Cisco Customer Response Solutions Installation Guide

Cisco Unified Contact Center Express and Cisco Unified IP IVR Release 5.0(2)

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Cisco Customer Response Solutions Installation Guide

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Preface

Overview

Cisco Customer Response Solutions Installation Guide provides instructions and related information for installing, reinstalling, uninstalling, repairing, and patching Cisco Customer Response Solutions (CRS) 5.0(2), and for performing initial setup tasks.

Audience

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

Organization

This manual is organized as follows:

Chapter 1, “Overview”	Explains activities that you can perform with the CRS Installer, and describes the general steps for the CRS installation and upgrade procedures
Chapter 2, “CRS Deployment Options”	Provides overviews and guidelines for the components and servers that can make up a CRS deployment
Chapter 3, “Installation Requirements, Prerequisites, and Related Procedures”	Provides information that relates to installation and upgrade procedures
Chapter 4, “Installing CRS”	Provides instructions for installing the CRS software on a server
Chapter 5, “Upgrading CRS 4.5(x) to CRS 5.0(2)”	Describes how to upgrade from CRS 4.5(x) to CRS 5.0(2)
Chapter 6, “Upgrading CRS 5.0(1) to CRS 5.0(2)”	Describes how to upgrade from CRS 5.0(1) to CRS 5.0(2)
Chapter 7, “Performing the Initial Setup of CRS”	Explains how to access CRS Administration and how to use the cluster setup and server setup procedures
Chapter 8, “Repairing CRS”	Provides instructions for recovering CRS on a server, and for recovering a CRS cluster
Chapter 9, “Patching CRS”	Provides instruction for installing service releases and other software patches to CRS
Chapter 10, “Changing Your CRS Deployment”	Provides guidelines and general procedures for making changes to a CRS deployment
Chapter 11, “CRS Installer Messages and Log Files”	Describes error and other messages that the CRS Installer may display

Related Documentation

Related CRS 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 Customer Response Solutions (CRS) provides a single, consistent, and easy-to-manage platform for the following products:

- Cisco Unified Contact Center Express (Unified CCX)
- Cisco Unified IP IVR (Unified IP IVR)

This chapter describes the CRS Installer, which you use to install or repair CRS.

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

This chapter includes the following sections:

- CRS Installer, page 1-1
- CRS Installation Overview, page 1-2
- CRS Upgrade Overview, page 1-3

CRS Installer

The CRS Installer starts automatically when you put the CRS DVD into a server. You use the Installer to install or repair CRS.

CRS Installation Overview

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

CRS Upgrade Overview

Table 1-1 Overview of CRS Installation Procedures

	Procedure	Reference
Step 1	Review the CRS deployment guidelines.	See Chapter 2, "CRS Deployment Options."
Step 2	Make sure that you are installing on an approved server, which meets the requirements for Cisco CRS.	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 CRS purchase and obtain your license files.	See the "Obtaining License Files" section on page 3-8.
Step 5	Install and configure Cisco Unified Communications Manager (Unified CM) or Cisco Unified Communications Manager Express (Unified CME) (if needed), and make sure that one of these applications is running.	See the "Installing 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 3-4.
Step 7	Connect the server on which you are installing to the network.	See the "Connecting a Server to the Network" section on page 3-5.
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 3-15.
Step 10	Disable virus scanning and the Cisco Security Agent on the server on which you are installing (if applicable).	See the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-11.
Step 11	Perform the CRS installation procedure.	See Chapter 4, "Installing CRS."
Step 12	Access CRS Administration and perform the initial setup procedure.	See Chapter 7, "Performing the Initial Setup of CRS."
Step 13	Install the current CRS patch (if applicable).	See Chapter 9, "Patching CRS."

Table 1-1 Overview of CRS Installation Procedures (continued)

	Procedure	Reference
Step 14	Configure CRS (as needed).	See the "Configuring CRS" section on page 3-11.
Step 15	Install and configure other applications that you will use with CRS (as needed).	See the "Implementing Additional Applications" section on page 3-12.

You can upgrade from CRS 4.5(x) to CRS 5.0(1) and from CRS 5.0(1) to CRS 5.0(2). To do so, you perform a series of procedures in sequence. Table 1-2 lists these procedures and provides references to more information about each one. Depending on your upgrade, you may not need to perform every one of these procedures.

Table 1-2 Overview of CRS Upgrade Procedures

	Procedure	Reference
Step 1	Review the CRS deployment guidelines	See Chapter 2, "CRS Deployment Options."
Step 2	Make sure that you are upgrading on an approved server, which meets the requirements for Cisco CRS.	See the "Server Requirements" section on page 3-2.
Step 3	Review the guidelines for ensuring that the server on which you are upgrading operates most efficiently.	See the "Server Performance" section on page 3-3.
Step 4	Run the 5.0 License Validator to verify that you have the correct upgrade license file.	See the "Using the 5.0(2) License Validator" section on page 5-2.
Step 5	Back up your CRS Data	Refer to the documentation for your backup and restore system.
Step 6	Upgrade and configure Unified CM and make sure that this application is running.	See the "Installing Unified CM" section on page 3-3.
Step 7	Install the Cisco-provided Windows 2003 Server operating system (if needed).	See the "Installing the Required Operating System" section on page 3-4.
Step 8	Connect the server on which you are installing to the network.	See the "Connecting a Server to the Network" section on page 3-5.
Step 9	Verify network connections.	See the "Verifying Hardware Settings and Connectivity" section on page 3-6

Table 1-2 Overview of CRS Upgrade Procedures (continued)

	Procedure	Reference
Step 10	Register your CRS purchase and obtain your license files[1].	See the "Obtaining License Files" section on page 3-8.
Step 11	Review the installation notes.	See the "Installation Notes" section on page 3-15.
Step 12	Disable virus scanning and the Cisco Security Agent on the server on which you are upgrading (if applicable).	See the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-11.
Step 13	Perform the CRS installation procedure.	See Chapter 4, "Installing CRS."
Step 14	Access CRS Administration and perform the initial setup procedure.	See Chapter 7, "Performing the Initial Setup of CRS."
Step 15	Install the current CRS patch (if applicable).	See Chapter 9, "Patching CRS."
Step 16	Configure CRS (as needed).	See the "Configuring CRS" section on page 3-11.
Step 17	Install and configure other applications that you will use with CRS (as needed).	See the "Implementing Additional Applications" section on page 3-12.

1. You can perform this step any time before you perform the cluster setup procedure.

CHAPTER 2

CRS Deployment Options

This chapter provides information about the software components and servers that can make up a CRS 5.0(2) deployment. It also describes the CRS databases and the CRS cluster, and provides an overview of deploying Cisco CRS with a Unified Communications Gateway.

You can deploy CRS with Cisco Unified Communications Manager (Unified CM) or Cisco Unified Communications Manager Express (Unified CME). These applications cannot reside on the server on which you install CRS.

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

Also refer to *Release Notes for Cisco Customer Response Solutions 5.0(2)* for important updated information.

For additional information about deploying CRS 5.0(2), refer to *Cisco Unified CCX Solution Reference Network Design*, which is available at this URL:

www.cisco.com/go/srnd

This chapter includes the following sections:

- CRS Components, page 2-2
- Standby Server, page 2-2
- CRS Databases, page 2-3
- CRS Cluster, page 2-3
- Deploying CRS with a Unified Communications Gateway, page 2-3

CRS Components

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

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

Standby Server

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

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

1. Install CRS on the server that will be the active server and on the server that will be the standby server.
2. Perform the server setup procedure on the active 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.

CRS Databases

CRS 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 CRS installation procedure installs Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) for use with the CRS 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 on the server on which you are installing it. If you deploy high availability, you must install MS SQL Server 2000.

You install MS SQL Server 2000 after you install CRS. For additional information, refer to the *MS SQL Server 2000 for Cisco Customer Response Solutions* Resources Card.

CRS Cluster

The CRS cluster (often referred to as *cluster* in this manual) consists of the single server (or *node*) that is running active CRS or a standby server running CRS. There can be only one standby server.

Deploying CRS with a Unified Communications Gateway

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

For additional detailed information, refer to *IPCC Gateway Deployment Guide*, which is available at this URL:

http://cisco.com/application/pdf/en/us/guest/products/ps1001/c1097/ccmigration_09186a00805a8091.pdf

CHAPTER 3

Installation Requirements, Prerequisites, and Related Procedures

This chapter describes various requirements, prerequisites, and procedures that might apply to the Cisco CRS installation that you are performing. It also provides important notes that you should review before you install CRS.

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 "CRS Installation Overview" section on page 1-2.

This chapter includes the following sections:

- Server Requirements, page 3-2
- Client System Requirements, page 3-2
- Server Performance, page 3-3
- Installing Unified CM, page 3-3
- Deploying Unified CME, page 3-3
- Installing the Required Operating System, page 3-4
- Connecting a Server to the Network, page 3-5
- Verifying Hardware Settings and Connectivity, page 3-6
- Obtaining License Files, page 3-8
- CRS Disk Space Usage, page 3-10
- Disabling Virus Scanning and the Cisco Security Agent, page 3-11
- Configuring CRS, page 3-11

- Implementing Additional Applications, page 3-12
- Installation Notes, page 3-15

Server Requirements

Any server on which you install CRS must be approved for CRS. For a list of approved servers, refer to *Cisco Customer Response Solutions (CRS) 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 CRS must meet these requirements:

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

Client System Requirements

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

You can also install CRS plug-ins on a client system.

A client system must meet these requirements:

- Operating system—Windows 2000 Professional, Windows XP Professional, or Windows Vista.
- Browser—Microsoft Internet Explorer 6.x

Server Performance

To ensure that a server operates most efficiently, follow these guidelines when installing CRS:

- Activate only the CRS software components that you will use.
- If you are installing CRS on a server that has been used for another application, uninstall the application before installing Cisco CRS. Or, if possible, reinstall the operating system on the server. (To install the operating system, see the "Installing the Required Operating System" section on page 3-4.)

Installing Unified CM

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

These applications cannot be installed on the server on which CRS runs.

For additional information and instructions, refer to the 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 Unified CM support patches. To obtain current support patches and installation instructions, go to this URL:

http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

Deploying Unified CME

Table 3-1 provides an overview of the tasks to perform when you deploy Unified CME with CRS. This table shows the steps that you must perform before you install and configure CRS, and the steps that you must perform after you install and Configure CRS.

Table 3-1 Overview of Deploying Unified CME with CRS

	Procedure	Reference
Step 1	Verify that the appropriate version of Unified CME is installed on the router. Unified CME is installed on the router and the corresponding IOS image contains the Unified CME software.	Refer to *Cisco Unified Communications Manager Express 4.2 New Features*.
Step 2	Configure the Unified CME router. **Tip** Note the AXL user ID, password, and the router IP address.	
Step 3	Configure Unified CME to enable interoperability with CRS.	
Step 4	Install CRS for Unified CME.	See Chapter 4, "Installing CRS."
Step 5	Perform the initial setup of CRS for Unified CME.	See Chapter 7, "Performing the Initial Setup of CRS."
Step 6	Configure Unified CME Telephony Subsystem to enable interoperability with Cisco Unified Contact Center Express (Unified CCX).	Refer to *Cisco CRS Administration Guide*.
Step 7	Create users and assign the agent capability in CRS.	

Installing the Required Operating System

Before you install CRS, the latest version of the Windows 2003 Server operating system provided by Cisco must be running on the server on which you perform the installation.

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

To install the Windows 2003 Server operating system, patches, and hotfixes, refer to 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 CRS 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 CRS.

Connecting a Server to the Network

Before you install CRS, make sure that you connect the server on which you are installing to the network. In addition, check the switch configuration and configure the link speed of the server network interface card (NIC) as appropriate for the switch.

By default, CRS 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 NIC 1 connector
Cisco MCS-7825	Use the lower NIC connector
Cisco MCS-7835 and Cisco MCS-7845	Use the NIC 1 connector
IBM xSeries 330	Use the upper NIC connector

CRS does not support NIC teaming.

Verifying Hardware Settings and Connectivity

This section describes procedures that you should follow to verify hardware settings and connectivity. You should perform these procedures after you install the Cisco-provided operating system on the servers in the CRS cluster.

The procedures to verify hardware settings and connectivity are:

- Configuring Speed and Duplex Settings, page 3-6
- Checking Connectivity Between all Servers, page 3-7
- Verifying NIC Binding Order, page 3-8

Configuring Speed and Duplex Settings

You should verify the speed and duplex settings for each server and switch in the CRS cluster and set them to the appropriate values, if needed. To do so, follow these steps:

Procedure

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 CRS cluster and take corrective action if you identify any issues.

To check connectivity, perform basic name resolution tests by following this procedure on each server in the CRS cluster:

Procedure

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 CRS server. It 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 DNS, which you should address before installing CRS.

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....` appears in the output. If a message such as `Request Timed Out` or `Destination Unreachable` appears, there are IP routing issues or networking issues between the servers. You should address these issues before installing CRS.
- Make sure that `Ping request could not find host` *`hostname`*`...` does not appear. If it does, there is likely a DNS issue, such as a host name that does not exist or a DNS server that cannot be reached. You should address this issue before installing CRS.

Verifying NIC Binding Order

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

Procedure

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, make sure 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 CRS components that you will be able to activate for use on a server.

After you install CRS, you perform the cluster setup procedure, as described in Chapter 7, "Performing the Initial Setup of CRS." As part of that procedure, you specify the location of your Cisco CRS license file or files.

Your copy of CRS 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 require assistance with any PAK issues, you can send e-mail to licensing@cisco.com.

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

Procedure

Step 1 Locate your PAK.

If you have the CRS DVD, your PAK is on the its sleeve.

If you have already installed CRS 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 CRS
- 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. Do not rename a license file.

If you receive multiple license files, you can save them in a single ZIP file. This way, you can specify all your license files at once when you perform the cluster setup. (Do not create such a ZIP file if you will use the license files when upgrading CRS.) If you create a ZIP file for license 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.

CRS Disk Space Usage

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

By default, CRS uses Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) for the CRS databases. You can install Microsoft SQL Server 2000 after you install CRS, 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, make sure that you obtain the MS SQL Server 2000 disk and the *MS SQL Server 2000 for Cisco Customer Response Solutions* Resources Card.

The size of the CRS 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 CRS 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

You must disable virus scanning on a server before you install or repair CRS on that server. In addition, you must disable the Cisco Security Agent (CSA) service if it is enabled on a server before you perform these procedures on that server.

After you complete the install or repair procedure, make sure to re-enable virus scanning or the CSA service.

For instructions about disabling and enabling the CSA service, refer to *Installing Cisco Security Agent for Cisco CRS*, which is available at this URL:

http://www.cisco.com/en/US/partner/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 CRS

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

For additional information about configuring CRS, and for detailed instructions, refer to *Cisco CRS Administration Guide*.

Implementing Additional Applications

Your telephony solution may include a number of applications and plugins that work with Cisco CRS 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 CRS Administration before they will function with CRS. For detailed configuration information, refer to the following documents:

- *Cisco CRS Administration Guide*
- *Getting Started with Cisco Unified IP IVR*
- *Getting Started with Cisco Unified CCX*

For additional information about compatibility among applications, refer to *Cisco Customer Response Solutions (CRS) 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 third-party software to a CRS system may affect how Cisco CRS functions and may affect Cisco support for CRS. 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 CRS 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 CRS. Installing unsupported software can cause performance problems.
- Do not manually install the CRS Editor on a server that is running Cisco CRS. The CRS Editor application is installed by default when you install Cisco CRS 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 CRS:
  - Automatic speech recognition (ASR) or text-to-speech (TTS) applications

- Cisco Agent Desktop (CAD)
- Unified CM
- Cisco Conference Connection
- Cisco CRS Historical Reporting
- Cisco Emergency Responder

- Cisco Personal Assistant
- Cisco Supervisor Desktop (CSD)
- Cisco Unity

Table 3-4 Additional Applications

Application	Description	Reference
Automatic speech recognition (ASR) and text-to-speech (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 to the documentation that is provided by your ASR or TTS vendor.
CAD.	Portion of CAD 6.5 that resides on the computer of a contact center agent and that is used to handle customer contacts.	Refer to *CAD Installation Guide, IP Contact Center Express Edition 6.5(0).*
CSD.	Portion of CAD 6.5 that resides on the computer of a contact center supervisor and that is used to help manage a team of agents.	Refer to *Cisco CAD Installation Guide CAD 6.5 for Cisco Contact Center Express Release 5.0(1)*
CRS Editor.	Lets you create, modify, validate, and debug CRS scripts.	Refer to *Cisco CRS Administration Guide* and *Cisco CRS Scripting and Development Series* documents.
CRS Historical Reporting.	Lets you generate, view, print, schedule, and export a wide variety of reports that provide information about the call activities of your CRS system.	Refer to *Cisco Customer Response Solutions Historical Reporting User Guide*.

Table 3-4 Additional Applications (continued)

Application	Description	Reference
Cisco Security Agent (CSA).	Protects the server against unauthorized intrusion. Install the CSA on all servers in the cluster.	Refer to *Installing Cisco Security Agent for Cisco Customer Response Solutions*.
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 to *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 CRS:

- You will need CRS installation disks when you install or repair CRS. If you have a valid Cisco Software Application Support (SAS) or Software Application Support with Upgrades (SASU) service contract, you can obtain the latest CRS media by using the Cisco Product Upgrade Tool (PUT).
- Uninstalling CRS is not supported. If you want to remove CRS from a server, you must re-image the server. Make sure to back up your Cisco CRS 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 CRS Installer remotely.
- Make sure that there are no Terminal Services sessions connected to the server on which you are running the CRS 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.
- Software that blocks pop-up windows from appearing in a web browser can interfere with some CRS installation windows. Disable such software before you perform an installation.

- Do not install CRS on a computer that is running Microsoft Active Directory. If Microsoft Active Directory is running on the computer on which you will install Cisco CRS, move Microsoft Active Directory to another computer.
- If the server on which you will install CRS 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 CRS 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 CRS version 5.0(2) is not supported.

