is compatible • *nn*—Release number of the service release with which the engineering special is compatible • *xx*—Release number of the engineering special	7.0(1)SR02ES01 Meaning: Engineering Special 01 for Service Release 02 for Cisco Unified CCX 7.0(1)

Typically, a service release or an engineering special is compatible with a specific version of Cisco Unified CCX. Table 10-2, describes the guidelines for determining the compatibility of a patch.

Table 13-2 Compatibility Guidelines Cisco Unified CCX Patches

Guideline	Examples
A service release can be applied only to its corresponding Cisco Unified CCX base release **Note** Service releases are cumulative of all the previous service releases. If a service release is uninstalled, Cisco Unified CCX will revert to the base release.	• 7.0(1)SR01 can be applied to Cisco Unified CCX 7.0(1) • 7.0(2)SR01 can be applied to Cisco Unified CCX 7.0(2) • 7.0(2)SR01 cannot be applied to Cisco Unified CCX 7.0(1)
A service release can be applied to its corresponding Cisco Unified CCX base release if a previous service release has been applied, but not if a newer service release has been applied	• 7.0(1)SR02 can be applied if 7.0(1)SR01 has already been applied • 7.0(2)SR02 can be applied if 7.0(2)SR01 has already been applied • 7.0(1)SR02 cannot be applied if 7.0(1)SR03 has already been applied
A service release can be applied if an engineering special has already been installed, but the engineering special will be removed automatically	• 7.0(1)SR02 can be applied if 7.0(1)SR01ES01 is installed, but 7.0(1)SR01ES01 will be uninstalled automatically.
An engineering special can be applied only if its compatible service release has already been applied (with one exception, described in the next row)	• 7.0(1)SR02ES01 can be applied if 7.0(1)SR02 has already been applied • 7.0(2)SR02ES01 can be applied if 7.0(2)SR02 has already been applied • 7.0(1)SR02ES01 cannot be applied directly to Cisco Unified CCX 7.0(1) (you must first apply 7.0(1)SR02)

Table 13-2 Compatibility Guidelines Cisco Unified CCX Patches (continued)

Guideline	Examples
An engineering special that has 00 for its compatible service release can be applied directly to the Cisco Unified CCX base release	• 7.0(1)SR00ES02 can be applied directly to Cisco Unified CCX 7.0(1)
An engineering special can be applied to an older engineering special only if they have the same Cisco Unified CCX base release and service release **Note** The latest engineering special for any version is cumulative of all the previous engineering specials.	• 7.0(1)SR01ES02 can be applied if 7.0(1)SR01ES01 has already been applied • 7.0(1)SR01ES02 cannot be applied if 7.0(1)SR01ES03 has already been applied • 7.0(1)SR02ES02 cannot be applied if 7.0(1)SR01ES01 has already been applied

Obtaining a Patch

Cisco Systems, Inc. makes Cisco Unified CCX patches and associated Read Me files available on line. If you are a registered user, you can download patches as needed.

To download a Cisco Unified CCX patch, follow these steps:

Step 1 Go to this URL:

http://software.cisco.com/download/release.html?mdfid=282126412&softwareid=280840578&release=7.0%281%29_SR5&relind=AVAILABLE&rellifecycle=&reltype=latest

Step 2 Locate and double-click the desired Cisco Unified CCX 7.0(1) patch .exe file, and follow the prompts to download that file.

Step 3 Go back to the URL listed in Step 1, locate and double-click the Read Me file for the desired Cisco Unified CCX 7.0(1) patch and follow the prompts to download that file.

The Read Me file provides important information about the patch.

Before You Begin

Before you install or uninstall a Cisco Unified CCX patch:

Warning **Disable Cisco Security Agent and virus control software before proceeding the patch operation. These applications can interfere with the Cisco CRS patch Installer procedure that you are performing and can cause the system to become unrecoverable.**

- Restart/Reboot the Cisco CRS server on which you want to install the patch.
- Perform a full backup of your Cisco Unified CCX system.

  A backup allows you to recover your data if an unrecoverable error occurs.
- Make sure that a copy of the patch .exe file that you are installing or uninstalling exists on the Cisco Unified CCX Server.

- Log in to the server on which you are performing the procedure as a Windows Administrator

Installing or Reinstalling a Patch

To install a patch for Cisco Unified CCX, perform the following steps. If your Cisco Unified CCX deployment includes a high availability server, perform these steps on the active Cisco Unified CCX server and then perform them on the standby server.

Make sure that you perform the tasks described in the "Before You Begin" section on page 13-5 before you start this procedure.

Step 1 On the server on which you are installing the patch, locate and double-click the patch .exe file.

If you have previously started or completed installation of this patch, the Overwrite Protection dialog box displays. Click **Yes to All** to continue.

The Cisco Unified CCX Patch Installation Wizard starts and a dialog box prompts you to close any open Internet Explorer windows, as shown in Figure 10-2.

Figure 13-1 Warning WIndow

Step 2 Close any Internet Explorer windows that are open, disable CSA and antivirus software, and click **OK**.

