



# **Installing CTRS Administration Software**

October 2011

## **Contents**

- Overview, page 3-1
- Prerequisites, page 3-1
- Preparing an UCS C-210 M2 Server for CTRS Software Installation, page 3-2
- Installing the CTRS Administration Software, page 3-13
- Replacing a Hard Disk Drive, page 3-15

# **Overview**

This chapter explains how to install Cisco TelePresence Recording Server (CTRS) release 1.8 software on the following servers:

- UCS C-210 M2 server
- Cisco MCS-7845-XX-CTRS server, where XX can be I2 or I3

Before installing CTRS software on a UCS C-210 M2 server, you must configure the server and install VMWare. For an MCS-7845-XX-CTRS server, no server preparation is required. You simply install the software on the server.

# **Prerequisites**

Before you install the CTRS administration software system files, you need the following equipment and information:

- Cisco TelePresence System assembled and configured to support TelePresence conferencing. For more information, refer to the appropriate *Cisco TelePresence System Administrator's Guide* and the appropriate *Cisco TelePresence Assembly Guide*.
- Cisco MCS-7845-XX-CTRS server, where XX can be I2 or I3, with eight 146 gigabytes drives, installed and connected to a Domain Name System (DNS) server and your network.
- Console able to access the Cisco MCS-7845-XX-CTRS server, where XX can be I2 or I3.

- DVD that contains the CTRS Administration software application.
- Cisco Unified Communications Manager (Cisco Unified CM) Release 7.0.2, Release 7.1.5, Release 8.5.1, or Release 8.6.1, configured to support CTS Release 1.6 and integrated to work with CTRS, meaning that a SIP security profile, SIP trunk, and route pattern specific to CTRS have been created. For more information about Cisco Unified CM for CTS configuration, refer to Cisco Unified Communications Manager Configuration Guide for the Cisco TelePresence System.



If recording meetings that will include Cisco TelePresence TC version 5.0 endpoints, Cisco Unified CM Release 8.6.1 is required

# Preparing an UCS C-210 M2 Server for CTRS Software Installation

Before installing CTRS administration software on a UCS C-210 M2 server, you must configure and install VMWare on the server. This section is comprised of the following topics:

- Requirements, page 3-2
- Configuring RAID on the UCS Server, page 3-4
- Installing VMware on the UCS Server, page 3-6
- Installing the VMware Client and Creating the Virtual Machine, page 3-7
- Disabling LRO (ESXi 4.1 only), page 3-9
- Importing the OVF Template, page 3-10
- Installing CTRS Software, page 3-11
- Upgrade VMware Tools, page 3-11
- Installing the VMware License, page 3-12

### **Requirements**

Before you begin, make sure you have the following items:

- Hostname and IP address for the VMware ESXi host
- Hostname and IP address for the CTRS
- IP address of DNS server
- Subnet mask
- Default gateway
- Domain name
- IP address of NTP server
- Cisco UCS Server Configuration Utility CD
- VMware ESXi 4.1/vSphere 5 Standard for 1 processor (Purchase from Cisco or VMware.)
  - When purchasing from Cisco, use the following SKU: VMW-VS5-STD-1A
  - When downloading the VMware software, make sure to select ESXi 4.1.

- ESXi 4.0 is also supported.
- OVF template file for CTRS (Download from Cisco.com)
- PC running Microsoft Windows connected to the same network as the UCS server

### Firmware Recommendation and Upgrade

For the best results, Cisco recommends UCS firmware version 1.2.2d or later.

#### **Checking the Firmware Version on the UCS Server**

To check the firmware version on the UCS server:

Step 1	Set up Cisco Integrated Management Controller (CIMC) for your UCS Server.
	For details, refer to: http://www.cisco.com/en/US/products/ps10493/products_configuration_example09186a0080b10d66.s html
Step 2	In the CIMC Configuration Utility, configure the IP address and save the changes:
	• NIC mode: dedicated
	• NIC redundancy: none
Step 3	Open a browser and go to the CIMC IP address.
Step 4	Log in to the CIMC
	By default, the username is <b>admin</b> and the password is <b>password</b> .
Step 5	Go to Admin > Firmware Management.
	The firmware version is displayed here. It is also displayed on the login page.
Step 6	If you want to upgrade the firmware, go to the next section: Upgrading the Firmware on the UCS Server, page 3-3

#### Upgrading the Firmware on the UCS Server

To upgrade the firmware on the UCS server:

- **Step 1** Download the firmware from Cisco:
  - a. Go to: http://cisco.com/support
  - **b.** Click the **Downloads** tab
  - c. Click in the Find field, enter UCS and click Find. The Select a Product page appears.
  - d. Click the link for the Cisco UCS C-210 M2 Rack-Mount Server Software. The Download Software page appears.
  - e. Click the link for **Unified Computing System (UCS) Server Firmware**. The available firmware releases are displayed.