CHAPTER 4

Installing CRS

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

- To install CRS 5.0(2) for the first time
- To change the language for the CAD or the CSD
- To change a deployment from Cisco Unified Communications Manager (Unified CM) to Cisco Unified Communications Manager Express (Unified CME) or from Unified CME to Unified CM

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

- To reinstall CRS

This chapter includes the following sections:

- Before You Begin, page 4-2
- Installing the CRS Software, page 4-3

Before You Begin

Before you install CRS, review the "CRS Installation Overview" section on page 1-2 and perform the following general procedures that are described in that section. Depending on the type of installation that you are performing, you may not need to perform all of these procedures. [add "disable pop-up blocker]

Procedure	Checkoff
1. Review the CRS deployment guidelines.	❑
2. Make sure that you are installing on an approved server.	❑
3. Review the guidelines for ensuring that the server on which you are installing operates most efficiently.	❑
4. Install and configure Unified CM or Unified CME (if needed), and make sure that one of these applications is running.	❑
5. Install the Cisco-provided Windows 2003 Server operating system (if needed).	❑
6. Connect the server on which you are installing to the network.	❑
7. Verify network connections.	❑
8. Register your CRS purchase and obtain your license files[1].	❑
9. Obtain the general information that you will need to provide during installation and set up.	❑
10. Review the installation notes.	❑
11. Disable virus scanning and the Cisco Security Agent on the server on which you are installing (if applicable). Refer Disabling Virus Scanning and the Cisco Security Agent, page 3-11 for more information on disabling virus scanning and the Cisco Security Agent.	❑

1. You can perform this step any time before you perform the cluster setup procedure.

Note Windows 2003 supports a maximum of 15 characters in the machine hostname. Before installing CRS, please ensure that the machine hostname does not contain more than 15 characters. If the hostname contains more than 15 characters , change it to less than or equal to 15 characters.

Installing the CRS Software

When you install CRS, 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 11, "CRS 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 10, "Changing Your CRS Deployment."
- To cancel the installation at any time, click **Cancel** in an installation window.
- Make sure that you perform the tasks described in the "Before You Begin" section on page 4-2 before you start the installation procedure.

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

To install CRS 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 CRS DVD.

If the Cisco Customer Response Solutions Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CRSAutorun.exe**.

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

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

The CRS Installer performs a series of checks and processes.

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

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 CRS Installer procedure that you are performing
and can cause the system to become unrecoverable.
```

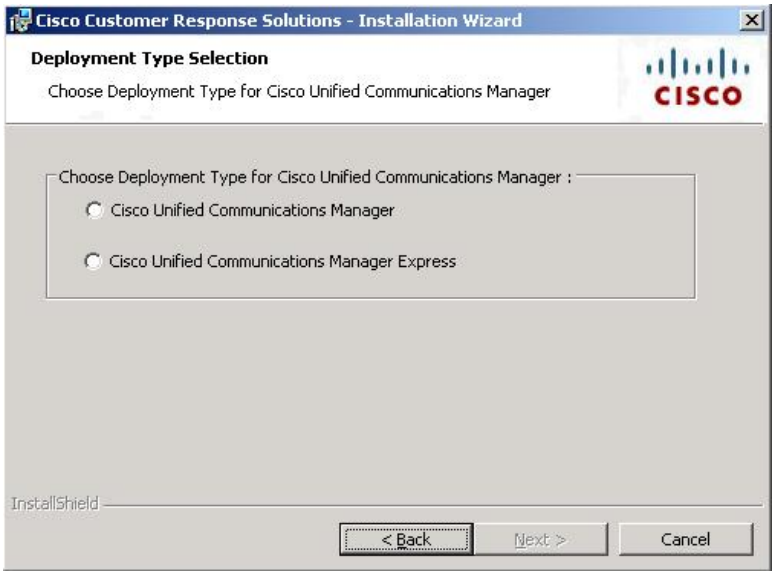
Figure 4-1 Welcome Window

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

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

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

Figure 4-2 Deployment Type Selection Window



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

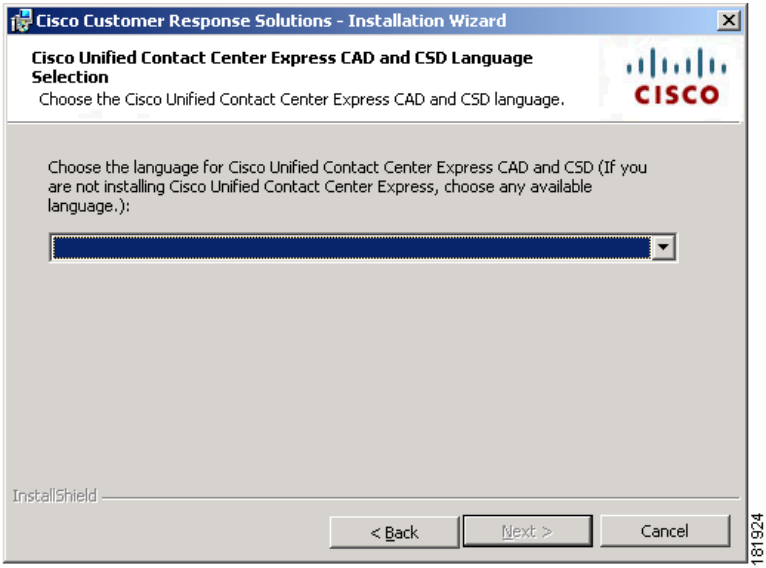
a. Choose either of these options:

- **Cisco Unified Communications Manager**—Choose this option if you will use CRS with Unified CM
- **Cisco Unified Communications Manager Express**—Choose this option if you will use CRS with Unified CME

b. Click **Next**.

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

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



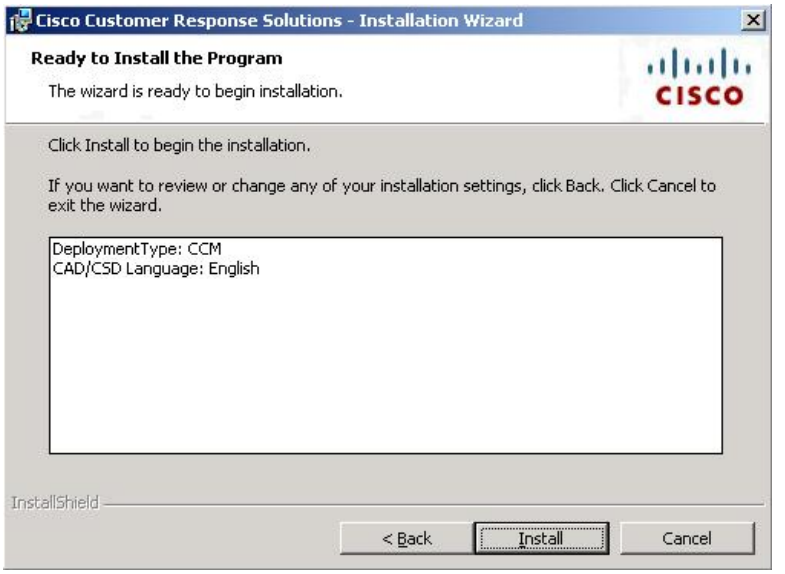
Step 6 In the Cisco Unified Contact Center Express CAD and CSD Language Selection Window, take these actions:

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

b. Click **Next**.

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

Figure 4-4 Ready to Install the Program Window



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

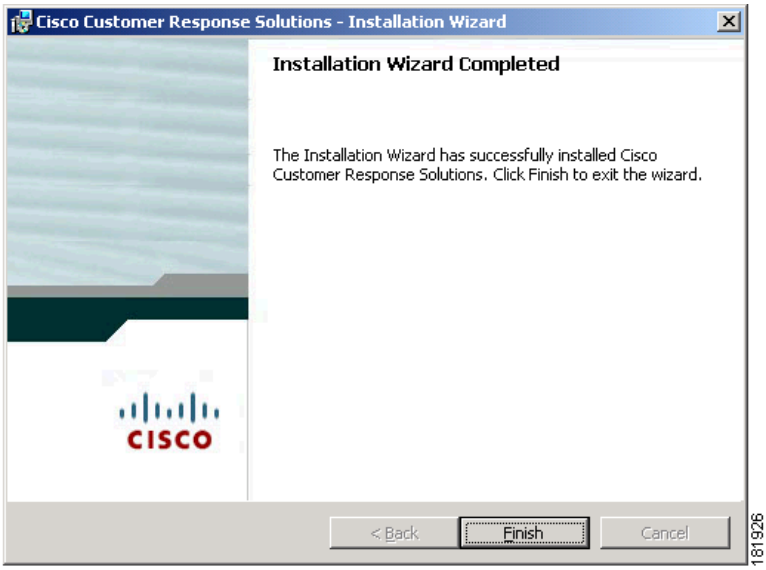
A pop-up window displays the message that the J2SE Runtime Environment setup has completed successfully.

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 appears, 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 whether you want to reboot the system now.

Step 10 Take either of these actions:

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

  After you install SQL Server 2000, perform the appropriate initial set up procedure. To perform that procedure, see Chapter 7, "Performing the Initial Setup of CRS."

- 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.

  The CRS Administration application starts automatically so that you can perform the appropriate initial set up procedure. To perform that procedure, see Chapter 7, "Performing the Initial Setup of CRS."

CHAPTER 5

Upgrading CRS 4.5(x) to CRS 5.0(2)

This chapter describes how to upgrade from CRS 4.5(x) to CRS 5.0(2). Direct upgrades from other Cisco releases are not supported.

The upgrade automatically installs all CRS components. Your CRS licenses determine which components you can activate.

This chapter includes the following sections:

- Before You Begin, page 5-1
- Using the 5.0(2) License Validator, page 5-2
- Using the License Conversion Tool, page 5-3
- Re-Imaging CRS Servers, page 5-7
- Upgrading Unified CM, page 5-8
- Upgrading the CRS Software, page 5-8
- Installing MS SQL 2000 Server, page 5-9

Note Refer the *Cisco CRS Installation Guide 5.0(1)* for upgrading CRS 4.5(x) to CRS 5.0(1).

Before You Begin

Before you upgrade CRS, review the "CRS Upgrade Overview" section on page 1-3 and perform the following general procedures that are described in that section:

Procedure		Checkoff
1.	Review the CRS deployment guidelines	❑
2.	Make sure that you are upgrading on an approved server, which meets the requirements for Cisco CRS.	❑
3.	Review the guidelines for ensuring that the server on which you are upgrading operates most efficiently.	❑
4.	Register your CRS purchase and obtain your license files.	❑
5.	Run the 5.0(2) License Validator to verify that you have the correct upgrade license file.	❑
6.	Back up your CRS data.	❑
7.	Upgrade and configure Cisco Unified Communications Manager (Unified CM) and make sure that this application is running.	❑
8.	Install the Cisco-provided Windows 2003 Server operating system (if needed).	❑
9.	Connect the server on which you are installing to the network.	❑
10.	Verify network connections.	❑
11.	Obtain the general information that you will need to provide during installation and set up.	❑
12.	Review the installation notes.	❑
13.	Disable virus scanning and the Cisco Security Agent on the server on which you are upgrading (if applicable).	❑

Using the 5.0(2) License Validator

The 5.0(2) License Validator verifies that the CRS 5.0(2) license file that you received is correct for an upgrade. You use this tool only when you are upgrading to CRS 4.5(x) to CRS 5.0(2).

Before you run this tool, obtain your CRS 5.0(2) license file or upgrade license file. If you obtain a 5.0(2) license file, copy it to any directory on the CRS server. Make sure that this directory contains no files other than the CRS 5.0(2) license file. If you obtain a 5.0(2) upgrade license file, copy it to the same directory on

the Cisco CRS server in which the 4.5 license files are stored. Make sure that this directory contains no files other than the CRS 4.5 license file and CRS 4.5 to 5.0(2) upgrade license file.

To run the 5.0(2) License Validator, follow these steps:

Procedure

Step 1 Put the 5.0(2) License Validator CD into the CRS server.

Step 2 Navigate to the Validator directory on the CD double-click **Validator.bat**.

The 5.0(2) License Validator window appears.

Step 3 In the 5.0(2) License Path field, enter the path to the directory in which you stored the CRS 5.0(2) license file or the 5.0(2) upgrade license file.

Step 4 Click **Validate**.

The Validation Completed window appears.

If this window displays Valid 5.0(2) License, you can perform an upgrade to Cisco CRS 5.0(2).

If this window displays Not a valid 5.0(2) license, you must obtain a valid license file before you can upgrade.

Using the License Conversion Tool

If you are a CRS 3.5 Cisco Software Application Support plus Upgrades (SASU) user, you can use the CRS 5.0(2) License Conversion tool to convert your existing CRS 3.5 license to its corresponding CRS 5.0(x) 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 CRS 5.0 license files.

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.

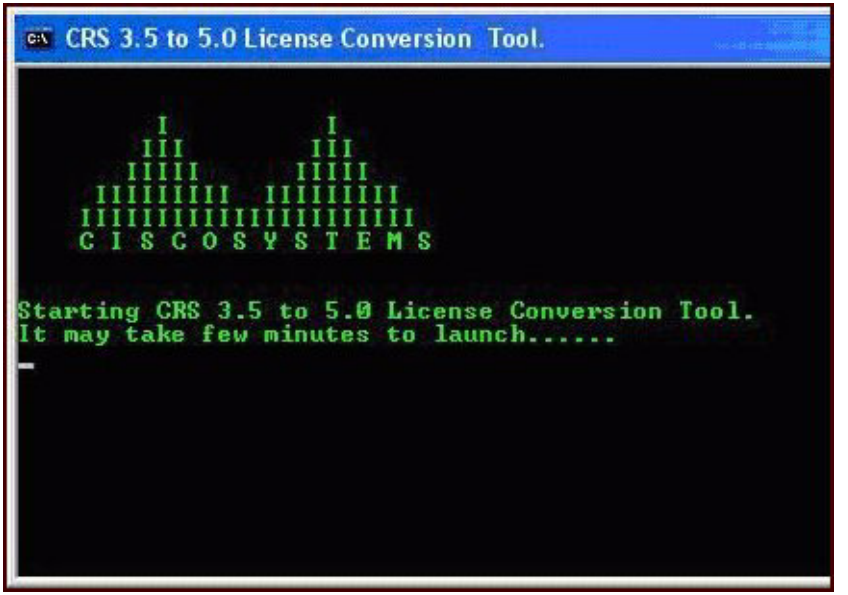
Perform the following steps to convert your existing CRS 3.5 license file to CRS 5.0(x) License files.

Procedure

Step 1 Insert the CRS 5.0 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 as shown in Figure 5-1 is displayed.

Figure 5-1 CRS 3.5 to 5.0 License Conversion Tool Window

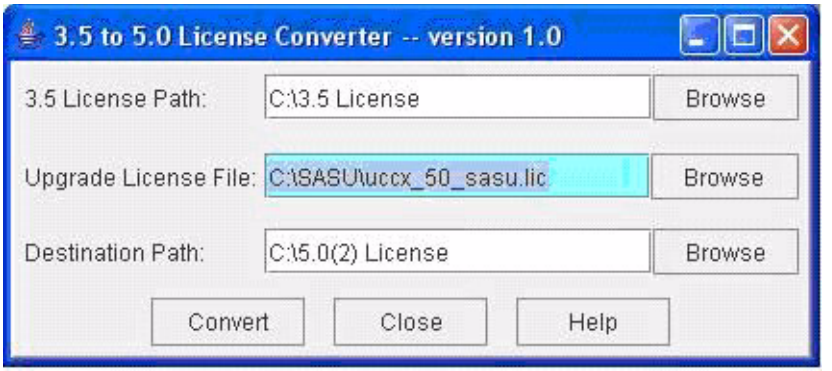


Step 2 The 3.5 to 5.0 License Converter dialog box is displayed. In the 3.5 License Path field, navigate to the License folder path that contains the CRS 3.5 licenses.

Figure 5-2 3.5 to 5.0 License Converter Dialog Box

Step 3 In the Upgrade License File field, navigate to the 3.5 to 5.0 SASU upgrade license file. You will get this license file as part of the upgrade kit.

Figure 5-3 3.5 to 5.0 License Converter Dialog Box



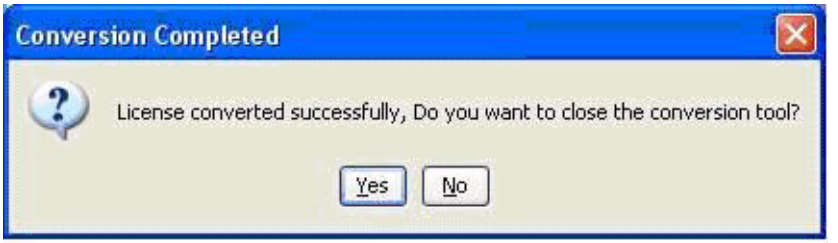
Step 4 In the Destination Path field, specify the 5.0 license destination path where you want to generate the converted license files.

Figure 5-4 3.5 to 5.0 License Converter Dialog Box

Step 5 Click Convert.

Step 6 Click Yes in the Conversion Completed dialog box.

Figure 5-5 Conversion Completed Dialog Box



Step 7 Navigate to the 5.0 license destination path that you specified in Step 4 to see the generated CRS 5.0 licenses.

Step 8 The License Conversion tool logs will be generated in the **C:\UpgradeLicense.log** file.

Re-Imaging CRS Servers

After you back up your CRS 4.5 data and before you install the CRS 5.0(2) software, you must re-image the CRS server. For more information on backing-up your data, refer the *Cisco CRS Administration Guide*.

If you are replacing any server with a new one, perform this procedure on the replacement server.

Before you re-image or replace a server, make a note of its host name, Domain Name System (DNS) if configured, and IP address.

Caution The re-imaging process deletes all data on a server. Do not perform the re-imaging server until you back up your CRS data.

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

Procedure

Step 1 Install the Cisco-provided Windows 2003 Server operating system on the server.

See the "Installing the Required Operating System" section on page 3-4.

Step 2 Connect the server to the network.

See the "Connecting a Server to the Network" section on page 3-5.

Step 3 Configure 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 to your Windows network documentation.

Step 4 Install other applications, such as the Cisco Security Agent, as needed.

In addition, if DNS was configured on this server, reconfigure DNS.

Step 5 Verify hardware settings and network connectivity as described in the "Verifying Hardware Settings and Connectivity" section on page 3-6.

Now you are ready to install CRS.

Upgrading Unified CM

After re-imaging the CRS server, upgrade Unified CM.

Before you upgrade Unified CM, make sure to back up your existing data.

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

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

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

http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

Upgrading the CRS Software

To upgrade to CRS 5.0(2), perform these general steps:

1. Install CRS. For instructions, see Chapter 4, "Installing CRS."
2. Perform the appropriate initial set up procedure. For instructions, see Chapter 7, "Performing the Initial Setup of CRS."
   If you are upgrading from CRS 4.5(x) standalone deployment to CRS 5.0(2) standalone deployment, refer Chapter 7, "Performing the Single Node Setup Procedure for a Deployment with Unified CM." If you are upgrading from CRS 4.5(x) standalone deployment to CRS 5.0(2) with HA, refer Chapter 7, "Performing the Add to Cluster Setup Procedure for a Deployment with Unified CM."

When you upgrade CRS, follow these guidelines:

- To minimize interruptions to your call center activities, perform the upgrade procedure at off-peak hours.
- Make sure that you perform the tasks described in the "Before You Begin" section on page 5-1 before you start the upgrade procedure.

Installing MS SQL 2000 Server

When upgrading from CRS 4.5(x) to CRS 5.0(2), if the upgrade requires reinstallation of MS SQL 2000 server, or you are moving from MSDE to MS SQL 2000 server, you can reuse the MS SQL 2000 CD shipped with CRS 4.5(x) along with the MS SQL 2000 server upgrade utility.

The utility and the readme.html, that contains instructions to run the utility, are available at:
http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/prod_how_to_order.html

CHAPTER 6

Upgrading CRS 5.0(1) to CRS 5.0(2)

This chapter describes how to upgrade from CRS 5.0(1) to CRS 5.0(2).

This chapter includes the following sections:

- Before You Begin, page 6-1
- Upgrading CRS 5.0(1) to CRS 5.0(2), page 6-1
- Upgrading HA node from 5.0(1) to 5.0(2), page 6-6

Before You Begin

Perform the following steps before upgrading CRS 5.0(1) to 5.0(2):

1. Disable virus scanning and the Cisco Security Agent on the server on which you are upgrading.
2. Ensure that the CRS 5.0 server on which you are going to upgrade is fully operational, that is, all the CRS services are running on the server.
3. Backup the original ClusterData folder. To do this, copy the ClusterData folder from C:\Program Files\wfavvid and save it on a separate machine.

Upgrading CRS 5.0(1) to CRS 5.0(2)

Perform the following steps to upgrade CRS 5.0(1) to CRS 5.0(2):

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

Step 2 Insert the CRS DVD.

If the Cisco Customer Response Solutions Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CRSAutorun.exe**.

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

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

The CRS Installer performs a series of checks and processes. Then, the Welcome window appears, as shown in Figure 6-1.

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

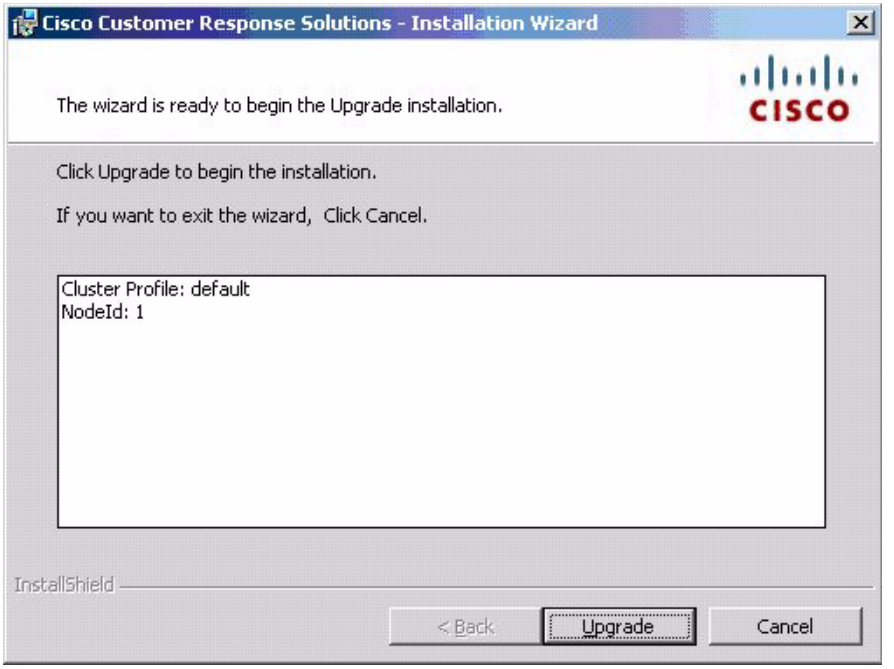
```
*Warning* Disable Cisco Security Agent and virus control
software before proceeding. These applications can interfere
with the Cisco CRS Installer procedure that you are performing
and can cause the system to become unrecoverable.
```

Figure 6-1 Welcome Window

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

The Upgrade windows appear as shown in Figure 6-2.

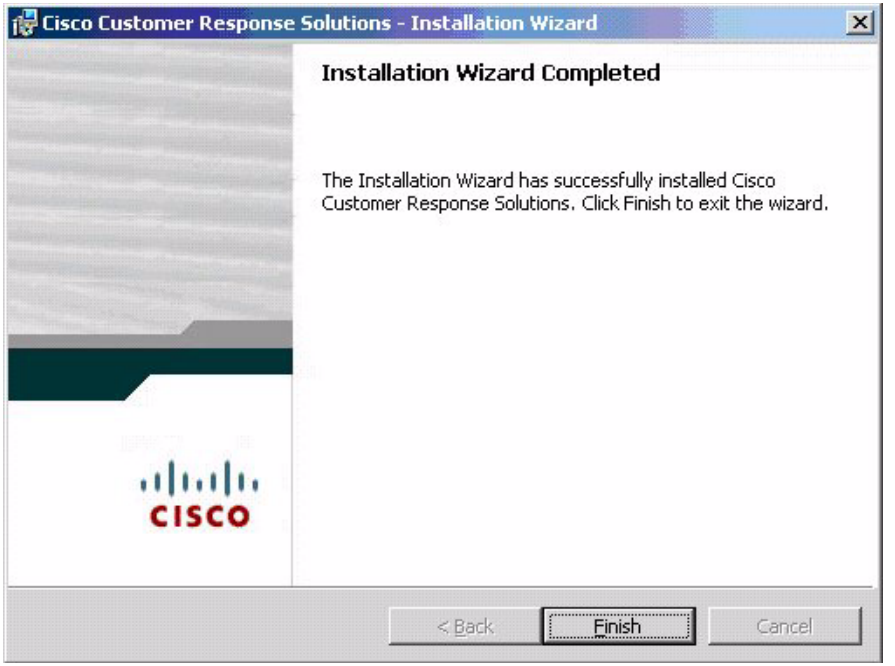
Figure 6-2 Upgrade Window



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

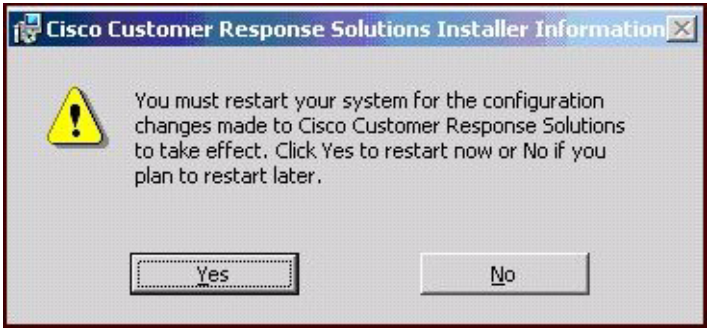
Step 6 In the Installation Wizard Completed window, click **Finish**.

Figure 6-3 Installation Wizard Completed Window



The system prompts you to reboot the system.

Figure 6-4 Restart Window



Step 7 After the server reboots, start the CRS Administration application and verify that the application operates properly.

Upgrading HA node from 5.0(1) to 5.0(2)

Perform the following steps before upgrading HA node from 5.0(1) to 5.0(2):

1. Disable virus scanning and the Cisco Security Agent on the server on which you are upgrading.
2. Ensure that the CRS 5.0 server on which you are going to upgrade is fully operational, that is, all the CRS services are running on the server.
3. Always upgrade the publisher node first.

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