The Welcome to the Installation Wizard window displays, as shown in Figure 10-2.

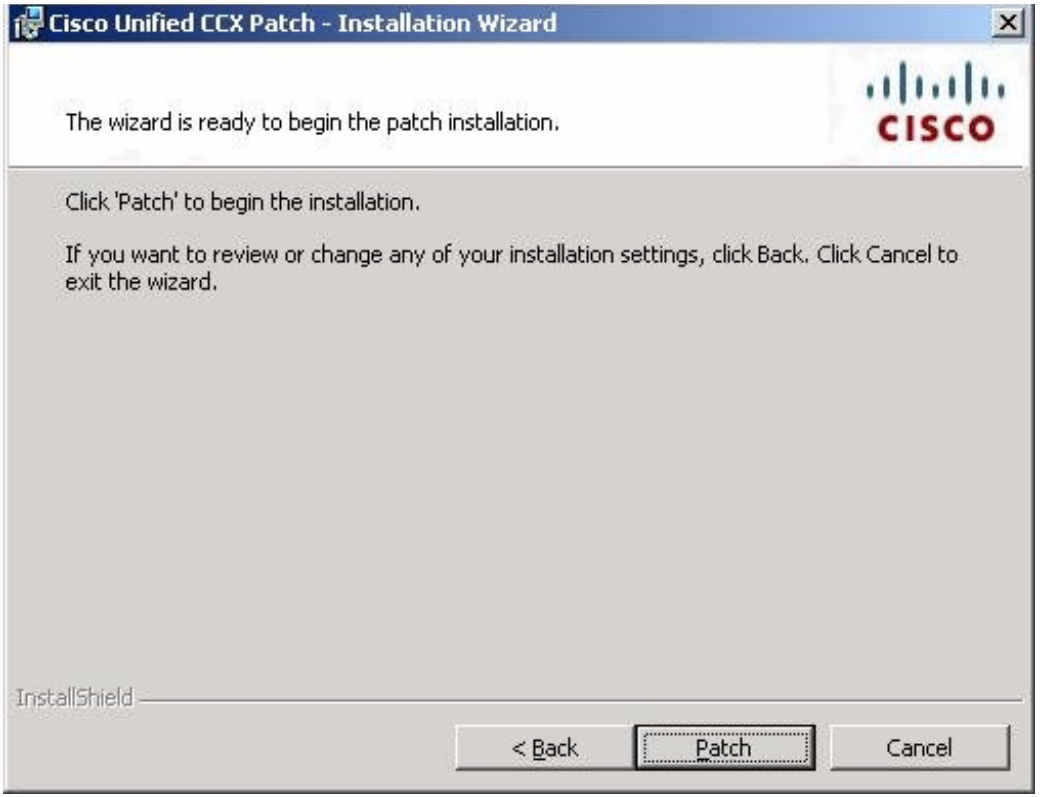
Figure 13-2 Welcome to the Installation Wizard Window

Step 3 In the Welcome to the Installation Wizard window, click **Next**.

If you are reinstalling the patch, the Patch Already Installed window displays. In this case, click **Install**.

The Ready to Begin the Patch Installation window displays, as shown in Figure 10-3.

Figure 13-3 Ready to Begin the Patch Installation Window



Step 4 In the Ready to Begin the Patch Installation window, click **Patch**.

The system begins to install the patch. After a few minutes, the Installing window displays and shows the progress of the installation.

When the patch install completes, the Installation Wizard Completed window displays, as shown in Figure 10-4.

Figure 13-4 Installation Completed Window

Step 5 In the Installation Wizard Completed window, click **Finish**.

A dialog box prompts you to restart the system.

Step 6 Click **Yes** to restart the system.

Uninstalling a Patch

To uninstall a Cisco Unified CCX patch, perform the following steps. If your Cisco Unified CCX deployment includes a high availability server, perform these steps on the active Cisco Unified CCX server and then perform them on the standby server.

Before you start the uninstallation procedure, ensure that you perform the tasks described in the Before You Begin section of this chapter.

Step 1 On the server from which you are uninstalling the patch, locate and double-click the patch .exe file.

Step 2 In the Overwrite Protection dialog box, click **Yes to All**.

The Cisco Unified CCX Patch Installation Wizard starts and a dialog box prompts you to close any open Internet Explorer windows.

Step 3 Close any Internet Explorer windows that are open and click **OK**.