- f. Select a firmware release and click Download Now.
- g. Log in to Cisco.com (if required).
- h. In the Download Cart page, click Proceed With Download. The End User License Agreement page appears.
- i. Click Agree.
- j. Select one of the available download options.
- **k.** Click the **Download** link.
- **Step 2** Log in to the CIMC (if not already logged in).
- Step 3 Go to Admin > Firmware Management
- Step 4 Click Install CIMC Firmware through Browser Client. The Install Firmware window appears.
   Step 5 Click Browse, select the firmware you downloaded and click Install Firmware.
- **Step 6** When a message appears indicating the upgrade is completed successfully, click **Activate CIMC Firmware**.
- **Step 7** The upgrade takes about 20 minutes.
- **Step 8** When the upgrade is complete, reboot the UCS server.

### **Configuring RAID on the UCS Server**

This section describes the process for configuring RAID on the UCS server. RAID must be configured before installing VMware, setting up the virtual machine and installing the CTRS software.

**Note** If the UCS server was purchased from the TelePresence Technology Group (TTG) or Voice Technology Group (VTG) at Cisco, the RAID will be preconfigured. In this case, skip this section and start in the "Installing VMware on the UCS Server" section on page 3-6.

To configure RAID on the UCS Server:

 Step 1 Insert the Cisco UCS Server Configuration Utility CD and reboot UCS server. Cisco UCS Server Configuration Utility version 1.0.0 screen appears.
 Step 2 Wait for application to load and the License Agreement screen to appear.
 Step 3 Click I Accept and click Next. The My Server screen appears.
 Step 4 Click RAID Configuration The Choose RAID Controllers screen appears.
 Step 5 Click LSI MegaRAID SAS 9261-8i (External) and click Next.
 Step 6 The RAID Configuration screen appears. Step 7 Click Create custom or multiple RAID Arrays (advanced) and click Next.

The Select Drives for Logical Drive screen appears.

Step 8Select Disks 0 and 1 and click Next.

The Select Hotspare Drives screen appears.

Step 9 Click Next.

The Define Array Attributes screen appears.

- **Step 10** Set the fields the following way:
  - RAID Level: 1
  - Stripe size: **64k** (only option)
  - Read policy: Read Ahead (other options: No Read Ahead, Adaptive Read Ahead)
  - Write Policy: Write Through (other option: Write Back)
  - Cache Policy: **Direct IO** (other option: Cache IO)
  - Size (MB): 139236
- Step 11 Click Next.

The Summary screen appears displaying RAID array information.

Step 12 Click Create Array.

The Array Definition Complete screen appears with the message "Virtual Drive Created Successfully".

Step 13 Click Create Another Array.

The Choose RAID Controllers screen appears.

- Step 14 Click LSI MegaRAID SAS 9261-8i (External) and click Next.
- Step 15 Click Create custom or multiple RAID Arrays (advanced) and click Next.

The Select Drives for Logical Drive screen appears.

**Step 16** Select disks **2** through **9** and click **Next**.

The Define Array Attributes screen appears.

- **Step 17** Set the fields the following way:
  - RAID Level: 5
  - Stripe size: **64k** (only option)
  - Read policy: Read Ahead (other options: No Read Ahead, Adaptive Read Ahead)
  - Write Policy: Write Through (other option: Write Back)
  - Cache Policy: **Direct IO** (other option: Cache IO)
  - Size (MB): 974652
- Step 18 Click Next.

The Summary screen appears displaying RAID array information.

Step 19 Click Create Array.

The Array Definition Complete screen appears with the message "Virtual Drive Created Successfully."

Step 20 Click Finish.

The My Server screen appears.

**Step 21** Eject the CD.

## Installing VMware on the UCS Server

This section describes how to install VMware on the UCS C-210 M2 server. VMware ESXi 4.0 and 4.1 are supported for this version of CTRS on the UCS C-210 M2 server.