```
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 CRS 5.0(2) DVD in the publisher node.

If the CRS Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CRSAutorun.exe**.

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

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

The Cisco CRS Installer performs a series of checks and processes. Then, the Welcome window appears, 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 CRS Installer procedure that you are performing
and can cause the system to become unrecoverable.
```

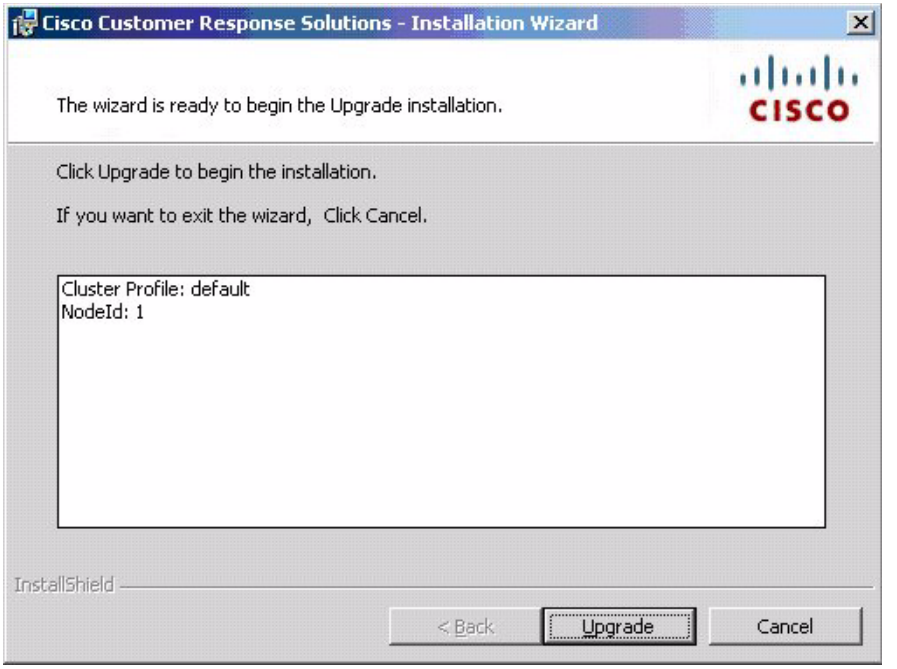
Figure 6-5 Welcome Window

Step 4 Ensure that all virus control software and CSA are disabled and click **OK** in the pop-up window.

Step 5 In Welcome window, Click **Next**.

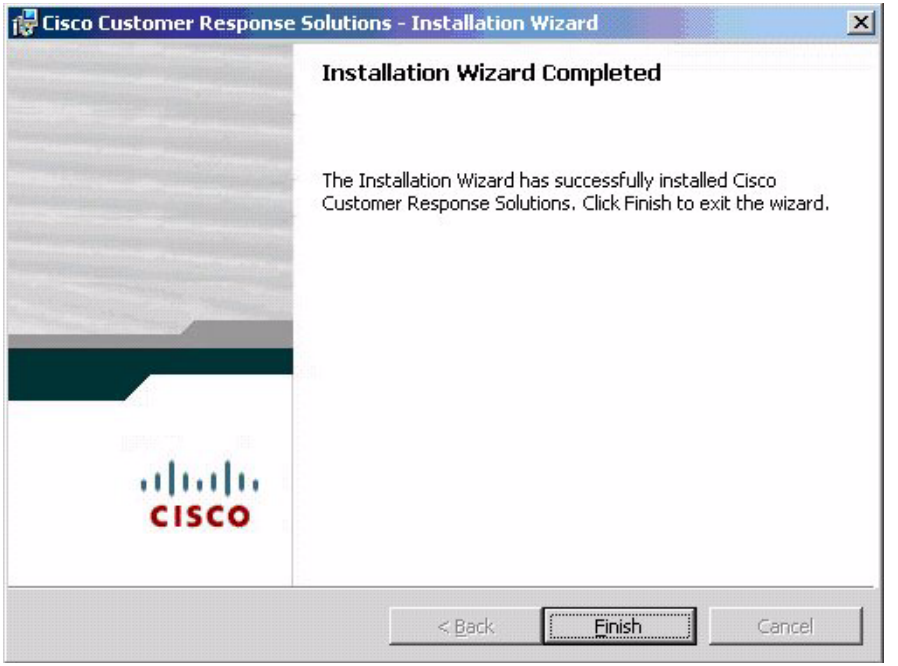
Step 6 The Upgrade windows appear as shown in Figure 6-6.

Figure 6-6 Upgrade Window



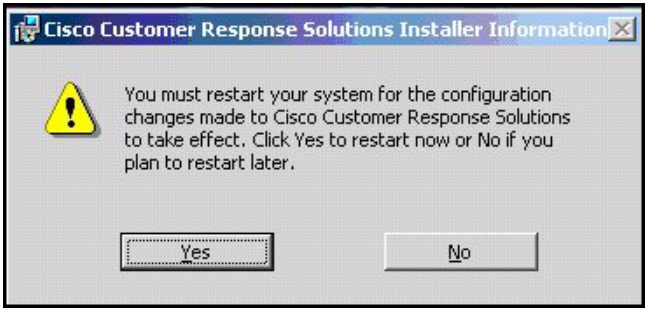
Step 7 In the Upgrade window, click **Upgrade**.

Figure 6-7 Installation Wizard Completed Window



Step 8 In the Installation Wizard Completed window, click **Finish**.

Figure 6-8 Restart Window



You are prompted to reboot the system

Step 9 Reboot the system and log into the Windows operating system as the Administrator before staring the upgrade in the second node.

Step 10 Log into the Windows operating system as the Administrator in the subscriber node.

Step 11 Insert the Cisco CRS 5.0(2) DVD in the subscriber node.

If the CRS Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CRSAutorun.exe**.

Step 12 Click **OK** in the pop-up window that prompts:

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

The Cisco CRS Installer performs a series of checks and processes. Then, the Welcome window appears, 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 CRS Installer procedure that you are performing
and can cause the system to become unrecoverable.
```

Step 13 Ensure that all virus control software and CSA are disabled and click OK in the pop-up window.

Step 14 In Welcome window, Click **Next**.

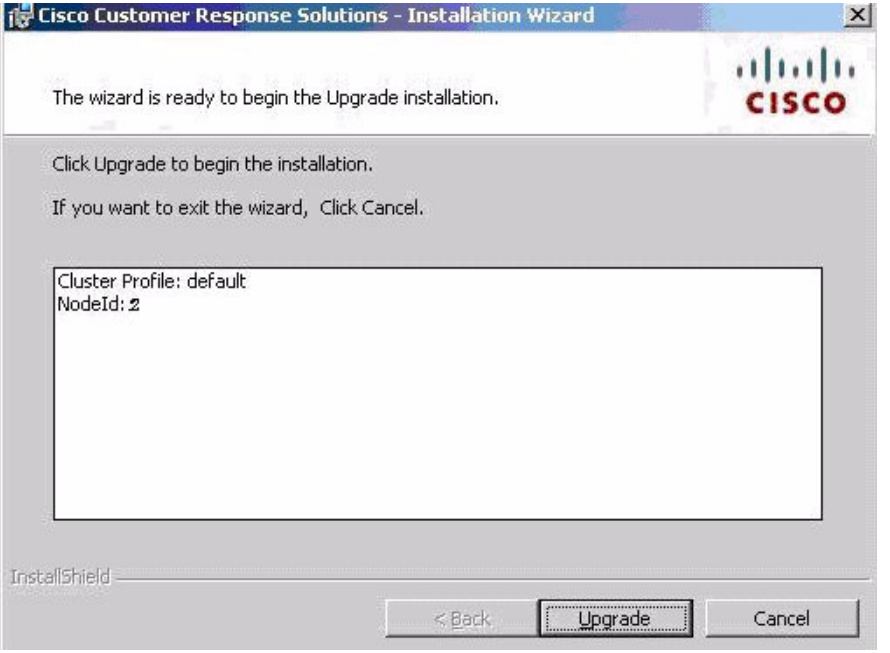
Step 15 You get the following message:

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

Click **OK**.

Step 16 The Upgrade windows appear as shown in Figure 6-9.

Figure 6-9 Upgrade Window



Step 17 In the Upgrade window, click **Upgrade**.

Step 18 In the Installation Wizard Completed window, as shown in Figure 6-7, click **Finish**.

You are prompted to reboot the system.

Step 19 After the server reboots, start the CRS Administration application and verify that the application operates properly.

CHAPTER 7

Performing the Initial Setup of CRS

After you install CRS as described in Chapter 4, "Installing CRS," you use the CRS Administration application to perform the initial system setup. CRS Administration is a web-based application that allows you to control, configure, and monitor many functions of your CRS system. The set up procedure that you perform depends on whether you deploy CRS with Cisco Unified Communications Manager (Unified CM) or with Cisco Unified Communications Manager Express (Unified CME), and on how many servers are in your deployment.