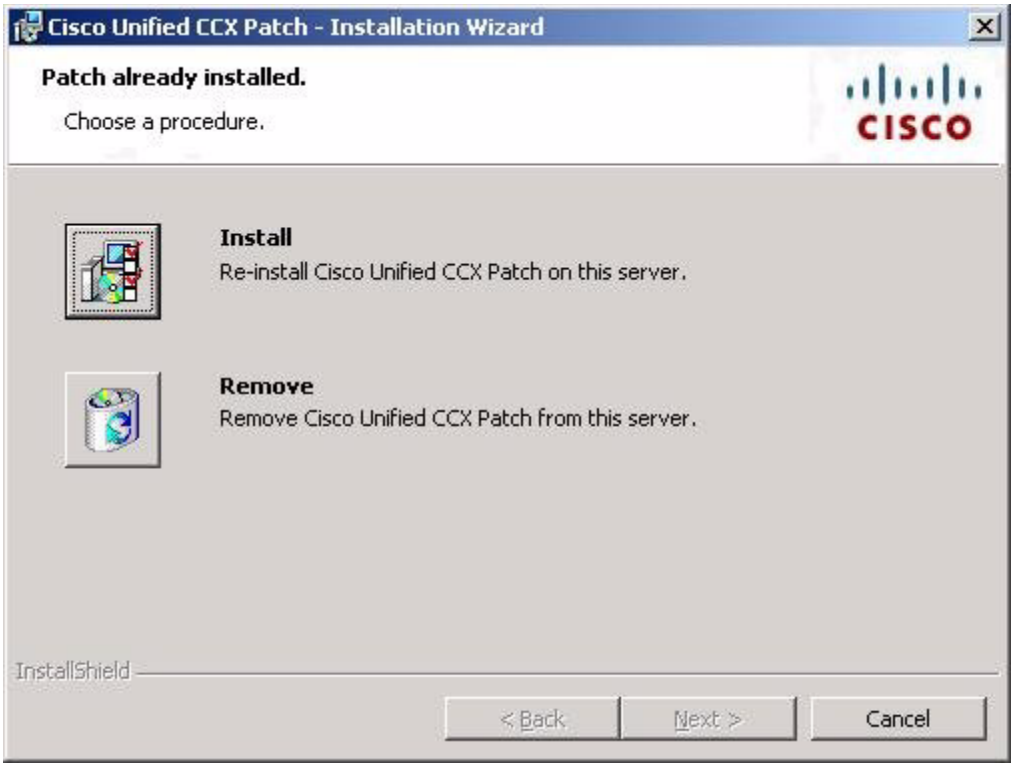
The Welcome to the Installation Wizard window displays, as shown in Figure 10-5.

Figure 13-5 Welcome to the Installation Wizard Window

Step 4 In the Welcome to the Installation Wizard window, click **Next**.

The Patch Already Installed window displays, as shown in Figure 10-6.

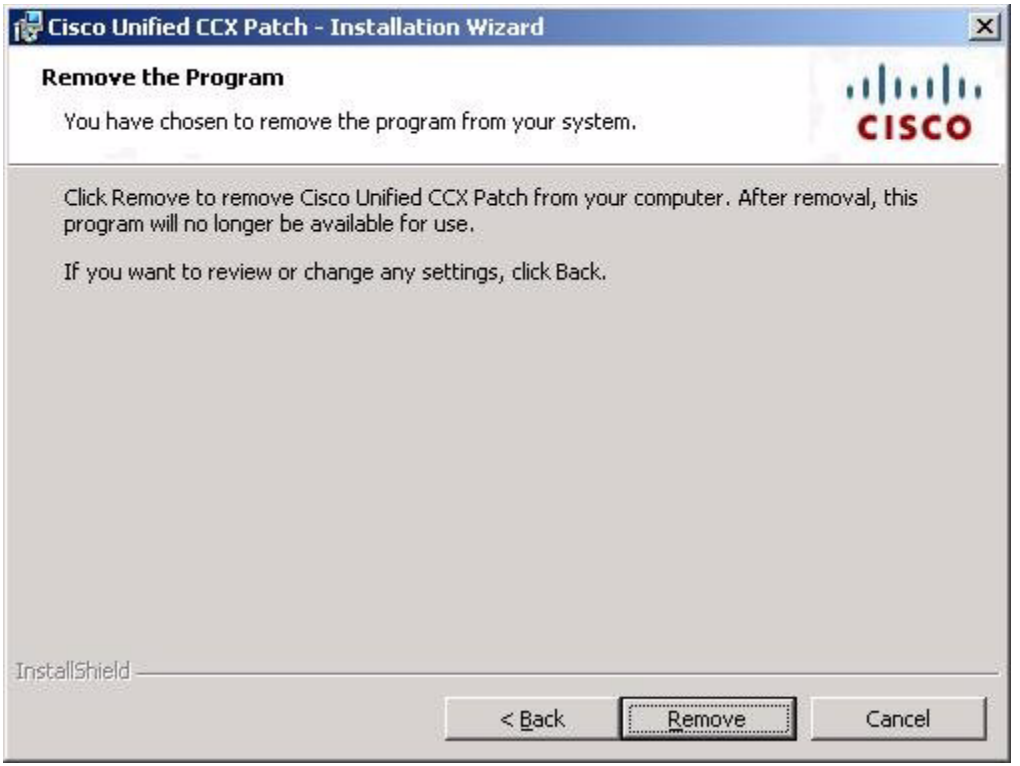
Figure 13-6 Patch Already Installed Window



Step 5 In the Patch Already Installed window, click the **Remove** button.