#### To install VMware on the UCS server:

Step 1	Insert the VMware Installer CD.
Step 2	Reboot the UCS server by doing either of the following:
	• If RAID on your UCS server was preconfigured by Cisco: Reboot the UCS server.
	• If you configured RAID on your UCS (following the steps in the previous section): In the My Server screen, click <b>Exit</b> and then click <b>OK</b> to confirm and reboot the UCS server.
	The VMware screen appears.
Step 3	Wait for the bootup process to complete. Do not press any keys.
	The bootup is complete when the VMware ESXi Installer screen appears with a welcome message.
Step 4	Press Enter to install VMware.
	The End User License Agreement (EULA) screen appears.
Step 5	Press F11 to accept the agreement and continue.
	The Select a Disk screen appears displaying the installed disks and their size.
Step 6	Use the arrow keys to select the disk for the RAID 1 array and press Enter.
Note	The RAID 1 array is the smaller of the two RAID arrays.
	The Confirm Install screen appears.
Step 7	Press F11 to start the installation.
	The installation begins.
	The installation is finished when the Installation Complete screen appears.
Step 8	Eject the VMware CD.
Step 9	Press Enter to reboot the UCS server.
	When bootup is complete, the VMware ESXi screen appears with the message:
	"Download tools to manage this host from:" followed by a URL.
Step 10	Press <b>F2</b> to customize the system.
	The System Customization screen appears.
Step 11	Select Configure Password (selected by default) and press Enter.
	The Configure Password screen appears.
Step 12	In the New Password field, enter a password and press <b>Tab</b> .

- Step 13 In the Confirm Password field, re-enter that password and press Enter.
- Step 14Select Configure Management Network and press Enter.The Configure Management Network screen appears.
- Step 15Select Network Adaptors (selected by default) and press Enter.The Network Adaptors screen appears.
- **Step 16** Select the adaptor which is connected and press **Enter.**
- Step 17 Select IP configuration and press Enter.The IP Configuration screen appears.
- Step 18 Select Set Static IP address and network configuration.
- **Step 19** Enter IP address, Subnet Mask and Default Gateway and press **Enter**.
- Step 20 Select DNS Configuration and press Enter.
- **Step 21** The DNS Configuration screen appears.
- Step 22 Select Use the following DNS server addresses and hostname.
- **Step 23** Enter Primary DNS Server and Hostname and press Enter.
- Step 24 Select Custom DNS Suffixes and press Enter.

The Custom DNS Suffixes screen appears.

- Step 25 Enter your company's domain followed by a comma, a space and "localdomain" and press Enter. For example: yourcompany.com, localdomain
- **Step 26** In the Configure Management Network window, press **Esc** to return to the System Customization window.
- Step 27Select Test Management Network and press Enter.The Test Management Network screen appears.
- Step 28 Press Enter.

The VMware software will attempt to ping your default gateway, DNS server and hostname. The test should display "OK" for each ping attempt.

Step 29 Press Enter.

The System Customization window appears.

**Step 30** Log out of the VMware ESXi Installer by pressing **Esc**.

The VMware ESXi screen appears.

Step 31 Note the IP address displayed on this screen. You will use this IP address to download the VMware vSphere client to your PC to create your virtual machine in the next section.

### Installing the VMware Client and Creating the Virtual Machine

This section describes how to install the VMware vSphere Client and create the virtual machine. To complete this procedure, you must use a PC that is connected to the same network as your UCS server.

#### To set up the virtual machine:

**Step 1** From your PC, open a web browser and go to the IP address displayed on the VMware ESXi screen at the end of the previous section.

The VMware ESXi Welcome page appears.

- **Step 2** Click Download vSphere Client and follow the on-screen instructions to install the vSphere Client on your PC.
- **Step 3** Open the VMware vSphere Client.
- **Step 4** Log in to the ESXi host on the UCS server using the following information:
  - IP address / name: IP address of UCS server (used in step 1)
  - User name: root
  - Password: VMware password created during installation on the UCS server

A Security Warning window appears, indicating that an untrusted SSL certificate is installed.

Step 5 Click the checkbox for "Install this certificate and do not display any security warnings" and click Ignore.

A VMware Evaluation Notice window appears, indicating that you must upgrade your ESX Host license. The initial evaluation license expires 60 after installation.

**Step 6** You can upgrade it now, by following the instructions starting in step 2 of Installing the VMware License, page 3-12 or click **OK** if you want to upgrade later.

The vSphere Client window opens with the UCS server (identified by IP address) displayed in the left-hand side of the window.

The next step is to align the datastore on which you will set up your virtual machine (the largest volume). This improves disk performance and prevents disk blocks from being fragmented.