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

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

Section	Description
Accessing CRS Administration, page 7-3	Explains how access the CRS Administration Application. See this section if you do not want to run the initial set up procedure when the CRS Administration Application starts automatically or it you want to run the initial set up procedure from another computer.
Performing the Single Node Setup Procedure for a Deployment with Unified CM, page 7-4	Perform this procedure if you are deploying CRS with Unified CM in a deployment with one node.
Performing First Node Setup Procedure for a Deployment with Unified CM, page 7-13	Perform this procedure on the first node in a cluster if you are deploying CRS with Unified CM in a deployment with two nodes.
Performing the Add to Cluster Setup Procedure for a Deployment with Unified CM, page 7-25	Perform this procedure on the second node in a cluster if you are deploying CRS with Unified CM in a deployment with two nodes.
Performing the Restore Setup Procedure, page 7-32	Perform this procedure in either of these cases: • You are upgrading from CRS 4.5(x). • You have reinstalled CRS 5.0(2) after backing up your CRS data and re-imaging the server.
Performing the Initial Setup Procedure for a Deployment with Unified CME, page 7-39	Perform this procedure if you are deploying CRS with Unified CME.

Accessing CRS Administration

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

After you complete the installation of CRS 5.0(2), the CRS Administration Authentication page appears on the server on which you installed when the server reboots. You can then take either of these actions to access Cisco CRS Administration:

- Log in to CRS Administration from the Authentication page
- Exit the Authentication page, then access it and log in later from this server or from another server

Before you start CRS Administration, make sure 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 CRS Administration, perform the following steps. If you want to bookmark the Authentication page, complete the following procedure before you do so.

Procedure

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

- On the Cisco CRS server, choose **Start > Programs > Cisco CRS Administrator > Application Administration**.
- From any computer in the network that meets the requirements described in the "Client System Requirements" section on page 3-2, 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 CRS:

  http://*servername*/AppAdmin

  If you use this method to access a server for which to perform the server setup procedure, enter the IP address or the host name of that server.

The Authentication page appears.

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 make sure to enter them exactly as shown.

Step 3 Click **Log On**.

The CRS Administrator Setup page for the initial setup procedure appears and a a pop-up window prompts you to disable the Cisco Security Agent.

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

For more information, see the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-11.

To continue with the initial setup of CRS, see the appropriate section for your deployment:

- Performing the Single Node Setup Procedure for a Deployment with Unified CM, page 7-4
- Performing the Initial Setup Procedure for a Deployment with Unified CME, page 7-39

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

When you access CRS Administration for the first time as described in the "Accessing CRS Administration" section on page 7-3, the system automatically initiates the initial setup procedure.

If you are deploying CRS with 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 Unified CM, license files, and other system parameters.

Before you begin the setup procedure, review the information in the "Obtaining License Files" section on page 3-8.

After you complete this setup procedure, refer "Performing the Restore Setup Procedure" section on page 7-32 to restore the backed-up CRS data.

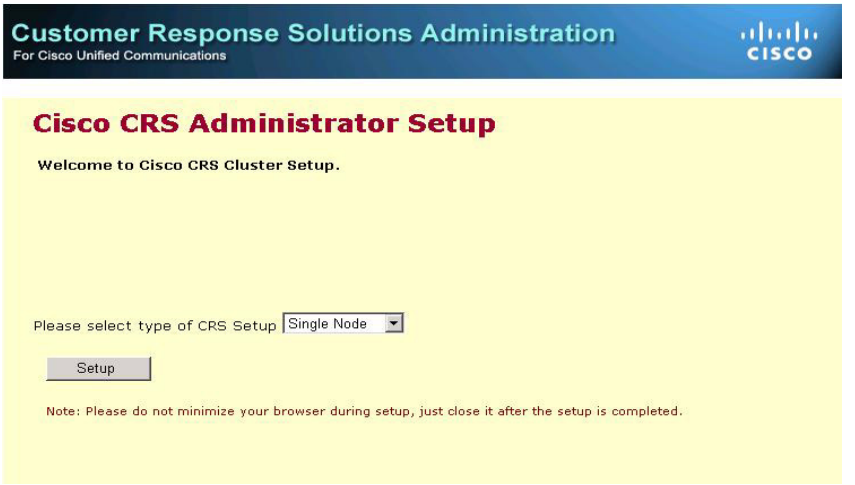
To perform the initial setup, follow these steps:

Procedure

Step 1 Access CRS Administration as described in the "Accessing CRS Administration" section on page 7-3.

The CRS Administrator Setup page appears, as shown in Figure 7-1. In addition, a pop-up window prompts you to disable the Cisco Security Agent before you proceed.

Figure 7-1 Cisco CRS 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 CRS Administrator Setup page, take these actions:

a. From CRS Setup drop down list, choose **Single Node**.

b. Click the **Setup** button.

The Unified CM Configuration page appears, as shown in Figure 7-2.

Figure 7-2 Unified CM Configuration Page

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

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

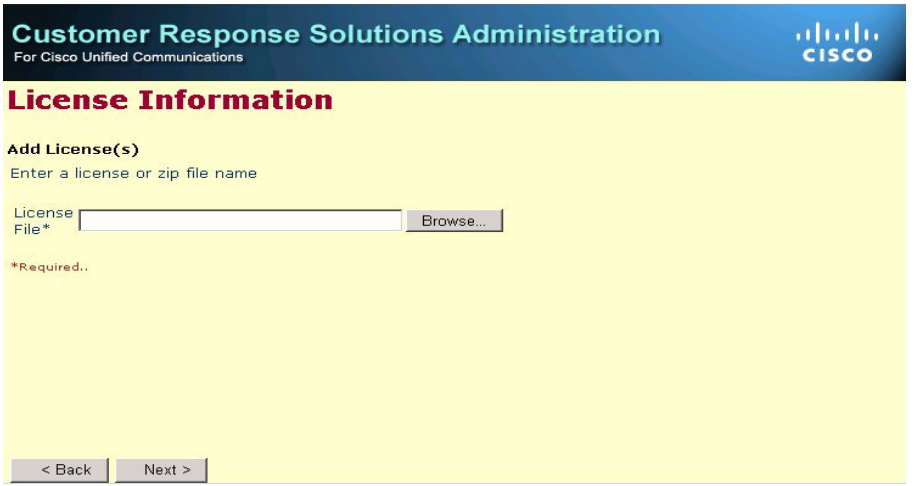
b. In the AXL Admin User Name field, enter the AXL user ID that you created in Unified CM.

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

d. Click **Next**.

The License Information page appears, as shown in Figure 7-3.

Figure 7-3 License Information Page



Step 5 In the License Information page:

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

b. Click **Next**.

The License Information page appears 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 appears 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**.

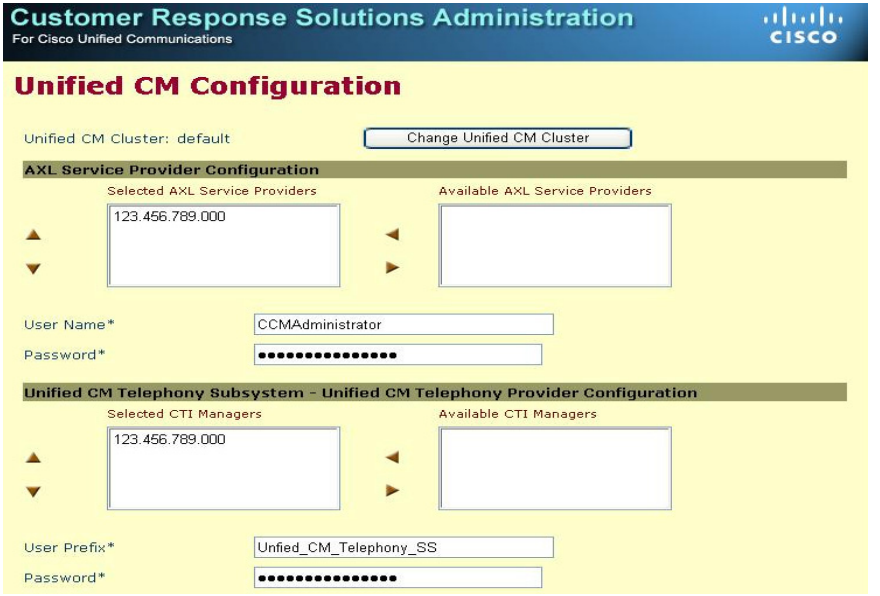
The System Component Activation Completed page appears, as shown in Figure 7-4.

Figure 7-4 System Component Activation Completed Page

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

The Unified CM Configuration page appears. Figure 7-5 shows part of this page.

Figure 7-5 Unified CM Configuration Page, Partial View



Step 7 In the Unified CM Configuration page:

a. In the AXL Service Provider Configuration area, move the IP address of the 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 4.

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 appears.

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 Unified CM Telephony Subsystem - Unified CM Telephony Provider Configuration area, move the IP address of the Unified CM server that you want to use as the CTI provider for the 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 Unified CM Telephony Subsystem - Unified CM Telephony Provider Configuration area, enter an application user name for the Unified CM Telephony subsystem.

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

g. In the RmCm Subsystem - RmCm Provider Configuration area, move the IP address of the 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 CRS 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.

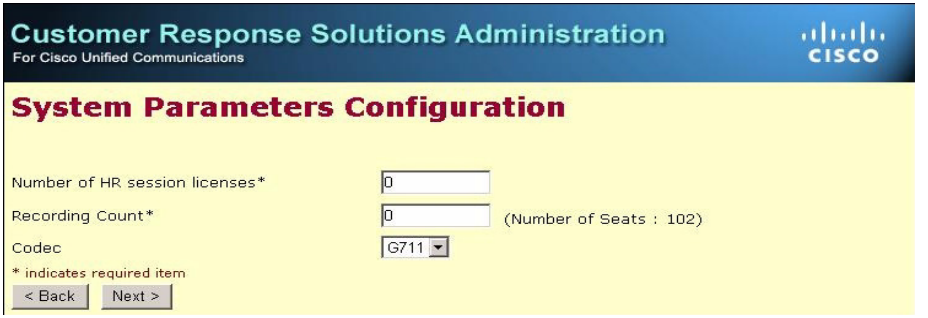
i. In the Password and Confirm Password fields in the Unified Telephony Subsystem - Unified CM Telephony Provider Configuration area, enter a password for the RmCm subsystem application user.

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 appears, as shown in Figure 7-6.

Figure 7-6 System Parameters Configuration Page



Step 8 In the Systems Parameters Configuration page, take these actions:

a. In the Number of HR Session Licenses field, enter the maximum number of CRS 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.

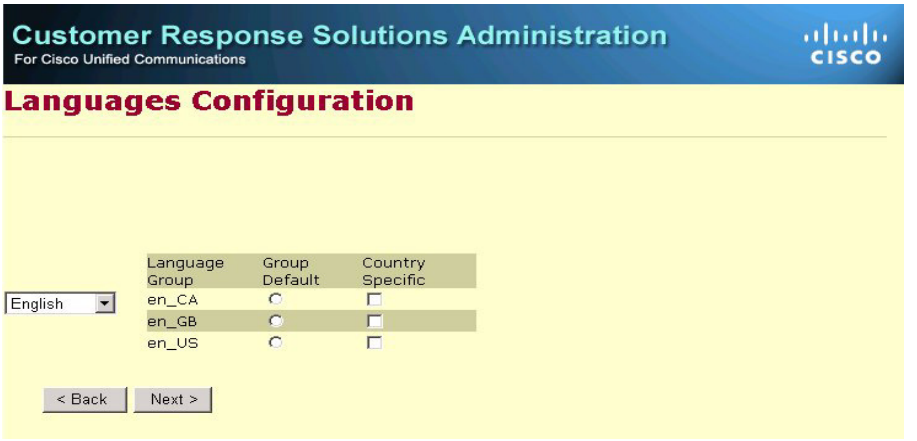
This field appears only if you have a Cisco Unified Contact Center Express (Unified CCX) license.

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

d. Click **Next**.

The Languages Configuration page appears, as shown in Figure 7-7.

Figure 7-7 Languages Configuration Page



Step 9 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 appears in the Language Selection area.

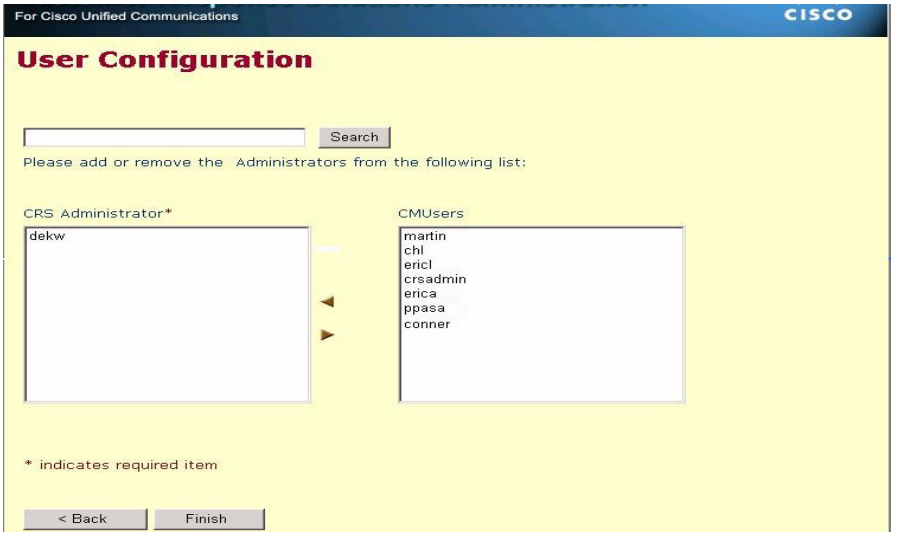
b. If you will create a custom country-specific language, check the **Group Default** check box next to a language to use as a base for your custom country-specific language.

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 appears, as shown in Figure 7-8.

Figure 7-8 User Configuration Page



Step 10 In the User Configuration page:

a. In the **CMUsers** list box, select the Unified CM user that you want to designate as the CRS 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**.

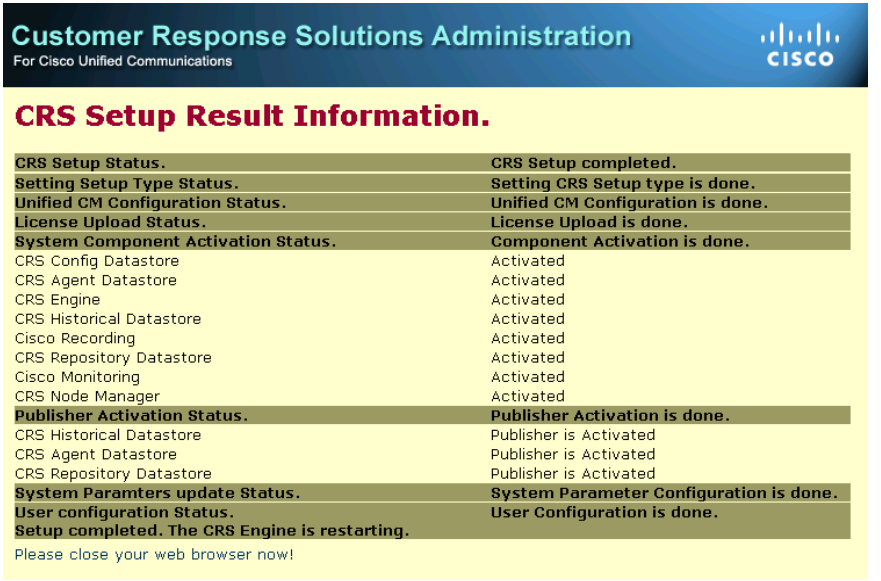
b. Click the left arrow (<) to move the selected user to the CRS Administrator list box.

c. Click **Finish**.

The CRS Setup Result information appears, as shown in Figure 7-9. 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 to *Cisco CAD Installation Guide* for detailed information about using this tool.

Figure 7-9 CRS Setup Result Information Page



Step 11 Exit your web browser.

You have completed the initial setup of CRS. To change and of the configuration settings that you made or to perform additional configuration activities, refer to *Cisco CRS Administration Guide*.

Performing First Node Setup Procedure for a Deployment with Unified CM

When you access CRS Administration for the first time as described in the "Accessing CRS Administration" section on page 7-3, the system automatically initiates the initial setup procedure.

If you are deploying CRS with 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 Unified CM, license files, and other system parameters.

Before you begin the setup procedure, review the information in the "Obtaining License Files" section on page 3-8

To perform the initial setup, follow these steps:

Procedure

Step 1 Access CRS Administration as described in the "Accessing CRS Administration" section on page 7-3.

The Cisco CRS Administrator Setup page appears, as shown in Figure 7-10. In addition, a pop-up window prompts you to disable the Cisco Security Agent before you proceed.

Figure 7-10 Cisco CRS Administrator Setup Page

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

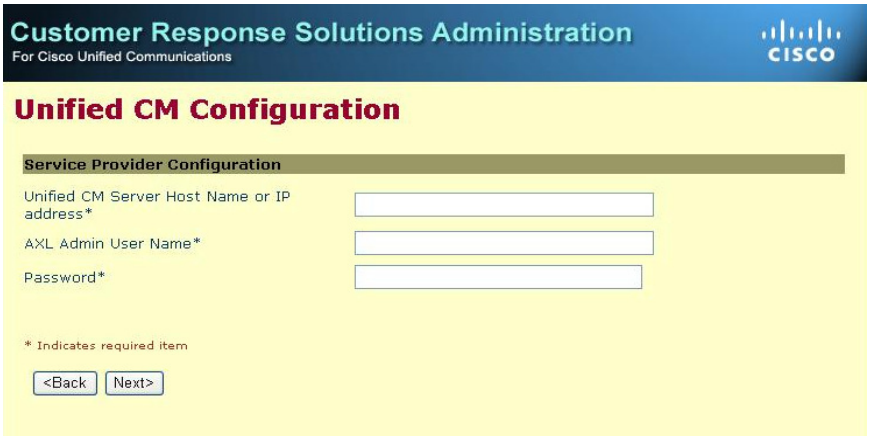
Step 3 In the Cisco CRS Administrator Setup page, take these actions:

a. From CRS Setup drop down list, choose **First Node**.

b. Click the **Setup** button.

The Unified CM Configuration page appears, as shown in Figure 7-11.