The Remove the Program window displays, as shown in Figure 10-7.

Figure 13-7 Remove the Program Window

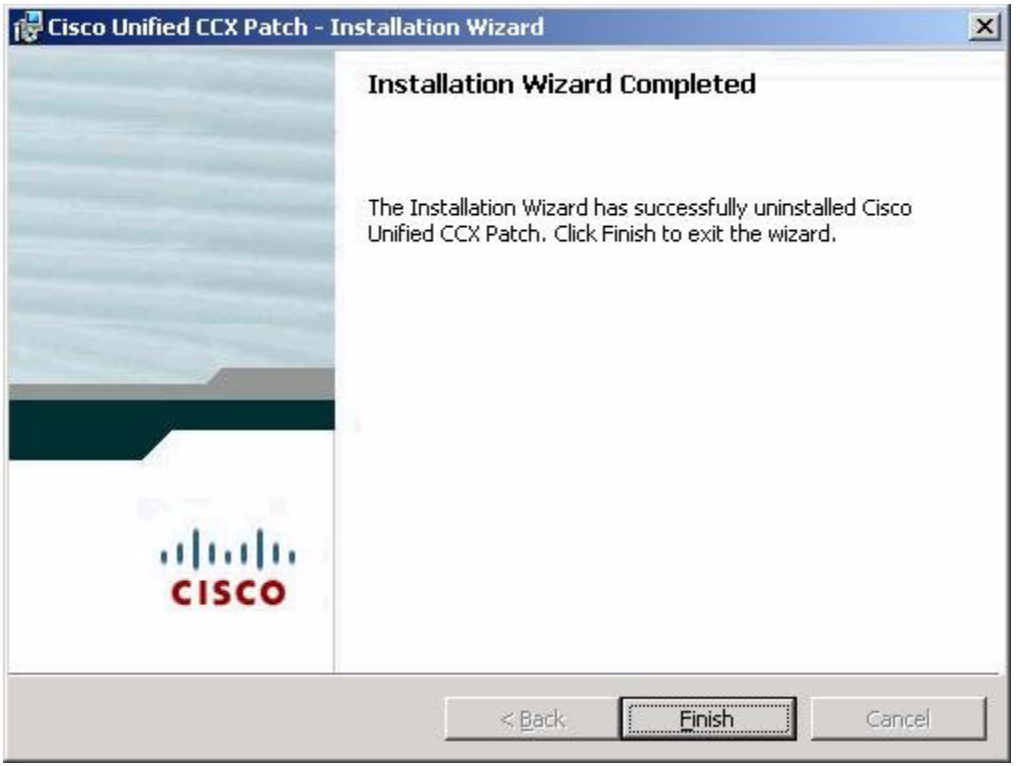


Step 6 In the Remove the Program window, click **Remove**.

The system begins to uninstall the patch. After a few minutes, the Uninstalling window displays and shows the progress of the uninstall.

When the uninstall completes, the Installation Wizard Completed window displays, as shown in Figure 10-8.

Figure 13-8 Installation Wizard Completed Window



Step 7 In the Installation Wizard Completed window, click **Finish**.

A dialog box prompts you to restart the system.

Step 8 Click **Yes** to restart the system.

CHAPTER 14

Changing Your Cisco Unified CCX Deployment

This chapter describes the general procedures you can use to make changes to your Cisco Unified CCX deployment. Changes you can make include adding or removing Cisco Unified CCX software components and replacing a server.

This chapter also provides references to instructions for making other deployment changes, including changing the database type and changing the IP address of a server.

For more detailed information about the software components and servers that can make up a Cisco Unified CCX deployment, see **Chapter 2**.

Before you change a Cisco Unified CCX deployment, back up your Cisco Unified CCX system. Also, by performing a deployment changes at off-peak hours, you can minimize the affect on your business operations.

Note Upgrading Cisco Unified CCX is not supported if you are changing the deployment type. For example, upgrading from CRS 5.0(x) with Cisco Unified CM to Cisco Unified CCX 7.0(1) with Cisco Unified CME, and vice-versa is not supported

Replacing a Cisco Unified CCX Server

If you need to replace a Cisco Unified CCX server, perform the following procedures:

	Procedure	Reference
Step 1	Make sure that the new server is an approved server	See the "Server Requirements" section on page 3-2
Step 2	If you are replacing a server that is a datastore publisher in a two-node deployment, activate the subscriber server as the publisher	Refer the *Cisco Unified Contact Center Express Administration Guide*.
Step 3	Back up your Cisco Unified CCX data	Refer the documentation for your backup and restore system
Step 4	Remove the server that you are replacing from the cluster.	Refer the *Cisco Unified Contact Center Express Administration Guide*.
Step 5	Disconnect the server from the network	—
Step 6	Install the Cisco-provided Windows 2003 Server operating system on the new server	See the "Installing the Required Operating System" section on page 3-5
Step 7	Connect the new server to the network	See the "Connecting a Server to the Network" section on page 3-6.
Step 8	Configure the new server with the same host name and IP address as the server that you are replacing	Refer your Windows network documentation.
Step 9	Install Cisco Unified CCX	See Chapter 4, "Installing Cisco Unified CCX"
Step 10	If you are replacing a server in a two-node deployment, add the server to the cluster.	Refer the *Cisco Unified Contact Center Express Administration Guide*.
Step 11	Perform the restore procedure on the new server	See Chapter 12, "Repairing Cisco Unified CCX"