- Step 7 Click the Summary tab.
- **Step 8** In the Datastore area, right-click the datastore with the largest capacity and select **Delete**.

A confirmation window appears.

**Step 9** Click **Yes** to confirm you want to delete the datastore.

In the Recent Tasks area at the bottom of the window, the Remove Datastore task appears.

- **Step 10** Wait for the task to display a status of "Completed."
- **Step 11** Click the **Configuration** tab.
- **Step 12** In the Hardware area on the left, click **Storage**.

In the Datastores area, the remaining datastore is displayed.

**Step 13** In the upper right above the Datastores area, click **Add Storage...**.

The Add Storage window opens and the Select Storage Type screen is displayed.

Step 14 Select Disk/LUN (selected by default) and click Next.

The Select Disk/LUN screen appears.

Step 15 Click the Local LSI Disk and click Next.

The Current Disk Layout screen appears confirming the disk partition you will create.

Step 16 Click Next.

The Properties screen appears.

- Step 17Enter a name for your datastore and click Next.The Disk/LUN Formatting screen appears.
- Step 18 From the Maximum file size drop-down list, choose 256 GB, Block size: 1 MB and make sure Maximize Capacity is checked.
- Step 19 Click Next.

The Ready to Complete screen appears.

Step 20 Click Finish.

In the Recent Tasks area at the bottom of the window, the Create VMFS Datastore task appears.

Step 21 Wait for the task to display a status of "Completed."

After completion, you have two datastores. The datastore with the smaller capacity is the RAID 1 configuration, where the VMware software is installed, and the datastore with the larger capacity is the RAID 5 configuration, where you will deploy the virtual machine and install the CTRS software.

### Disabling LRO (ESXi 4.1 only)

If you are running VMware ESXi 4.1 on the UCS server, you may experience slow TCP performance of the virtual machine. You can resolve this by disabling Large Receive Offload (LRO) on the ESXi host.

#### To disable LRO:

- Step 1 Log into the ESXi host on the UCS server with the VMware vSphere Client (if not already logged in).
- **Step 2** Click the UCS server icon in the left-hand side of the window.
- **Step 3** Click the **Configuration** tab.
- Step 4 In the Software section, click Advanced Settings.
- **Step 5** Select **Net** and scroll down slightly more than half way.
- **Step 6** Set the following parameters from 1 to 0:
  - Net.VmxnetSwLROSL
  - Net.Vmxnet3SwLRO
  - Net.Vmxnet3HwLRO
  - Net.Vmxnet2SwLRO
  - Net.Vmxnet2HwLRO
- **Step 7** Right-click the UCS server and select **Reboot**.

Your virtual machine should now have normal TCP networking performance.

### Importing the OVF Template

This section describes how to deploy the Open Virtualization Format (OVF) template for CTRS to create the virtual machine on which to install the CTRS software. OVF is a standard for packaging and distributing virtual machines. The OVF template streamlines the process of setting provided by Cisco contains all the virtual machine settings required for the CTRS.

The OVF template for CTRS is provided by Cisco.

#### To install the OVF template:

- **Step 1** Download the OVF template from Cisco:
  - a. Go to: http://cisco.com/support
  - **b.** Click the **Downloads** tab
  - **c.** Click in the Find field, enter **Cisco TelePresence Recording Server** and click **Find**. The Select a Product page appears.
  - d. Click the link for the Cisco TelePresence Recording Server Release 1.8. The Download Software page appears.
  - e. Select CTRS.ova and click Download Now.
  - f. Log in to Cisco.com (if required).
  - g. In the Download Cart page, click Proceed With Download.The End User License Agreement page appears.
  - h. Click Agree.
  - i. Select one of the available download options.
  - j. Click the Download link.
- Step 2 Log into the ESXi host on the UCS server with VMware vSphere Client (if not already logged in).
- Step 3 Select File > OVF Template.

The Deploy OVF Template window opens.

- Step 4 Select Deploy from File.
- Step 5 Click Browse
- Step 6 Select the OVF template for the TelePresence product you want to install and click Open.
- Step 7 Click Next.

The OVF Template Details page appears.

- Step 8 Click Next.
- **Step 9** Enter a name for your virtual machine and click Next.

The Datastore page appears.

- Step 10Click the largest datastore and click Next.The Ready to Complete page appears.
- Step 11 Click Finish.

## Installing CTRS Software

This section describes how to install CTRS software on the virtual machine you created and configured.