Figure 7-11 Unified CM Configuration Page



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

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

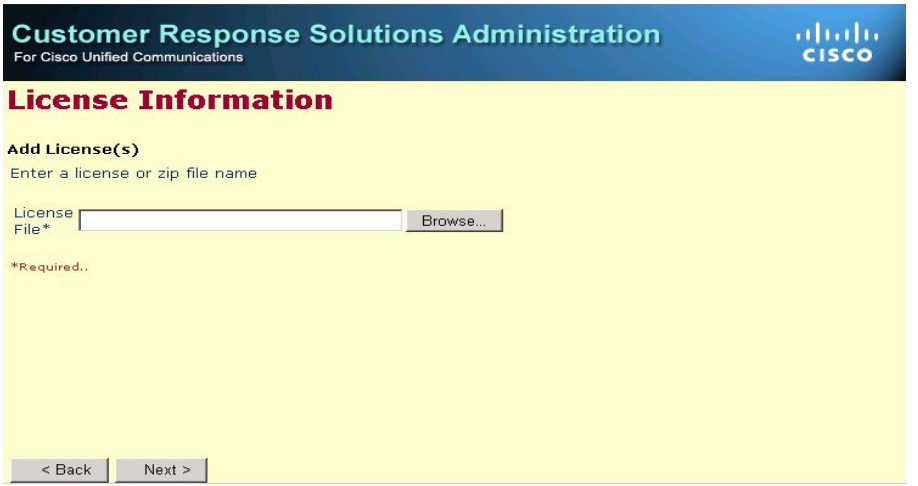
b. In the AXL Admin User Name field, enter the AXL user ID that you created in Unified CM.

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

d. Click **Next**.

The License Information page appears, as shown in Figure 7-12.

Figure 7-12 License Information Page



Step 5 In the License Information page:

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

b. Click **Next**.

The License Information page appears again.

c. Take one of these actions:

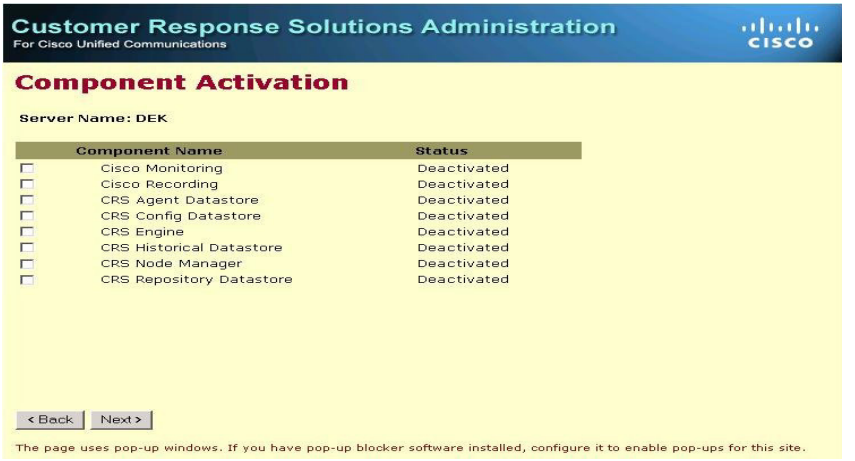
– If you wish to enter multiple license files that you have not put into a single ZIP file, enter the path and name of another license file in the License File field and then click **Next**.

The license information page appears 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 appears, as shown in Figure 7-13.

Figure 7-13 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 to *Cisco CRS 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.
- **CRS Agent Datastore, CRS Config Datastore, CRS Historical Datastore, CRS Repository Datastore**—Enables the Database component on this server. If you have a Unified CCX license, check all of these check boxes. If you have a Cisco Unified IP IVR (Unified IP IVR) license, check all of these check boxes except CRS Agent Datastore, which is not used.

- **CRS Engine**—Enables the Cisco CRS Engine component on this server.
- **CRS 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.

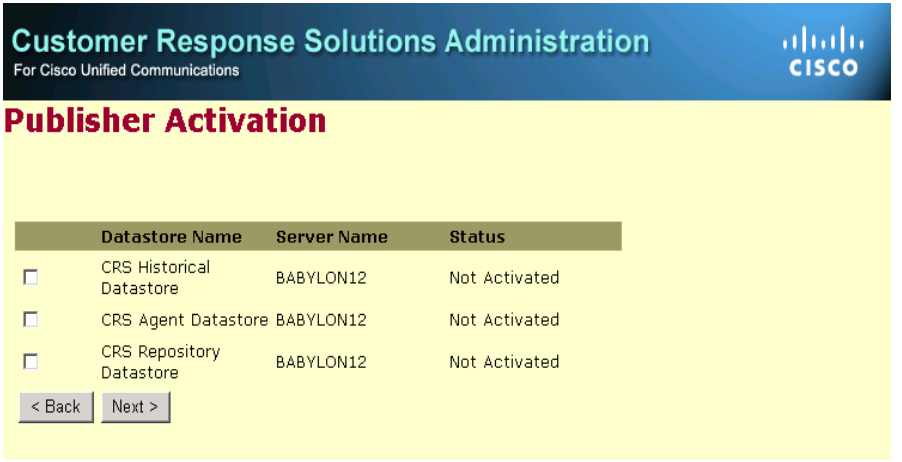
b. Click **Next**.

CRS activates the components that you selected. This process can take several minutes.

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

If you did not select the datastore components, the Unified CM Configuration page appears, as shown in Figure 7-15. Go to Step 8.

Figure 7-14 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.

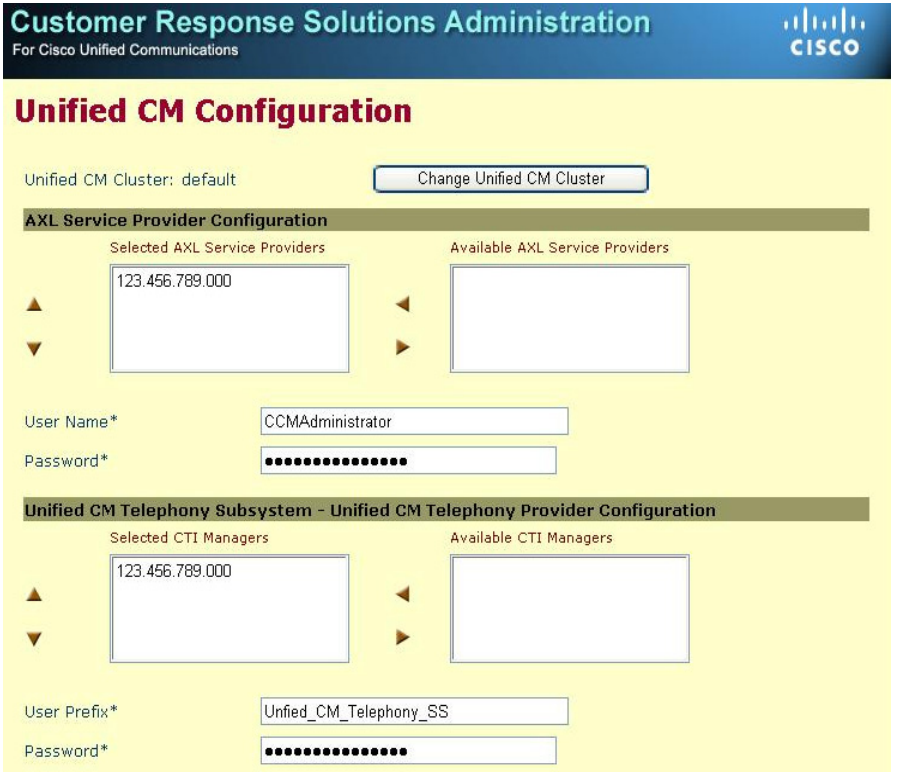
If you want the other server in the cluster to be the database publisher, do not check any check boxes in this page.

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

b. Click **Next**.

The Unified CM Configuration page appears. Figure 7-15 shows part of this page.

Figure 7-15 Unified CM Configuration Page, Partial View



Step 8 In the Unified CM Configuration page:

a. In the AXL Service Provider Configuration area, move the IP address of the 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 4.

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 appears.

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 Unified CM Telephony Subsystem - Unified CM Telephony Provider Configuration area, move the IP address of the Unified CM server that you want to use as the CTI provider for the 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 Unified CM Telephony Subsystem - Unified CM Telephony Provider Configuration area, enter an application user name for the Unified CM Telephony subsystem.

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

g. In the RmCm Subsystem - RmCm Provider Configuration area, move the IP address of the 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 CRS 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.

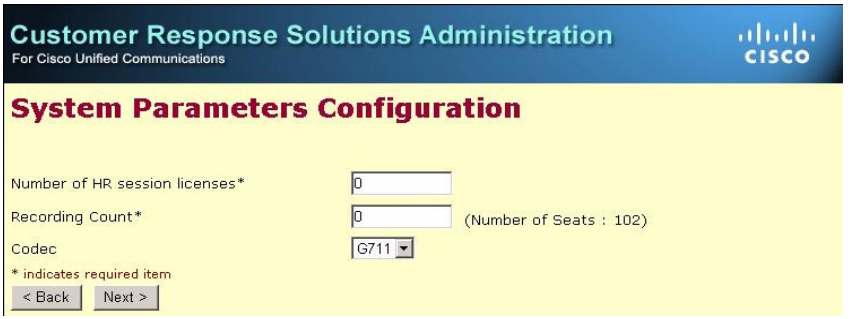
i. In the Password and Confirm Password fields in the Unified Telephony Subsystem - Unified CM Telephony Provider Configuration area, enter a password for the RmCm subsystem application user.

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 appears, as shown in Figure 7-16.

Figure 7-16 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 CRS 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.

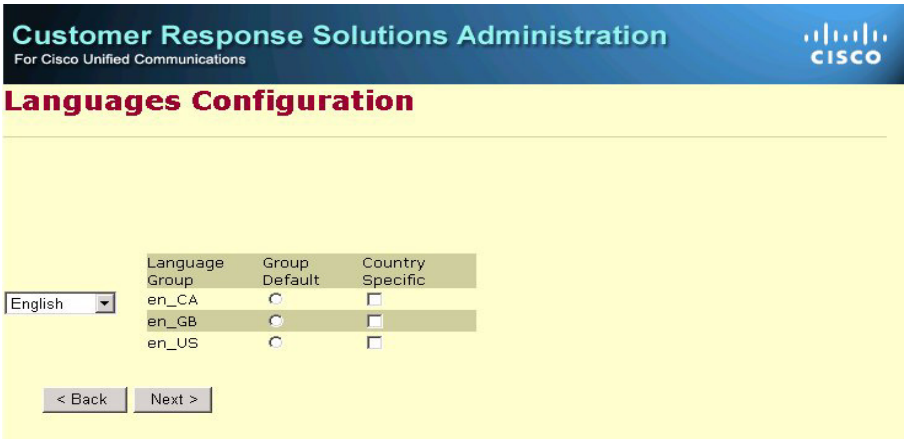
This field appears only if you have a Unified CCX license.

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

d. Click **Next**.

The Languages Configuration page appears, as shown in Figure 7-17.

Figure 7-17 Languages Configuration Page



Step 10 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 appears 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 appears, as shown in Figure 7-18.

Figure 7-18 User Configuration Page

Step 11 In the User Configuration page:

a. In the **CMUsers** list box, select the Unified CM user that you want to designate as the CRS 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**.

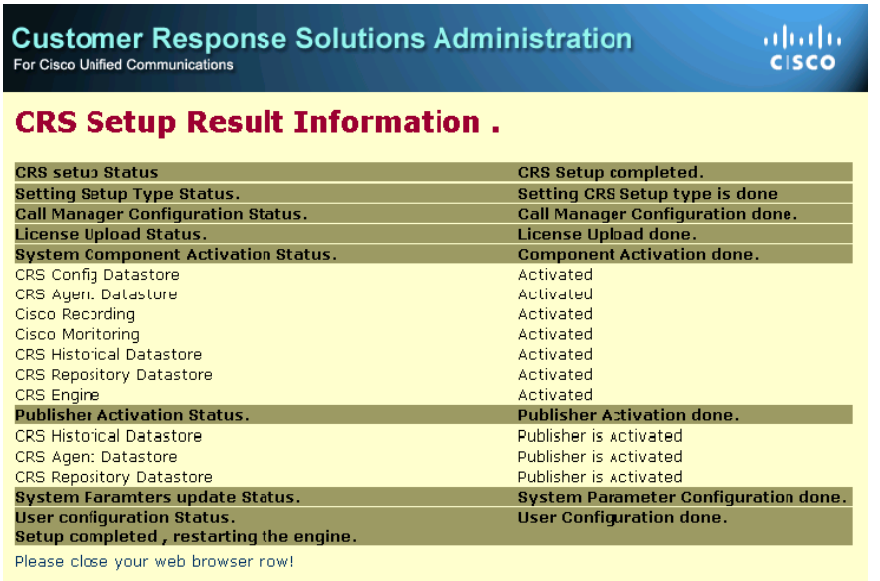
b. Click the left arrow (<) to move the selected user to the CRS Administrator list box.

c. Click **Finish**.

The CRS Setup Result information appears, as shown in Figure 7-19. 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 to *Cisco CAD Installation Guide* for detailed information about using this tool.

Figure 7-19 CRS Setup Result Information Page



Step 12 Exit your web browser.

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

Now you are ready to configure the second node as described in the "Performing the Add to Cluster Setup Procedure for a Deployment with Unified CM" section on page 7-25.

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

When you access CRS Administration for the first time as described in the "Accessing CRS Administration" section on page 7-3, the system automatically initiates the initial setup procedure.

If you are deploying CRS with Unified CM, perform the setup procedure that is described in this section. You perform this procedure one time to provide information about the CRS cluster and other system parameters. You also perform this procedure if you are restoring Cisco CRS 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, review the information in the "Obtaining License Files" section on page 3-8.

After you complete this setup procedure, refer "Performing the Restore Setup Procedure" section on page 7-32 to restore the backed-up CRS data.

To perform the initial setup, follow these steps:

Procedure

Step 1 Access CRS Administration as described in the "Accessing CRS Administration" section on page 7-3.

The Cisco CRS Administrator Setup page appears, as shown in Figure 7-20. In addition, a pop-up window prompts you to disable the Cisco Security Agent before you proceed.

Figure 7-20 Cisco CRS Administrator Setup Page

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

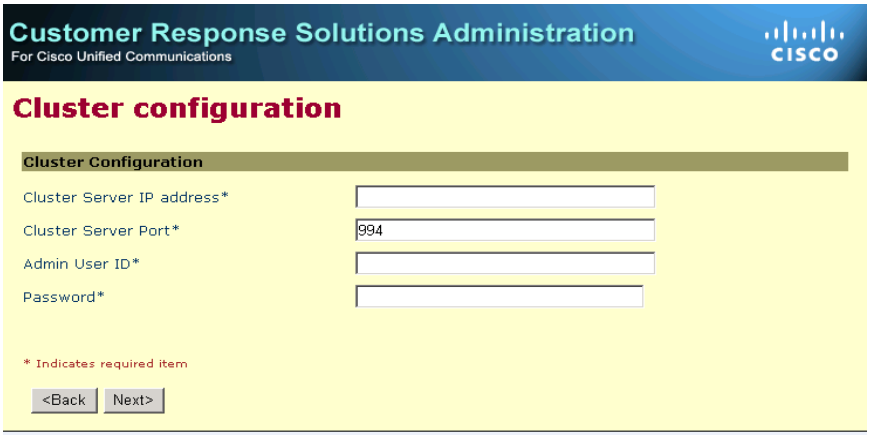
Step 3 In the Cisco CRS Administrator Setup page, take these actions:

a. From CRS Setup drop down list, choose **Add to Cluster**.

b. Click the **Setup** button.

The Cluster Configuration page appears, as shown in Figure 7-21.

Figure 7-21 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 that you set up as described in the "Performing First Node Setup Procedure for a Deployment with Unified CM" section on page 7-13.

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

c. In the CRS Administrator User ID field:

- If you are performing this procedure as part of a new installation of Cisco CRS, enter the ID of the user that you designated as the CRS 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:

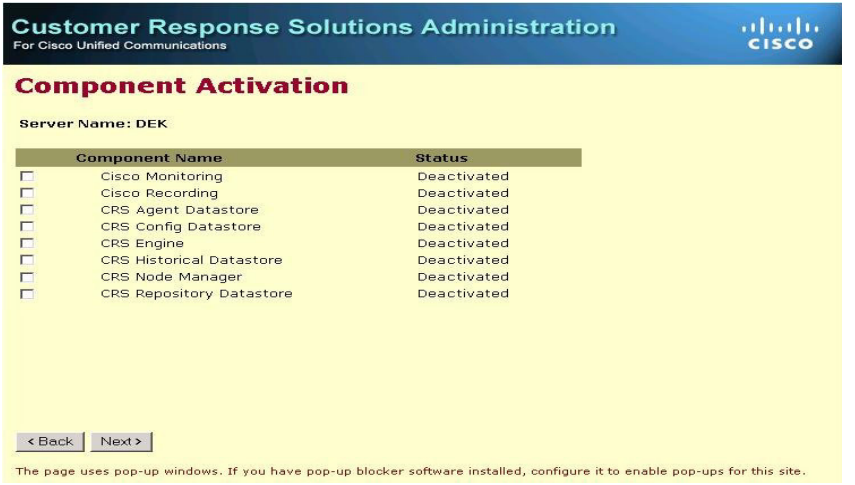
- If you are performing this procedure as part of a new installation of Cisco CRS, enter the password of the user that you designated as the Cisco CRS administrator when you set up the first node in the cluster.
- If you are performing this procedure as instructed by the Restore setup procedure, enter **ciscocisco**.

e. Click **Next**.

If you are performing this procedure as part of a new installation of Cisco CRS, the Component Activation page appears, as shown in Figure 7-22. Continue to Step 5.

If you are performing this procedure as instructed by the Restore setup procedure, you are prompted to exit the browser and continue with the restore procedure on the first node. Exit the web browser on this server and go to Step 8 in the "Performing the Restore Setup Procedure" section.