Changing Other Deployment Settings

The following table provides references to instructions for deployment changes that you may make and that are not mentioned elsewhere in this chapter:

Activity	Reference
Adding or removing third-party automatic speech recognition (ASR) and text-to-speech (TTS) applications.	Refer the *Cisco Unified Contact Center Express Administration Guide*.
Changing IP address of a server.	Refer the *Cisco Unified Contact Center Express Administration Guide*.
Changing the language for the Cisco Agent Desktop or the Cisco Supervisor Desktop	See Chapter 4, "Installing Cisco Unified CCX."
Changing a deployment from Cisco Unified CM to Cisco Unified CME	See Chapter 4, "Installing Cisco Unified CCX."
Changing a deployment from Cisco Unified CME to Cisco Unified CM	See Chapter 4, "Installing Cisco Unified CCX."
Upgrading database type from MSDE 2000 to MS SQL Server 2000. **Note** User data that is stored in the Cisco Unified CCX database is preserved when you upgrade the database type.	Refer the *MS SQL Server 2000 for Cisco Unified Contact Center Express Resources Card*.

Changing Deployment Type of Unified CCX 7.0(1) from SA to HA

Perform the following steps to change the Unified CCX 7.0(1) deployment settings from SA to HA:

Step 1 Procure the High Availability (warm standby) license from Cisco for the Unified CCX 7.0(1). See the section"Standby Server" section on page 2-2 and "Guidelines for Deploying High Availability" section on page 2-3 for more information.

Step 2 Log in to the Unified CCX Administration web page of the first node and upload the procured warm standby license for HA.

Step 3 Select a machine for your second node, and install the Cisco-provided Windows 2003 Server Operating System on the server. For a list of supported server models for Unified CCX HA setup, refer to the Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR: http://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_device_support_tables_list.html

Step 4 Install Unified CCX 7.0(1) on the standby server (second node). See Chapter 4, "Installing Cisco Unified CCX" for instructions on how to install the Unified CCX software.

Step 5 Install MS SQL Server 2000.

Step 6 Perform "Add to Cluster" operation. For more information, see the "Upgrading from CRS 4.5(x) standalone deployment to Cisco Unified CCX 7.0(1) high availability deployment" section on page 7-14.

Saving Recording Files When You Change a Deployment

Some changes to a Cisco Unified CCX deployment require you to uninstall Cisco Unified CCX from a server on which you have installed the Recording component. In this case, save your recording files before you uninstall Cisco Unified CCX. For instructions, refer the *CAD Installation Guide, IP Contact Center Express Edition 6.2(0)*.

CHAPTER 15

Cisco Unified CCX Installer Messages and Log Files

This chapter provides information about error messages and instructional messages that may appear when you run the Cisco Unified CCX Installer. If you receive such a message, you can locate it in this chapter to determine its cause and the actions you can take to continue.

This chapter also describes the log files that record Cisco Unified CCX Installer messages.

Cisco Unified CCX Installer Messages

This section describes the messages that the Cisco Unified CCX Installer may display, the cause of each message, and actions that you can take to continue.

`A fatal error occurred during the database installation of product. Installation will now abort.`

Explanation An internal error occurred during installation of MSDE 2000.

Recommended Action Contact your service provider.

`A fatal error occurred during the initialization of product. Installation will now abort.`

Explanation An internal system error occurred.

Recommended Action Contact your service provider.

`A fatal error occurred during the JRE installation of product. Installation will now abort.`

Explanation The Cisco Unified CCX Installer is not able to install JRE.

Recommended Action Reboot the server, then run the procedure again.

`A minimum of 2,048 MB of RAM is required for product. Installation will now abort.`

Explanation You are attempting to install on a server that has less than 2,048 MB of RAM.

Recommended Action Upgrade the RAM to at least 2,048 MB and run the installation again.

`A newer version of product is already installed on this server. Installation will now abort.`

Explanation You are attempting to install a release of a product that is older than the release currently installed.

Recommended Action Obtain a newer release of the product.

`A previous installation has not completed. Please reboot this server and then rerun the installation.`

Explanation You have installed another Cisco product or another third-party product, but have not rebooted the server.

Recommended Action Reboot the server.

`Administrative privileges are required to install product. Please log in as an administrator and then rerun the installation.`

Explanation You are not logged in to the server as an administrator.

Recommended Action Log in as an administrator.

`An error occurred while Datastores were being configured. Contact Technical Support.`

Explanation An error occurred during the configuration of the Cisco Unified CCX datastore.