To install CTRS administration software:

	Insert the installer DVD into your PC.
	Log into the ESXi host on the UCS server with VMware vSphere Client (if not already logged in).
	In the left-hand side of the window, click the virtual machine you created and click the Console tab.
	Right-click your virtual machine and choose <b>Power &gt; Power On</b> .
1	On the toolbar, click the button with the CD and Wrench icon and wait for the menu to pop up.
(	Choose <b>CD/DVD Drive 1 &gt; Connect to ISO image on local disk</b> and open the .iso image for CTRS.
	If you have a DVD inserted in your PC instead of an .iso, you can connect to the CD/DVD drive by selecting for the CD/DVD drive letter.
	In the console window, the installer startup process begins.
	Click inside the console window to make it active, so you can use your keyboard during the installation process.
	After clicking in the console window, you can no longer use your mouse. This is normal behavior, because you cannot use the mouse in the console. If at any time you need to regain control of your mouse, press <b>Ctrl+Alt</b> . To make the console window active again, click in the console window.
	Follow the rest of the installation as detailed in "Installing the CTRS Administration Software" section on page 3-13
	After completing the installation, press Ctrl+Alt to exit the console window and regain control of your
	mouse.

# **Upgrade VMware Tools**

This section describes how to upgrade the VMware tools which is required after installing CTRS.

#### To upgrade VMware tools:

- Step 1 Log into the ESXi host on the UCS server with VMware vSphere Client.
  Step 2 Make sure the virtual machine for CTRS is powered on.
  Step 2 Dialet align the CTRS is the lower line of the lower line of the VMware vSphere Client.
- **Step 3** Right-click the CTRS virtual machine, and choose **Guest > Install/Upgrade VMware Tools**.

- Step 4 In the popup window that appears, choose Automatic Tools Upgrade and click OK.
- **Step 5** In the Recent Tasks area at the bottom of the vSphere Client window, wait for the VMware Tools Installer Mount to display a status of Completed.

### **Installing the VMware License**

This section describes how to install the VMware software license. After installation, the VMware vSphere Client software works for 60 days, after which you must upgrade to a host license to continue using it to manage the CTRS.

#### To install the VMware license:

Step 1	Log in to the VMware vSphere Client.
	The VMware vSphere Client opens and a VMware Evaluation Notice window appears, indicating that you must upgrade your ESX Host license.
Step 2	Click Upgrade your ESX host license.
	A browser window opens and the VMware vSphere page appears.
Step 3	Enter your First Name, Last Name, Email Address and click Continue.
	The Evaluate VMware Products page appears.
Step 4	Enter the additional required information, agree to the terms and conditions and click <b>Register</b> .
	The VMware vSphere Product Evaluation Center page appears.
Step 5	Check the email account for the email address you provided in step 4 and open the email titled "Activate VMware Account."
Step 6	Click Activate Now.
	A browser window opens and the Enter Your Password page appears.
Step 7	Enter the password you created in step 4 and click Continue.
	The Account Activate page appears informing you that your account has been activated and then the VMware vSphere Product Evaluation Center page appears.
Step 8	In the VMware vSphere Client, close the VMware Evaluation Notice window by clicking OK.
Step 9	Click the <b>Configuration</b> tab.
Step 10	In the Software area on the left side of the vSphere Client window, click Licensed Features.
	The Licensed Features information for the ESX Server License Type appears.
Step 11	In the upper-right part of the window, click Edit.
	The Assign License window appears.
Step 12	Click Assign a new license key to this host and click Enter Key.
Step 13	The Add License Key window appears.
Step 14	Enter the license key you received from VMware and click OK.
	License information appears below the key you entered.

Step 15 Click OK.

**Step 16** In the Recent Tasks area at the bottom of the vSphere Client window, wait for the Installing license and Decode license tasks to display a status of Completed.

## Installing the CTRS Administration Software

To install the CTRS Administration software application:

- **Step 1** Insert the CTRS Administration software application DVD into the appropriate drive in the server and boot up the host.
- Step 2 Media Check: The system asks if you wish to perform a media check on the inserted DVD. Select Yes or No and press the Enter key. If you select No, the system bypasses the media check. If you select Yes, the system performs a checksum to make sure that the media on the DVD is intact. When the checksum has successfully completed, select Okay and press the Enter key.