Figure 7-22 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 to *Cisco CRS 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.
- **CRS Agent Datastore, CRS Config Datastore, CRS Historical Datastore, CRS Repository Datastore**—Enables the Database component on this server. If you have a Unified CCX license, check all of these check boxes. If you have a Unified IP IVR license, check all of these check boxes except CRS Agent Datastore, which is not used.
- **CRS Engine**—Enables the Cisco CRS Engine component on this server.
- **CRS 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.

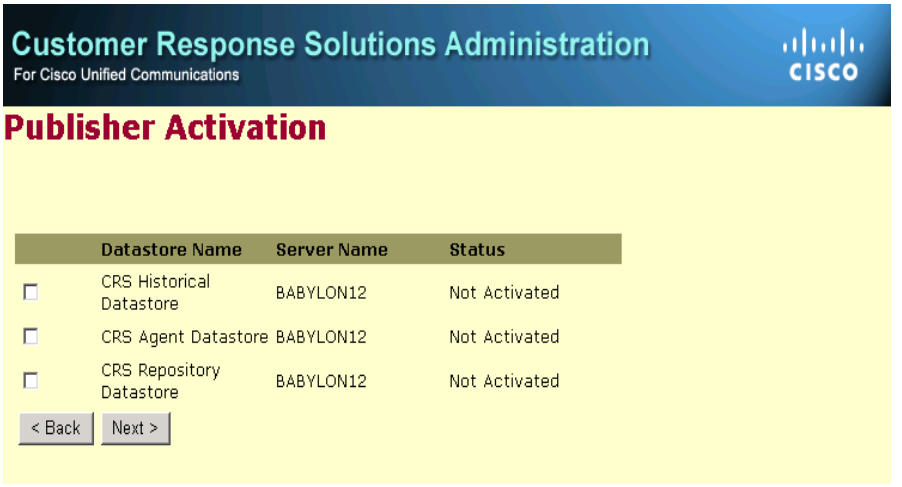
b. Click **Next**.

CRS activates the components that you selected. This process can take several minutes.

c. If you selected the datastore components (CRS Agent Datastore, CRS Config Datastore, CRS Historical Datastore, CRS Repository Datastore), and if you did not configure the first node in the cluster as the publisher, the Publisher Activation page appears. This page shows the datastores that you selected, as shown in Figure 7-23. Continue to Step 6.

If you did not select the datastore components, the CRS Setup Result Information Page page appears, as shown in Figure 7-24. This page confirms the results of the initial set up on the second node in a cluster. Go to Step 7.

Figure 7-23 Publisher Activation Page



Step 6 In the Publisher Activation page:

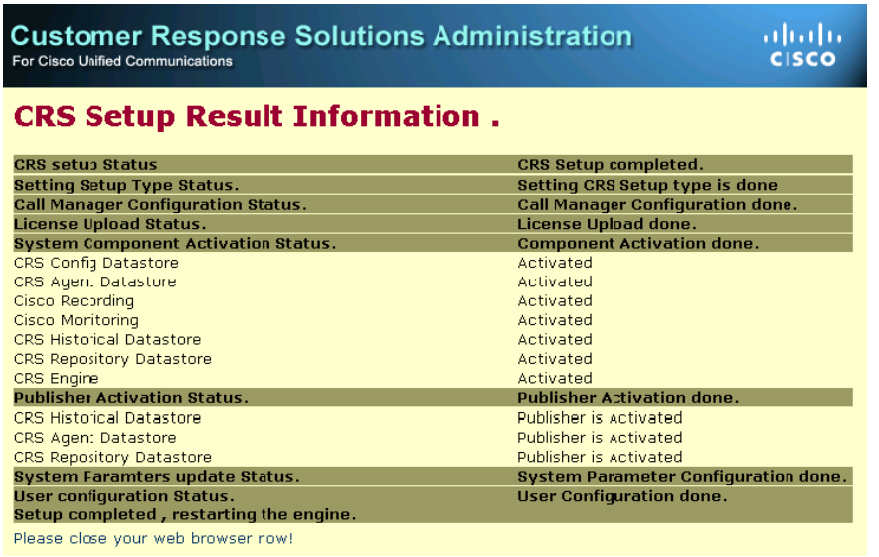
a. Check the check boxes for each datastore if you have not done so in the first node installation.

This server will be the database publisher.

b. Click **Next**.

The CRS Setup Result Information page appears, as shown in Figure 7-24. This page confirms the results of the initial set up on the second node in a cluster.

Figure 7-24 CRS Setup Results Information Page



Step 7 Exit your web browser.

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

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

Performing the Restore Setup Procedure

When you access CRS Administration for the first time as described in the "Accessing CRS Administration" section on page 7-3, 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 CRS 5.0(2) or if you are reinstalling CRS 5.0(2) after backing up the CRS data and re-imaging the server. You perform this procedure one time to restore backed up CRS data and provide information about various system parameters.

During this procedure, you are prompted whether you want to perform the Unified CM Telephony synchronization. This process reconfigures route points and CTI ports as they are configured in your CRS 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, make sure to perform the synchronization process later using CRS Administration. The 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 CRS Administration Guide*. These sections provide important notes, tips, and cautions.
  - "Guidelines and Requirements"
  - "Performing a Restore Operation"
- Review the information in the "Obtaining License Files" section on page 3-8. If you are upgrading from CRS 4.5, copy your 5.0(2) license files to a directory on the CRS server. Make a note of this directory name and location.
- If you are upgrading from CRS 4.5, perform the following steps to temporarily reconfigure 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. 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 Unified CM Administration and take these actions:
  b. Choose **Service > Service 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 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:

Procedure

Step 1 Access CRS Administration as described in the "Accessing CRS Administration" section on page 7-3.

The Cisco CRS Administrator Setup page appears, as shown in Figure 7-25. In addition, a pop-up window prompts you to disable the Cisco Security Agent before you proceed.

Figure 7-25 Cisco CRS Administrator Setup Page

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

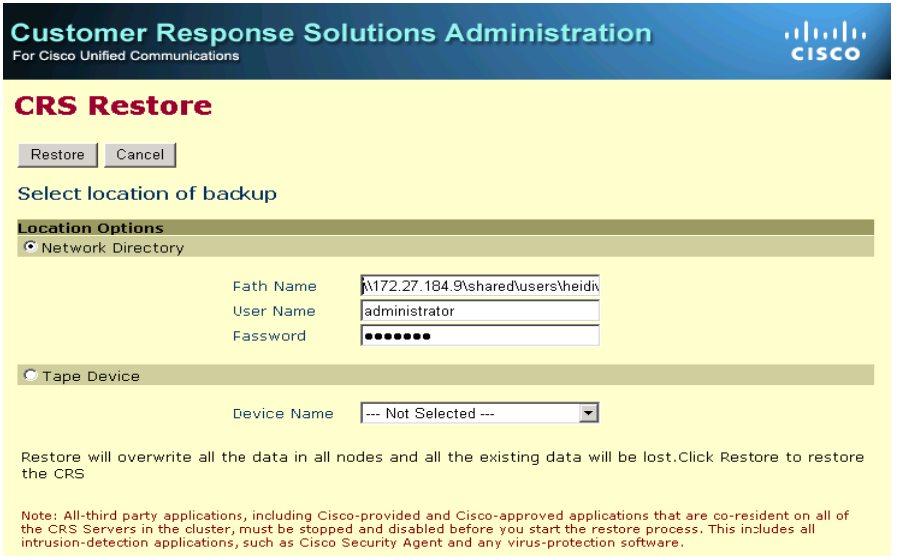
Step 3 In the Cisco CRS Administrator Setup page, take these actions:

a. From CRS Setup drop down list, choose **Restore**.

b. Click the **Setup** button.

The CRS Restore page appears, as shown in Figure 7-26.

Figure 7-26 CRS Restore Page



Step 4 In the CRS Restore Page:

a. Click the radio button (**Network Directory** or **Tape Device**) that corresponds to the location of your CRS 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 CRS Restore Wizard page appears.

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

Step 5 In the Cisco CRS Restore Wizard page, click **Next**.

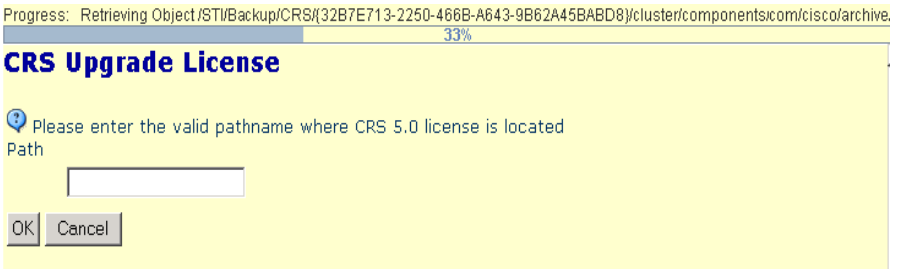
The restore process begins. A status page shows the progress of the restore. The time that this process takes depends on the size of your CRS database.

If you are performing this procedure while upgrading from CRS 4.5, the CRS Upgrade License page appears, as shown in Figure 7-27. In this case, continue to Step 6.

If you are performing this procedure after reinstalling CRS in a deployment with one node, you are prompted whether you want to perform the Unified CM Telephony synchronization. In this case, go to Step 8.

If you are performing this procedure after reinstalling CRS 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" section on page 7-25. When you complete that procedure, this restore setup procedure continues and you are prompted whether you want to perform the Unified CM Telephony synchronization. Go to Step 8.

Figure 7-27 CRS Upgrade License Page



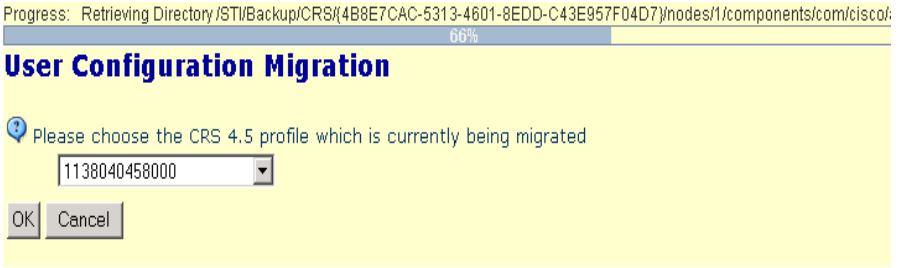
Step 6 In the CRS Upgrade License page:

a. Enter the path and file name of the CRS 5.0(2) 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 appears, as shown in Figure 7-28.

Figure 7-28 User Configuration Migration Page



Step 7 In the User Configuration Migration page:

a. From the drop-down list, choose the CRS 4.5 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 CRS database. When the restore process completes, you are prompted whether you want to perform the Unified CM Telephony synchronization. The synchronization process reconfigure route points and CTI ports as they are configured in your CRS backup.

Note 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, make sure to perform the synchronization process later using CRS Administration.

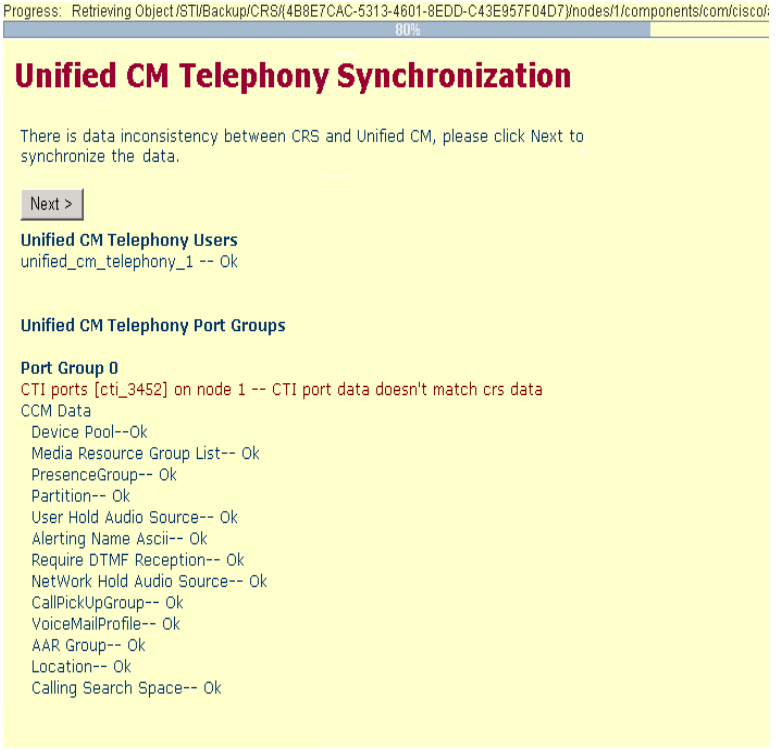
Step 8 Take one of these actions:

- If you want to perform the synchronization process now, click **Continue**. In this case, the Unified CM Telephony Synchronization page appears, as shown in Figure 7-29. Continue to Step 9
- If you do not want to perform the synchronization process now, click **Skip**. In this case, the following message appears:

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

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

Figure 7-29 Unified CM Telephony Synchronization Page



Step 9 In the Unified CM Telephony Synchronization page, click **Next**.

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

Step 10 When the synchronization process completes, click **Done** in the Unified CM Telephony Synchronization page.

When the upgrade completes, the following message appears:

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

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

Performing the Initial Setup Procedure for a Deployment with Unified CME

When you access CRS Administration for the first time as described in the "Accessing CRS Administration" section on page 7-3, the system automatically initiates the initial setup procedure.

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

Before you begin the setup procedure, review the information in the "Obtaining License Files" section on page 3-8

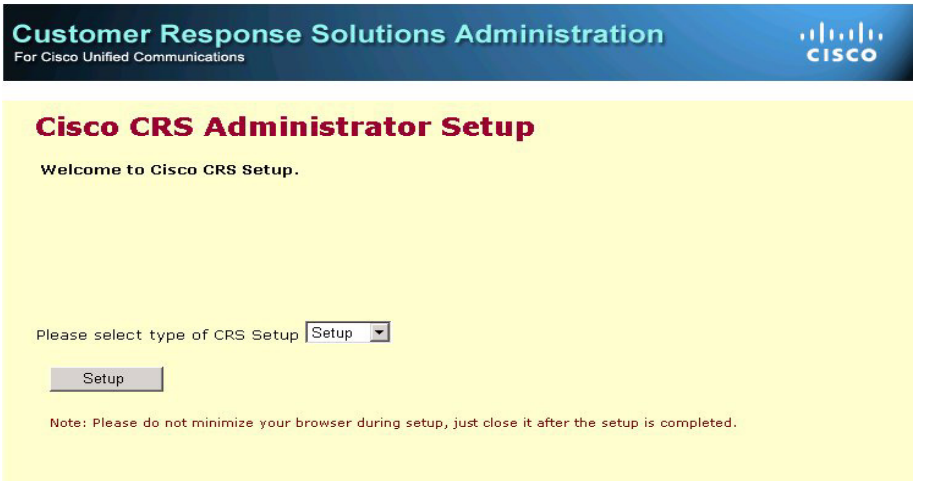
To perform the initial setup, follow these steps:

Procedure

Step 1 Access CRS Administration as described in the "Accessing CRS Administration" section on page 7-3.

The Cisco CRS Administrator Setup page appears, as shown in Figure 7-30. In addition, a pop-up window prompts you to disable the Cisco Security Agent before you proceed.

Figure 7-30 Cisco CRS Administrator Setup Page



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

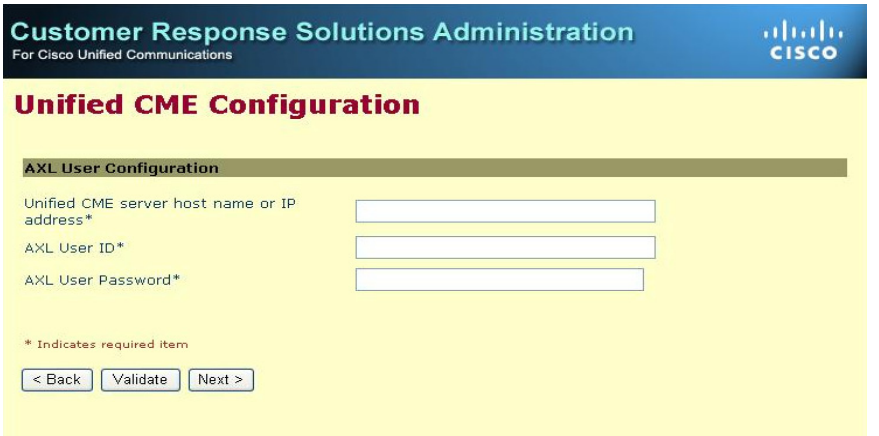
Step 3 In the Cisco CRS Administrator Setup page, take these actions:

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

b. Click the **Setup** button.

The Unified CME Configuration page appears, as shown in Figure 7-31.

Figure 7-31 Unified CME Configuration Page



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

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

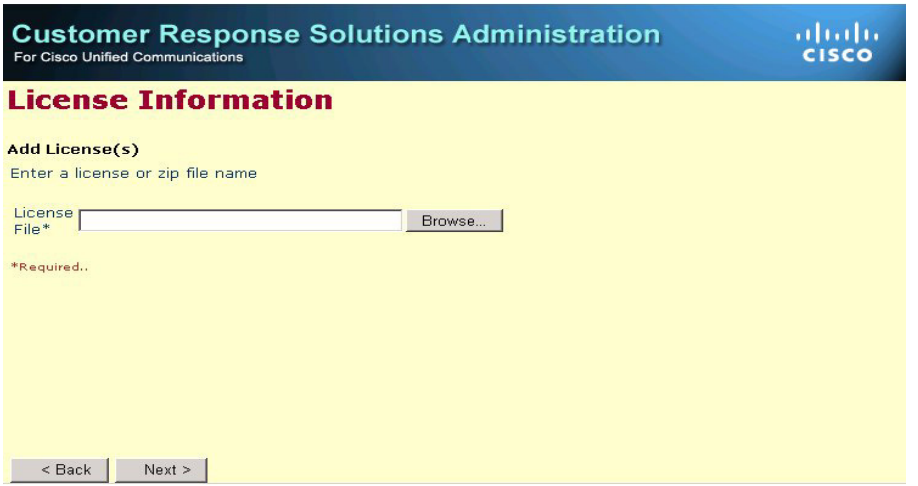
b. In the AXL User ID field, enter the AXL user ID that you created in Unified CME.