Recommended Action Contact your service provider.

`Cisco Unified Contact Center Express installation was unable to stop the World Wide Web Publishing Service (W3SVC). Installation will now abort.`

Explanation The Cisco Unified CCX Installer is unable to stop the World Wide Web Publishing Service.

Recommended Action Make sure that the World Wide Web Publishing Service is operating properly. If this service is running properly, close and browser windows that are open and then retry the operation. If this action does not resolve the problem continues, contact your service provider.

`Computer hardware provided by` *`manufacturer`* `is required to install` *`product`*`. Installation will now abort.`

Explanation You are running the Cisco Unified CCX Installer on a computer that is not supported.

Recommended Action Make sure that you are running the Cisco Unified CCX Installer on an approved server. For more information, see the "Server Requirements" section on page 3-2.

`Cisco Unified CCX is already installed but repair/upgrade is not possible since some data are missing. Do you want to go for fresh install of Cisco Unified CCX?`

Explanation You are attempting to perform a a procedure on a server that has corrupt bootstrap data.

Recommended Action Reinstall Cisco Unified CCX.

`Installation of Product cannot be performed without a user interface or silently. Please run the installation program using the full user interface. Installation will now abort.`

Explanation You are attempting to perform a silent installation of Cisco Unified CCX.

Recommended Action Install Cisco Unified CCX using the full user interface.

`Installation of product cannot be run using Terminal Services. Installation will now abort.`

Explanation You are attempting to run the Cisco Unified CCX Installer through Terminal Services.

Recommended Action Run the Cisco Unified CCX Installer directly on a server.

`One of the Publisher Datastore on this Server is corrupted. Use Backup/Restore tool to recover this server.`

Explanation The Publisher datastore is corrupted.

Recommended Action Restore a good backup of Cisco Unified CCX and then run the procedure again.

`One or more of the Databases on this server is full. Use purging tool to create some space and retry again.`

Explanation You are performing a recover or repair procedure and a Cisco Unified CCX database has reached its capacity.

Recommended Action Use the Cisco Unified CCX Administration Purge feature tool to free space in the database, then run the procedure that you were performing again. For information about purging databases, refer the *Cisco Unified Contact Center Express Administration Guide*.

```
Please disable or stop virus control software before proceeding
because it may interfere with the installation of Cisco Unified
CCX.
```

Explanation Reminder to disable or stop virus scanning before running the Cisco Unified CCX Installer.

Recommended Action Disable or stop virus scanning and the CSA before starting the Cisco Unified CCX Installer. For more information, see the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-13.

```
Please move the server from the domain to a local workgroup and
reboot the server before you begin the installation.
Installation will now abort.
```

Explanation You are installing Cisco Unified CCX on a server that is in a domain.

Recommended Action Remove the server from the domain, then run the procedure again.

```
Please re-image the OS and rerun the Cisco Unified CCX
Installer.
```

Explanation The operating system must be re-imaged for the procedure that you are performing with the Cisco Unified CCX Installer to successfully complete.

Recommended Action Re-image the operating system, then run the procedure again.

```
Please upgrade to SQL2k. Then rerun the Cisco Unified CCX 7.0
Installer.
```

Explanation The server requires that MS SQL Server 2000 be installed.

Recommended Action Install MS SQL Server 2000 or upgrade to SQL2K on the Cisco Unified CCX server and reboot that server, then run the procedure again

```
Setup has detected existing Cisco Unified CCX databases. Do you
want to remove these databases? If you choose No, the existing
databases and database configuration information will be
retained. If you choose Yes, make sure that you have a current
and reliable backup of your data before proceeding. Remove the
databases? Yes or No
```

Explanation You are installing Cisco Unified CCX and there are Cisco Unified CCX databases on the server.

Recommended Action If you want to delete the databases without saving this information click **Yes**. If you want to retain the databases, click **No.**

```
The cluster profile that you entered is in use. Please enter a
unique name for the cluster profile.
```

Explanation You entered an existing cluster profile name.

Recommended Action Enter a unique cluster profile name.

`The following host names could not be resolved: hostnames. Installation will now abort.`

Explanation The host name that you entered cannot be resolved to its IP address, or the IP address that you entered cannot be resolved to its host name.

Recommended Action Check the Domain Source Name System (DSN) to ensure that the host names and IP addresses can be resolved.

`The installation program has detected that Cisco Unified CCX Editor is currently running. Please save your changes now and click OK. The installation program will close Cisco Unified CCX Editor and unsaved changes will be lost.`

Explanation The Cisco Unified CCX Editor is running.

Recommended Action Click **OK** and try the procedure again. If you want to save changes that you made in the Cisco Unified CCX Editor, do so before you click **OK**.

`The installation program has detected that SQL2K is installed on this computer but that it was not installed using the installation disk provided by Cisco.`

Explanation MS SQL Server 2000 is installed on this server, but it was not installed by using the Cisco-provided MS SQL Server 2000 installation disk.