- **Note** If the checksum fails, it could be because of a problem with either the DVD or the DVD drive. The DVD or the DVD drive could need cleaning; the DVD data could be corrupted; or the software image you are trying to load could be the wrong image.
- **Step 3** Hard Drive Check: The system then checks the status of the hard drives in the server. When cued to update BIOS or to overwrite the hard drive, select *Yes* and press the Enter key to continue.
- **Step 4 Platform Installation Wizard:** Select *Proceed* and press the Enter key to continue.
- **Step 5** Automatic Negotiation of Ethernet NIC Speed and Duplex: Select *Yes* and press the Enter key to continue.
- **Step 6 DHCP**: Cisco Systems recommends that you use a static IP address instead of DHCP. Select *No* to define a specific static IP address and press the Enter key. Enter the following information:
  - Hostname: Hostname of the CTRS server
  - IP Address: IP address of the CTRS server
  - IP Mask: Subnet mask for the CTRS server IP address
  - Gateway Address: IP address for the gateway to the CTRS server

Select *Okay* and press the Enter key to continue.

- **Step 7 DNS Client**: Select *Yes* and press the Enter key. Enter the following information:
  - Primary DNS: IP address of the primary Domain Name System server
  - Secondary DNS: IP address of the secondary Domain Name System server

Domain: Domain name for your company

Select Okay and press the Enter key to continue.

#### **Step 8 Platform Administrator Username and Password**: Enter the following information:

- Administration ID
- Password
- Confirm Password

Select Okay and press the Enter key to continue.

#### **Step 9 Certificate Information**: Enter the following information:

- Organization
- Unit
- Location
- State
- Country

Select *Okay* and press the Enter key to continue.

#### Step 10 Network Time Protocol (NTP) Client Information: Enter the following information:

- NTP Server 1: IP address of the primary NTP server
- NTP Server 2: IP address of the secondary NTP server
- NTP Server 3 through 5: IP addresses of additional NTP servers

Select Okay and press the Enter key to continue.



**Note** The NTP servers identified must be the same for CTRS, CTMS, CTS and CTM. It is recommended that you provide at least three NTP servers.

- **Step 11** Database password: Enter the database password and then press the Enter key to continue.
- Step 12 Platform Configuration Confirmation: Select Okay to continue with installation. select Back to go to previous pages in the installation procedure, or Cancel to abort the installation. When you have made your selection, press the Enter key. If you select Okay, platform and application installation takes approximately 30 to 45 minutes. During installation, allow the default selection for the custom kernel to proceed.
- Step 13 After the CTRS Administration software application files have been installed, the system automatically reboots. The system then performs a check of the network connectivity and setup. If the system determines that any of the information you entered during the preceding steps is incorrect, a message is displayed on the console, giving the you the following options:
  - Retry: Select this option (and press the Enter key) to retry the installation procedure.
  - Review: Select this option (and press the Enter key) if you need to change any of the data you entered during the preceding installation steps. If you select this option, navigate to the appropriate installation data entry page, re-enter the data, and then proceed to the **Platform Configuration** page to re-initiate installation.

- Halt: Select this option (and press the Enter key) if you need to abort installation.
- Ignore: Select this option (and press the Enter key) to ignore the system warning.
- **Step 14** After the network connectivity and setup check, the system reboots again. Following this reboot, the CTRS Administration software log-on page is displayed. Enter your username and password to continue with CTRS Administration software configuration.

# **Replacing a Hard Disk Drive**

This section describes how to replace a hard disk drive in a Cisco MCS-7845-Ix server on which CTRS software is running.



We do not recommend replacing a hard disk drive while the CTRS is powered on, a process known as hot swapping. Hot swapping a hard disk drive can result in configuration data loss as well as loss of stored videos.

**Step 1** Perform a backup of the CTRS configuration data only.

A backup of the CTRS configuration data may be needed if the scenario described in step 6 occurs. If this scenario occurs, the CTRS configuration data cannot be restored from a backup of the full system data, so make sure to perform a backup of the CTRS configuration data only.

- **Step 2** Export the media files (videos) to an archive server.
- **Step 3** Power down the CTRS.
- **Step 4** Replace the hard disk drive.
- **Step 5** Power on the CTRS.
- Step 6 If the CTRS is unresponsive, you must re-install the CTRS software.

For complete information on how to install the software, see the *Cisco TelePresence Recording Server Administration Guide* at this location:

http://www.cisco.com/en/US/products/ps10341/prod\_maintenance\_guides\_list.html

- **Step 7** Restore the configuration data.
- **Step 8** Import the archived media files to the CTRS.