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

d. Click **Next**.

The License Information page appears, as shown in Figure 7-32.

Figure 7-32 License Information Page



Step 5 In the License Information page:

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

b. Click **Next**.

The License Information page appears 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 appears 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**.

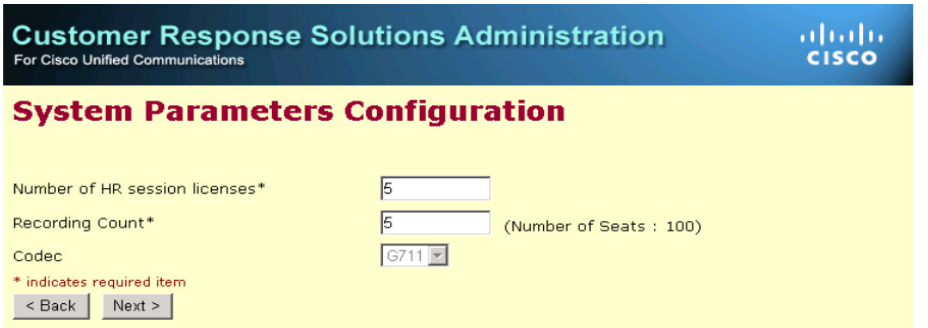
The System Component Activation Completed page appears, as shown in Figure 7-33.

Figure 7-33 System Component Activation Completed Page

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

The System Parameters Configuration page appears, as shown in Figure 7-34.

Figure 7-34 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 CRS 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.

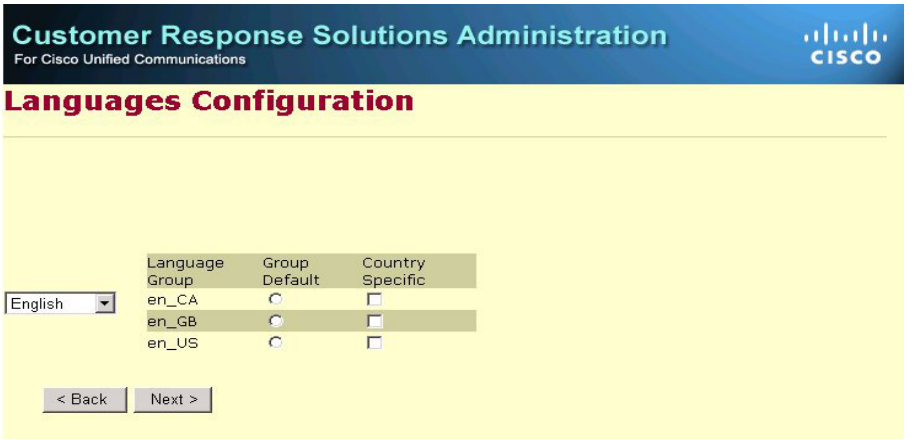
This field appears only if you have a Unified CCX license.

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

c. Click **Next**.

The Languages Configuration page appears, as shown in Figure 7-35.

Figure 7-35 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 appears in the Language Selection area.

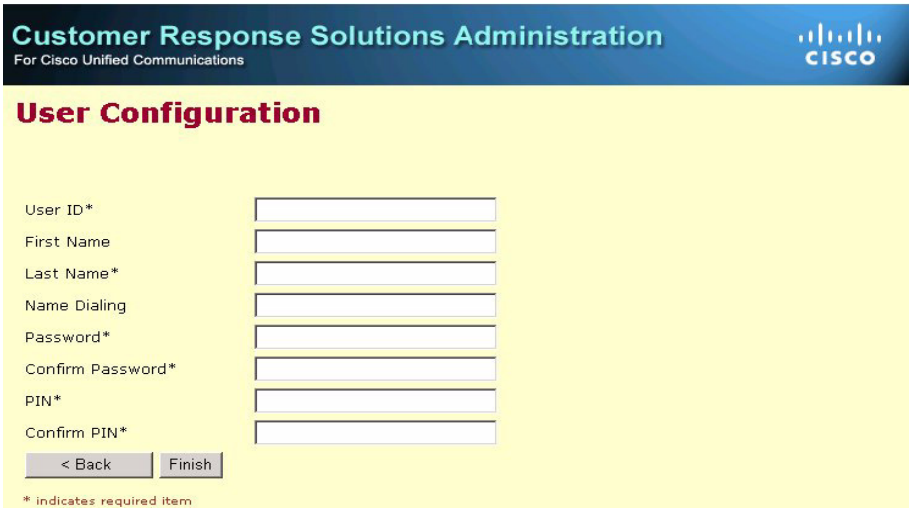
b. If you will create a custom country-specific language, check the **Group Default** check box next to a language to use as a base for your custom country-specific language.

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 appears, as shown in Figure 7-36.

Figure 7-36 User Configuration Page



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

a. In the User ID field, enter a user ID for the CRS 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.

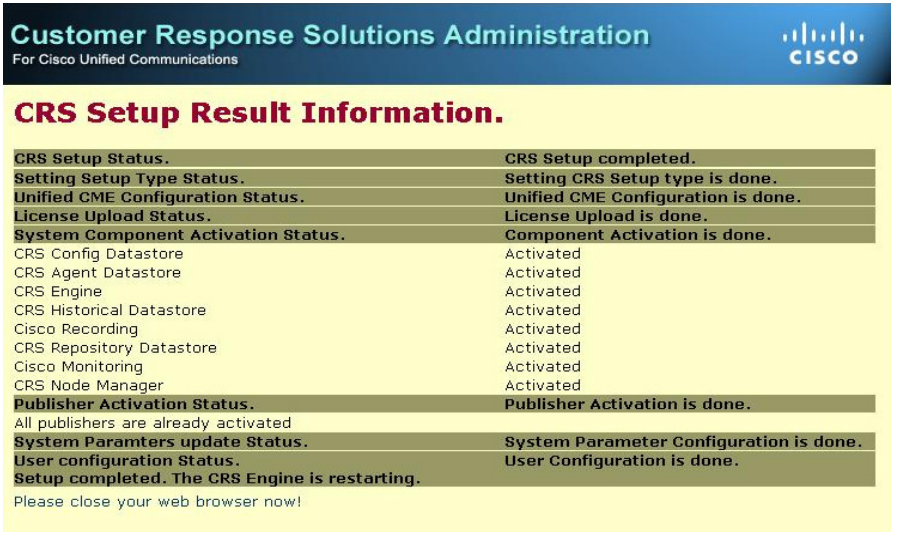
h. In the Confirm PIN field, enter the PIN again.

i. Click **Finish**.

The CRS Setup Result information appears, as shown in Figure 7-37. This window confirms the results of the initial set up.

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

Figure 7-37 CRS Setup Result Information Page



Step 10 Exit your web browser.

You have completed the initial setup of CRS. To change and of the configuration settings that you made or to perform additional configuration activities, refer to *Cisco CRS Administration Guide*.

CHAPTER 8

Repairing CRS

This chapter provides instructions for performing the CRS 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 CRS data that has been generated since the last successful backup.

This chapter includes the following section:

- Performing the Repair Procedure, page 8-1

Performing the Repair Procedure

Procedure

Step 1 Log into Windows as the Administrator.

Step 2 Insert the CRS DVD.

If the Cisco Customer Response Solutions Installation Wizard does not start automatically, navigate to the root folder on the DVD and click **CRSAutorun.exe**.

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

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

The CRS Installer performs a series of checks and processes.

After a few moments, the Welcome window appears, as shown in Figure 8-1.