Recommended Action .Contact your service provider.

```
The Installer has determined that not enough disk space exists
to continue, please clean up the disk as much as possible and
run the Installer again. Installation will now abort.
```

Explanation The server not have the minimum disk space required to install Cisco Unified CCX.

Recommended Action Free up disk sufficient disk space on the server and then run the procedure again. For information about disk usage, see the "Cisco Unified CCX Disk Space Usage" section on page 3-12.

```
The Internet services (IISADMIN and World Wide Web) are not
currently running. Install will continue.
```

Explanation The Windows IISADMIN Service and the Windows World Wide Web Service are not running on this server.

Recommended Action Make sure that these services are working properly. If they are running properly, perform the Cisco Unified CCX recover procedure on this server.

```
Windows 2003 Server with Service Pack 1 or higher is required
to install product. Installation will now abort.
```

Explanation You are running the Cisco Unified CCX Installer on a server on which Windows 2003 Server with Service Pack 1 or higher is not installed.

Recommended Action Install the current version of the Cisco-provided Windows 2003 Server operating system and service pack. For more information, see the "Installing the Required Operating System" section on page 3-5.

```
Cisco Security Agent is not disabled. Please disable CSA and
proceed with the installation. Installation will now abort.
```

Explanation CSA not disabled.

Recommended Action Disable the CSA.

Cisco Unified CCX Installer Log Files

Cisco Unified CCX creates log files for every procedure that you perform with the Cisco Unified CCX Installer. These files include messages that the Cisco Unified CCX Installer generates. If necessary, you can provide the log files to your service provider for assistance with troubleshooting.

The following log files are stored in the Windows root directory on the server on which you perform a procedure:

- CalInstall.log
- CiscoUnifiedCCXMsiInstallLog.txt
- CiscoUnifiedCCXMsdeInstallLog.txt
- CiscoUnifiedCCXAutorun.log
- UpdateTool.log
- SQLInstallLog.txt

- CiscoUnifiedCCXJREInstallLog.txt
- C:\Documents and Settings\Administrator\Local Settings\Temp\UnifiedCCXInstallation\logsFromLastRun\UnifiedccxInstallLog_*.zip

INDEX

A

activate, components 2-2

applications

- guidelines for implementing 3-14
- using with Cisco Unified CCX 3-14

automatic speech recognition (ASR) 3-15, 3-16, 14-3

B

binary file, recovering corrupted 12-1

binding order, for network interface card (NIC) 3-9, 7-5

browser 3-3

C

CalInstall.log 15-10

Cisco Agent Desktop (CAD), using with Cisco Unified CCX 3-16

Cisco Product Upgrade Tool (PUT) 3-18

Cisco Security Agent (CSA)

- using with Cisco Unified CCX 3-17

Cisco Supervisor Desktop (CSD), using with Cisco Unified CCX 3-16

Cisco Unified CCX

- activate components 2-2
- cluster
  - *See* cluster
- components
  - *See* components, of Cisco Unified CCX
- configuring 3-14
- databases 2-4, 3-12
- description 1-1
- disks, obtaining 3-18
- installation
  - guidelines 4-1
  - overview 1-1
  - procedure 4-2
- license file 3-9
- operating system required 3-5
- patching
  - description 13-1
  - guidelines 13-3
  - procedure 13-6
- re-image procedure for backup 7-2
- repairing 12-1

uninstalling 3-18

upgrade

overview 7-1, 8-1, 9-1

Cisco Unified CCX Administration

accessing 11-3

administrator 11-14, 11-27

CiscoUnifiedCCXAutorun.log 15-10

Cisco Unified CCX Editor 3-15, 3-16

Cisco Unified CCX Engine 2-2

Cisco Unified CCX Historical Reporting. 3-17

Cisco Unified CCX Installer

log files 15-10

messages 15-1 to 15-10

overview 1-1

starting 1-1

CiscoUnifiedCCXJREInstallLog.txt 15-11

CiscoUnifiedCCXMsdeInstallLog.txt 15-10

CiscoUnifiedCCXMsiInstallLog.txt 15-10

Cisco Unified CCX Node Manager 11-21, 11-33

Cisco Unified CM

deploying with Cisco Unified CCX 2-1

installing 3-3

supported release 3-3, 7-5

upgrading 7-5

Cisco Unified CME, deploying with Cisco Unified CCX 2-1

Cisco Unified Communications Gateway 2-5

Cisco Unified Communications Manager

See Unified CM

Cisco Unified Communications Manager Express

See Unified CME

Cisco Unified Contact Center Express 1-1

Cisco Unified IP IVR 1-1

client system 3-2

cluster, description 2-5

components, of Cisco Unified CCX

Cisco Unified CCX Engine 2-2

Database 2-2

description 2-2

Monitoring 2-2

Recording 2-2

configuring, Cisco Unified CCX 3-14

connectivity, verifying 3-7, 7-3

Creating New Cisco Unified CM Users 11-36

D

database

changing type 3-12, 14-3

db_cra 2-4, 3-12

db_cra_repository 2-4, 3-12

disk space usage 3-12

FCRasSvr 2-4, 3-13

MSDE 2000 2-5, 3-12

MS SQL Server 2000 2-5

overview 2-5, 3-12

upgrading 14-3

Database component 2-2

db_cra 2-4, 3-12
db_cra_repository 2-4, 3-12
deployment, changing 14-3
deployment, of Cisco Unified CCX
  changing 14-1
  with Cisco Unified CCX Gateway 2-5
disk size, for server 3-2
documentation, related 2-iii
duplex setting, verifying 3-7

E

engineering special 13-2, 13-3
error messages 15-1, 15-1 to 15-10

F

FCRasSvr 2-4

H

hardware setting, verifying 3-6
high availability 2-2
  See also standby server

I

initial setup
  changing information 11-1
  for Cisco Unified CME deployment 11-45
  for single node Cisco Unified CM deployment 11-5
  for two node Cisco Unified CM deployment 11-16, 11-29
  overview 11-1
  restore 11-36
Installer
  Cisco Unified CCX 1-1
installing
  changing information 4-1
  Cisco applications 3-14
  Cisco Unified CCX
    guidelines 4-1
    overview 1-1
    procedure 4-2
  Cisco Unified CM 3-3
  operating system for Cisco Unified CCX 3-5
  third-party applications 3-14
  Windows 2003 3-5
Integrated Lights Out 3-18
IP address, changing 14-3

L

language
  country specific 11-13, 11-26, 11-50
  for prompts 11-13, 11-26, 11-50
  group default 11-13, 11-26, 11-50

language, changing for CAD or CSD 14-3
License Consumption 3-10
CAD/CSD Logins 3-11
HRC sessions 3-12
Recording sessions/playback viewer 3-12
license file
description 3-9
obtaining 3-9
specifying 11-8, 11-19, 11-48
ZIP file for 3-10
See also PAK
Locate 13-5
log files 15-10

M

McAfee anti-virus software 3-17
memory, for server 3-2
messages, Cisco Unified CCX Installer 15-1, 15-1 to 15-10
Microsoft Active Directory, restrictions 3-18
Microsoft Internet Explorer 3-3
Microsoft SQL Server 2000
about 3-12
installing 3-12
Monitoring component 2-2
MSDE 2000
about 3-12
MSDE 2000, about 2-5
MS SQL Server 2000 2-5

N

network
verifying connectivity 3-7, 7-3
network, connecting to 3-6
network interface card (NIC)
binding order 3-9, 7-5
connecting 3-6, 7-2
teaming 3-6
node 2-5
See also server

O

operating system
for client system 3-3
for server 3-2
hotfixes 3-5
installing for Cisco Unified CCX 3-5
patches 3-5
SID 3-5
Windows 2000 Professional 3-3
Windows 2000 Server 3-2, 3-5
Windows XP Professional 3-3

P

PAK (Product Activation Key)
description 3-9

locating 3-9
registering 3-9
patch
Cisco Unified CM 3-4, 7-5
description 13-1
downloading 13-5
engineering special 13-2, 13-3
guidelines for installing 13-3
installing 13-6
naming conventions 13-2
obtaining 13-5
operating system 3-5
removing 13-10
service release 13-2, 13-4
uninstalling 13-10
patching
Cisco Unified CCX 13-1
guidelines 13-3
procedure 13-6
See also patch
peripheral gateway
See Unified Communications Gateway
Preview Outbound Configuration 8-13
Product Activation Key
See PAK

R

Recording component 2-2
recording files, saving 14-4
related documentation 2-iii
removing
patch 13-10
repairing, Cisco Unified CCX 12-1
replacing, server 14-2

S

server
client 3-2
connecting to network 3-6
performance 3-3
replacing 14-2
requirements for Cisco Unified CCX 3-2
standby
description 2-2
designating 2-3
service release 13-2, 13-4
SID, requirements for Cisco Unified CCX cluster 3-5
software components, of Cisco Unified CCX
See components, of Cisco Unified CCX
speed setting, verifying 3-7
SQLInstallLog.txt 15-10
standby server
description 2-2
designating 2-3
See also high availability

T

Terminal Services 3-18
text-to-speech (TTS) 3-15, 3-16, 14-3

U

UnifiedccxInstallLog_*.zip 15-11
uninstalling
    Cisco Unified CCX 3-18
    patch 13-10
UpdateTool.log 15-10
Upgrade CRS 5.0(1) to Cisco Unified CCX 7.0(1) 8-2
upgrading
    Cisco Unified CM 7-5
upgrading Cisco Unified CCX
    re-image procedure for backup 7-2
Upgrading HA node from 5.0(x) to 7.0(1) 8-6
Using the License Conversion Tool 9-3

V

Virtual Network Computing 3-18
virus scanning
    for Cisco Unified CCX 3-17

W

Windows 2000 Professional 3-3
Windows 2000 Server 3-2
Windows XP Professional 3-3