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 CRS Installer procedure that you are performing
and can cause the system to become unrecoverable.
```

Figure 8-1 Welcome Window

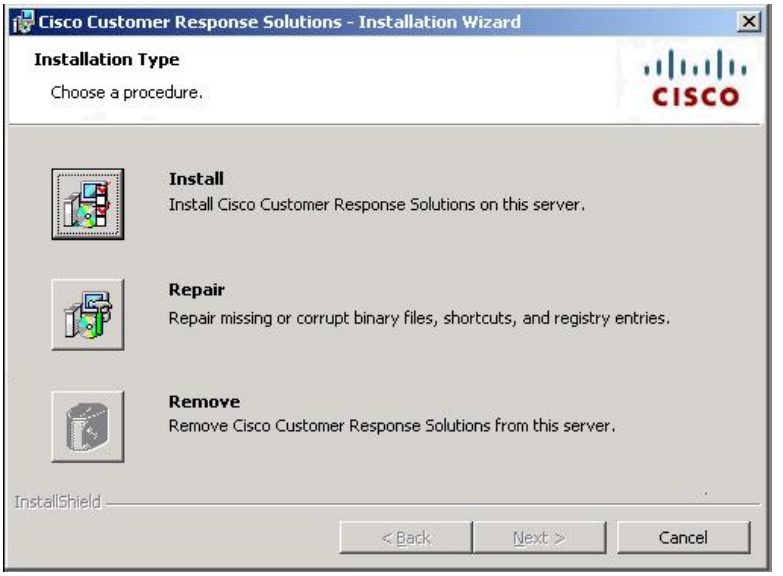
Step 4 Make sure that all virus control software is disabled and click **OK** in the pop-up window.

Step 5 In the Welcome window, click **Next**.

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

The Installation Type window appears, as shown in Figure 8-2.

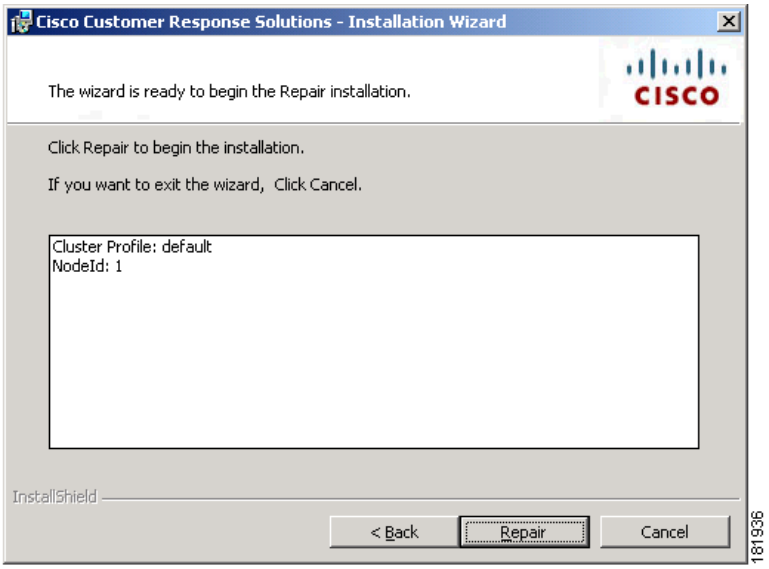
Figure 8-2 Installation Type Window



Step 6 In the Installation Type window, click **Repair**.

A window appears that informs you that the wizard is ready to begin, as shown in Figure 8-3.

Figure 8-3 Installation Type Window

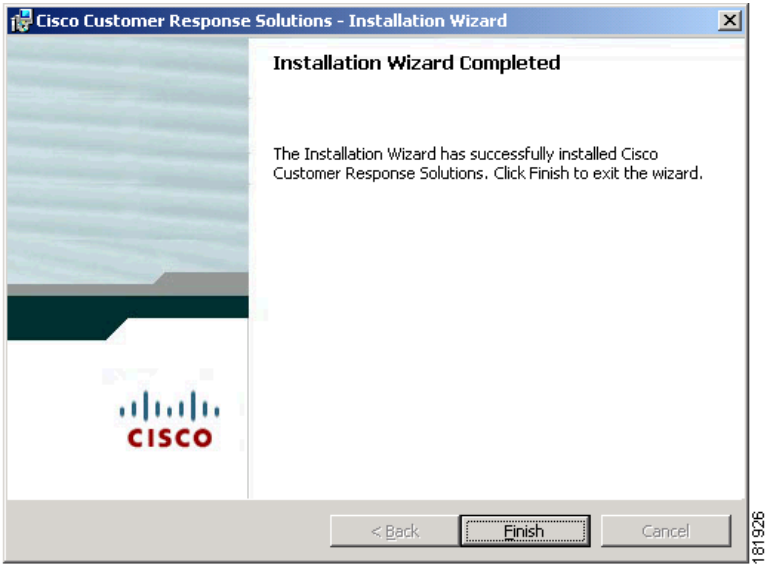


Step 7 Click **Repair**.

The repair process begins. This process includes reinstalling CRS components. A status window displays the progress.

When the process completes, the Installation Wizard Completed window appears, as shown in as shown in Figure 8-4.

Figure 8-4 Installation Wizard Completed Window



Step 8 In the Installation Completed Window, click **Finish**.

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

Step 9 Click **Yes** to restart the system.

After the system restarts, you can start CRS Administration and make sure that the system is operating properly.

CHAPTER 9

Patching CRS

Cisco provides patches for CRS 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 CRS software.

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

For ongoing system management, regularly verify that you have installed the latest CRS patch.

This chapter includes the following sections:

- Patching Overview, page 9-1
- Obtaining a Patch, page 9-4
- Before You Begin, page 9-4
- Installing or Reinstalling a Patch, page 9-5
- Uninstalling a Patch, page 9-8

Patching Overview

Cisco Systems, Inc. follows a standard naming convention for service releases and engineering specials, as explained in Table 9-1.

Table 9-1 Naming Conventions for CRS Patches

Convention	Explanation	Example
Naming convention for service releases: *CRS_release*SR*nn*	• *CRS_release*—CRS base release, which is the version of CRS with which the service release is compatible • *nn*—Release number of the service release	5.0(1)SR01 Meaning: Service Release 01 for CRS 5.0(1)
Naming convention for engineering specials: *CRS_release*SR*nn*ES*xx*	• *CRS_release*—CRS base release, which is the version of CRS 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	5.0(1)SR02ES01 Meaning: Engineering Special 01 for Service Release 02 for CRS 5.0(1)

Typically, a service release or an engineering special is compatible with a specific version of CRS. Table 9-2 describes the guidelines for determining the compatibility of a patch.

Table 9-2 Compatibility Guidelines CRS Patches

Guideline	Examples
A service release can be applied only to its corresponding Cisco CRS base release	• 5.0(1)SR01 can be applied to CRS 5.0(1) • 5.0(2)SR01 can be applied to CRS 5.0(2). • 5.0(2)SR01 cannot be applied to CRS 5.0(1)
A service release can be applied to its corresponding CRS base release if a previous service release has been applied, but not if a newer service release has been applied	• 5.0(1)SR02 can be applied if 5.0(1)SR01 has already been applied • 5.0(2)SR02 can be applied if 5.0(2)SR01 has already been applied • 5.0(1)SR02 cannot be applied if 5.0(1)SR03 has already been applied

Table 9-2 Compatibility Guidelines CRS Patches (continued)

Guideline	Examples
A service release can be applied if an engineering special has already been installed, but the engineering special will be removed automatically	• 5.0(1)SR02 can be applied if 5.0(1)SR01ES01 is installed, but 5.0(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)	• 5.0(1)SR02ES01 can be applied if 5.0(1)SR02 has already been applied • 5.0(2)SR02ES01 can be applied if 5.0(2)SR02 has already been applied • 5.0(1)SR02ES01 cannot be applied directly to Cisco CRS 5.0(1) (you must first apply 5.0(1)SR02)
An engineering special that has 00 for its compatible service release can be applied directly to the CRS base release	• 5.0(1)SR00ES02 can be applied directly to CRS 5.0(1)
An engineering special can be applied to an older engineering special only if they have the same CRS base release and service release	• 5.0(1)SR01ES02 can be applied if 5.0(1)SR01ES01 has already been applied • 5.0(1)SR01ES02 cannot be applied if 5.0(1)SR01ES03 has already been applied • 5.0(1)SR02ES02 cannot be applied if 5.0(1)SR01ES01 has already been applied

Obtaining a Patch

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

To download a CRS patch, follow these steps:

Procedure

Step 1 Go to this URL:

http://www.cisco.com/kobayashi/sw-center/sw-voice.shtml

Step 2 Locate and double-click the desired Cisco CRS 5.0(2) patch .exe file, and follow the prompts to download that file.

Step 3 Go back to the URL shown in Step 1, locate and double-click the Read Me file for the desired CRS 5.0(2) 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 unsintall a CRS patch:

- Perform a full backup of your CRS 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 CRS 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 CRS, perform the following steps. If your CRS deployment includes a high availability server, perform these steps on the active CRS 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 9-4 before you start this procedure.

Procedure

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

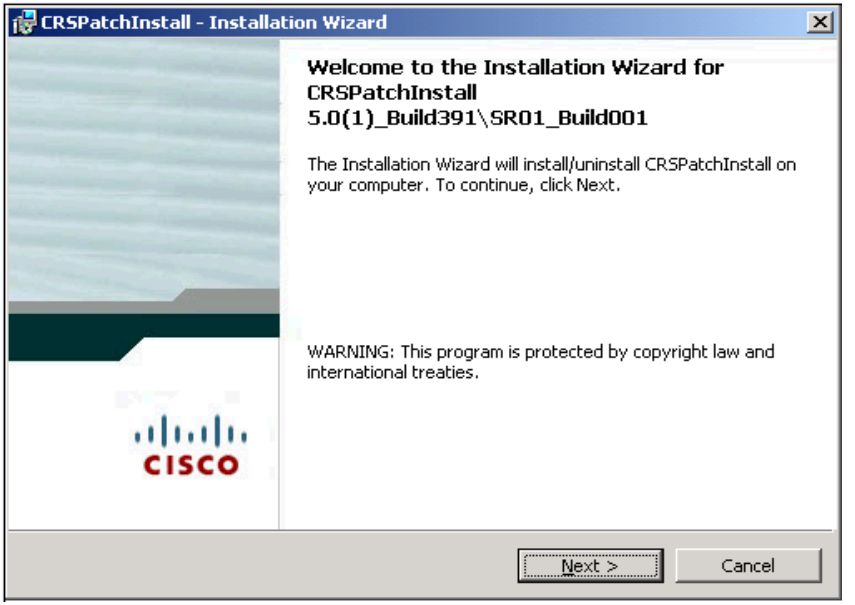
If you have previously started or completed installation of this patch, the Overwrite Protection dialog box appears. Click **Yes to All** to continue.

The CRS Patch Installation Wizard starts and a dialog box prompts you to exit any open Internet Explorer windows.

Step 2 Exit any Internet Explorer windows that are open and click **OK**.

The Welcome to the Installation Wizard window appears, as shown in Figure 9-1.

Figure 9-1 Welcome to the Installation Wizard Window

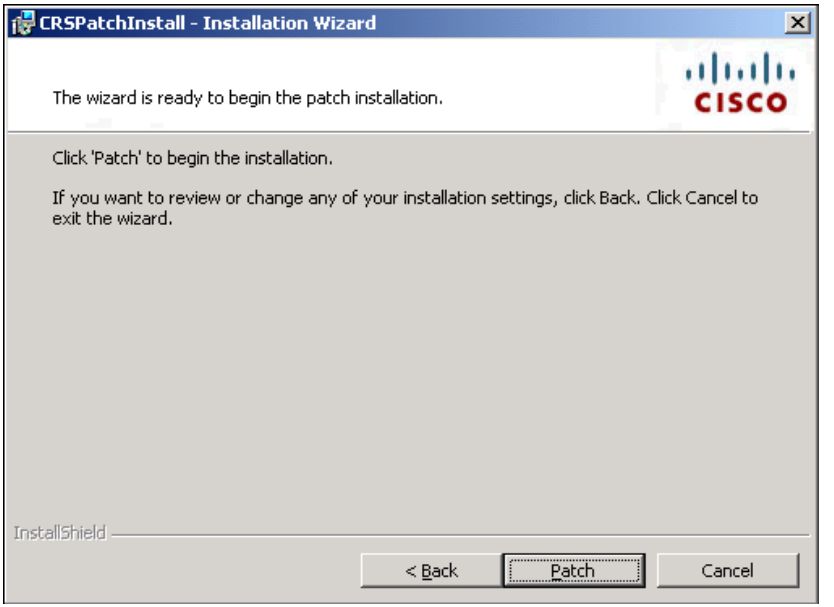


Step 3 In the Welcome to the Installation Wizard window, click **Next**.

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

The Ready to Begin the Patch Installation window appears, as shown in Figure 9-2.

Figure 9-2 Ready to Begin the Patch Installation Window

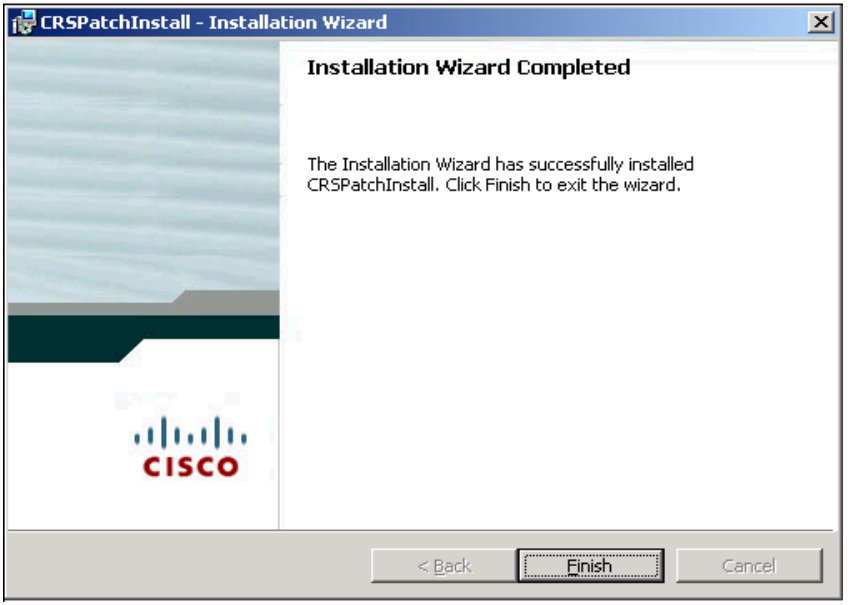


Step 4 In the Ready to Begin the Patch Installation window, click **Patch**.

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

When the patch install completes, the Installation Wizard Completed window appears, as shown in Figure 9-3.

Figure 9-3 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 CRS patch, perform the following steps. If your CRS deployment includes a high availability server, perform these steps on the active CRS 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 9-4 before you start the uninstall procedure.

Procedure

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

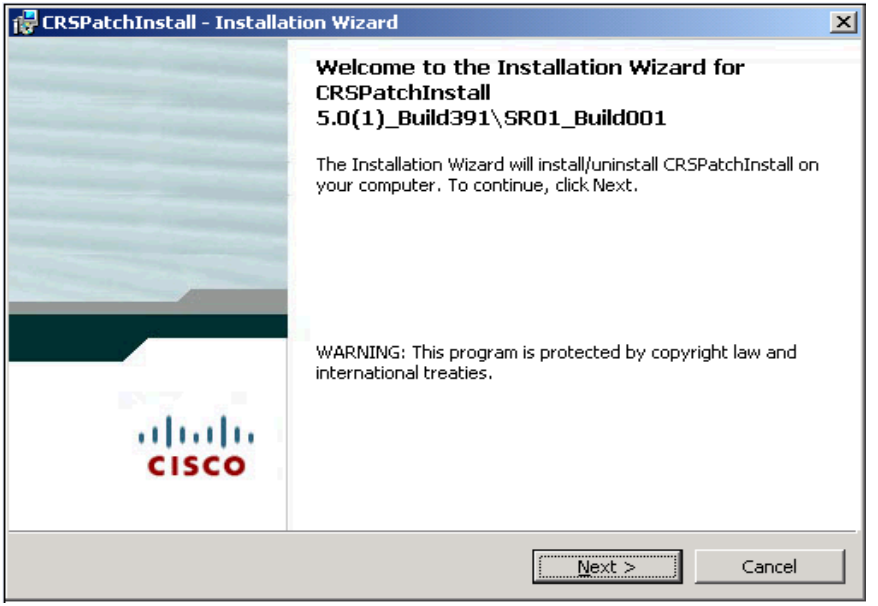
Step 2 In the Overwrite Protection dialog box, click **Yes to All**.

The CRS Patch Installation Wizard starts and a dialog box prompts you to exit any open Internet Explorer windows.

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

The Welcome to the Installation Wizard window appears, as shown in Figure 9-4.

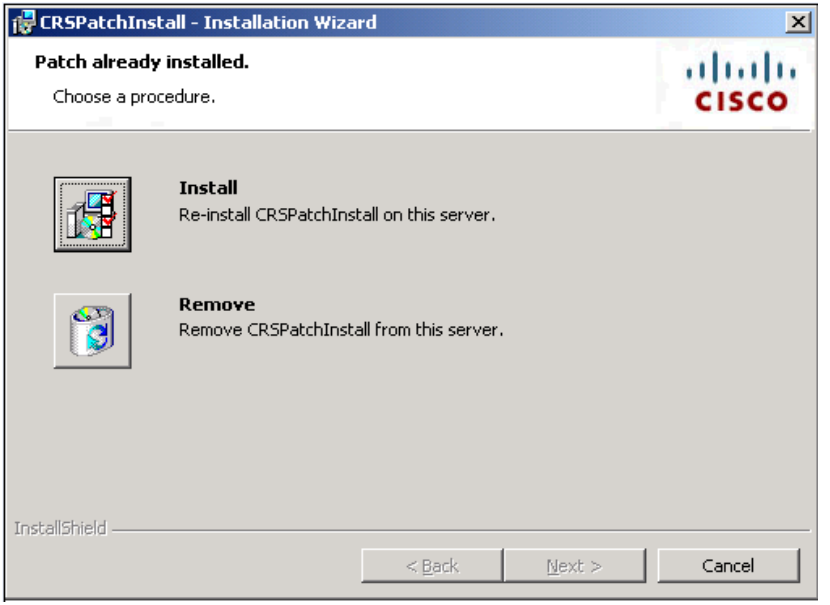
Figure 9-4 Welcome to the Installation Wizard Window



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

The Patch Already Installed window appears, as shown in Figure 9-5.

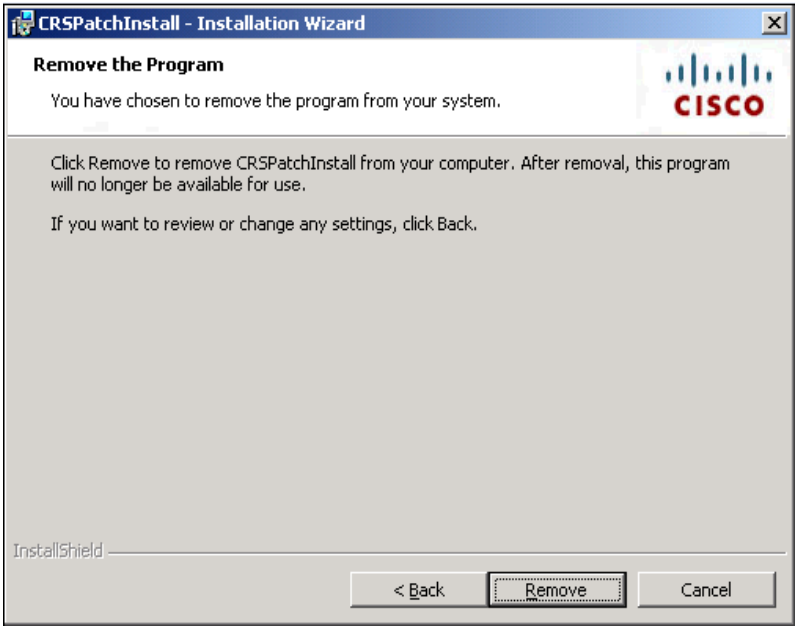
Figure 9-5 Patch Already Installed Window



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

The Remove the Program window appears, as shown in Figure 9-6.

Figure 9-6 Remove the Program Window

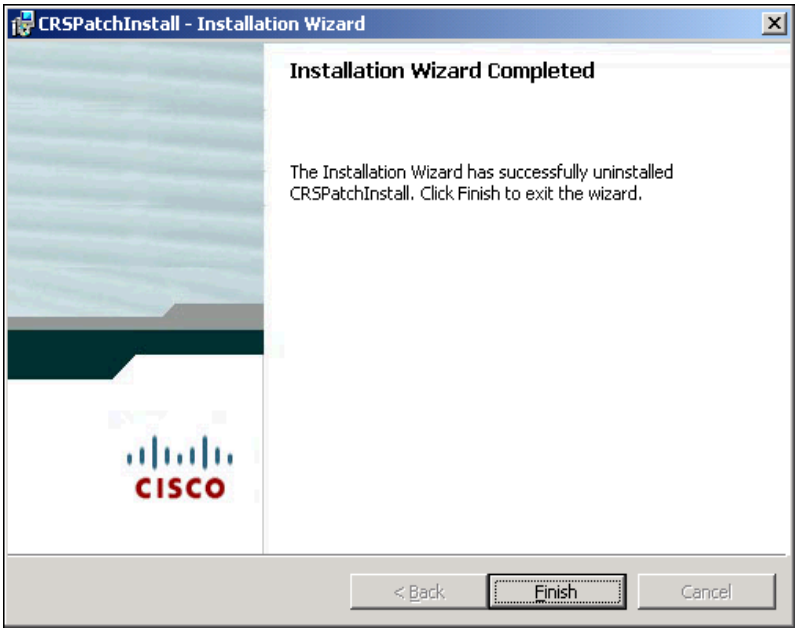


Step 6 In the Remove the Program window, click **Remove**.

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

When the uninstall completes, the Installation Wizard Completed window appears, as shown in Figure 9-7.

Figure 9-7 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 10

Changing Your CRS Deployment

This chapter describes the general procedures you can use to make changes to your CRS deployment. Changes you can make include adding or removing CRS 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 CRS deployment, see Chapter 2, "CRS Deployment Options."

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

This chapter includes the following sections:

- Replacing a CRS Server, page 10-2
- Changing Other Deployment Settings, page 10-3
- Saving Recording Files When You Change a Deployment, page 10-4

Replacing a CRS Server

If you need to replace a CRS 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 to *Cisco CRS Administration Guide*.
Step 3	Back up your CRS data	Refer to the documentation for your backup and restore system
Step 4	Remove the server that you are replacing from the cluster.	Refer to *Cisco CRS 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 3-4
Step 7	Connect the new server to the network	See the "Connecting a Server to the Network" section on page 3-5.
Step 8	Configure the new server with the same host name and IP address as the server that you are replacing	Refer to your Windows network documentation.
Step 9	Install CRS	See Chapter 4, "Installing CRS"
Step 10	If you are replacing a server in a two-node deployment, add the server to the cluster.	Refer to *Cisco CRS Administration Guide*.
Step 11	Perform the restore procedure on the new server	See Chapter 8, "Repairing CRS"

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 to *Cisco CRS Administration Guide*.
Changing IP address of a server.	Refer to *Cisco CRS Administration Guide*.
Changing the language for the Cisco Agent Desktop or the Cisco Supervisor Desktop	See Chapter 4, "Installing CRS."
Changing a deployment from Cisco Unified Communications Manager (Unified CM) to Cisco Unified Communications Manager Express (Unified CME)	See Chapter 4, "Installing CRS."
Changing a deployment from Unified CME to Unified CM	See Chapter 4, "Installing CRS."
Upgrading database type from MSDE 2000 to MS SQL Server 2000. **Note** User data that is stored in the CRS database is preserved when you upgrade the database type.	Refer to the *MS SQL Server 2000 for Cisco CRS* Resources Card.

Saving Recording Files When You Change a Deployment

Some changes to a CRS deployment require you to uninstall CRS from a server on which you have installed the Recording component. In this case, save your recording files before you uninstall CRS. For instructions, refer to *CAD Installation Guide, IP Contact Center Express Edition 6.2(0)*.

CHAPTER 11

CRS Installer Messages and Log Files

This chapter provides information about error messages and instructional messages that may appear when you run the CRS 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 CRS Installer messages.

This chapter includes the following sections:

- CRS Installer Messages, page 11-1
- CRS Installer Log Files, page 11-9

CRS Installer Messages

This section describes the messages that the CRS 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 the Cisco Technical Assistance Center (TAC).

`A fatal error occurred during the initialization of product. Installation will now abort.`

Explanation An internal system error occurred.

Recommended Action Contact the Cisco TAC.

`A fatal error occurred during the JRE installation of product. Installation will now abort.`

Explanation The CRS 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 CRS datastore.

Recommended Action Contact the Cisco TAC.

```
Cisco Customer Response Solutions installation was unable to
stop the World Wide Web Publishing Service (W3SVC).
Installation will now abort.
```

Explanation The CRS 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 the Cisco TAC.

Computer hardware provided by *manufacturer* is required to install *product*. Installation will now abort.

Explanation You are running the Cisco CRS Installer on a computer that is not supported.

Recommended Action Make sure that you are running the CRS Installer on an approved server. For more information, see the "Server Requirements" section on page 3-2.

```
CRS is already installed but repair/upgrade is not possible
since some data are missing. Do you want to go for fresh install
of CRS?
```

Explanation You are attempting to perform a a procedure on a server that has corrupt bootstrap data.

Recommended Action Reinstall CRS.

`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 CRS.

Recommended Action Install CRS 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 CRS Installer through Terminal Services.

Recommended Action Run the CRS 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 CRS 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 CRS database has reached its capacity.

Recommended Action Use the CRS 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 to *Cisco CRS Administration Guide*.

```
Please disable or stop virus control software before proceeding
because it may interfere with the installation of
Cisco Customer Response Solutions.
```

Explanation Reminder to disable or stop virus scanning before running the CRS Installer.

Recommended Action Disable or stop virus scanning and the Cisco Security Agent (CSA) before starting the Cisco CRS Installer. For more information, see the "Disabling Virus Scanning and the Cisco Security Agent" section on page 3-11.

```
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 CRS 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 CRS Installer.
```

Explanation The operating system must be re-imaged for the procedure that you are performing with the CRS Installer to successfully complete.

Recommended Action Re-image the operating system, then run the procedure again.

```
Please upgrade to SQL2k. Then rerun the Cisco CRS 5.0 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 CRS server and reboot that server, then run the procedure again

```
Setup has detected existing CRS 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 CRS and there are CRS 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 Name System (DNS) to make sure that host names and IP addresses can be resolved.

```
The installation program has detected that CRS Editor is
currently running. Please save your changes now and click OK.
The installation program will close CRS Editor and unsaved
changes will be lost.
```

Explanation The CRS Editor is running.

Recommended Action Click **OK** and try the procedure again. If you want to save changes that you made in the CRS 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 the Cisco TAC.

```
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 CRS.

Recommended Action Free up disk sufficient disk space on the server and then run the procedure again. For information about disk usage, see the "CRS Disk Space Usage" section on page 3-10.

```
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 CRS 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 CRS 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 3-4.

```
Cisco Security Agent is not disabled. Please disable CSA and
proceed with the installation. Installation will now abort.
```

Explanation Cisco Security Agent not disabled.

Recommended Action Disable the Cisco Security Agent.

CRS Installer Log Files

CRS creates log files for every procedure that you perform with the Cisco CRS Installer. These files include messages that the CRS Installer generates. If necessary, you can provide the log files to the Cisco TAC 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
- CrsMsiInstallLog.txt
- CrsMsdeInstallLog.txt
- CRSAutorun.log
- UpdateTool.log
- SQLInstallLog.txt
- CRSJREInstallLog.txt
- C:\Documents and Settings\Administrator\Local Settings\Temp\CRSInstallation\logsFromLastRun\CrsInstallLog_*.zip

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