



Maintaining Cisco Unity

Overview: Maintaining Cisco Unity

To maintain Cisco Unity, you must be able to monitor system activity so that you can adjust settings when necessary. You also need to receive notifications when there is a problem with the Cisco Unity server itself. In addition, you must have a recent backup of the system so that you can quickly restore operation, if necessary.

Cisco Unity provides several reports that help you to monitor system performance and subscriber activity. See [Chapter 23, “Reports”](#) for more information.

Refer to the following sections in this chapter for more information:

- [The Status Monitor, page 6-2](#)—This application provides current status information about the system, ports, reports, licenses, and drive space, as well as a method for starting and shutting down Cisco Unity.
- [Event Notification Utility, page 6-3](#)—This utility sends e-mail or voice mail notifications to subscribers or public distribution lists in response to an error condition or potential problem on the Cisco Unity server.
- [Accessing Cisco Unity Remotely, page 6-7](#)—There are several methods that you can use to access the Cisco Unity server from a remote site.
- [Moving Subscriber Mailboxes, page 6-10](#)—It is possible to move subscribers from one Exchange server to another without having to shut down Cisco Unity.
- [Backing Up Cisco Unity, page 6-14](#)—Backups are essential for restoring Cisco Unity quickly if data is corrupted or lost.

The Status Monitor

The Status Monitor is a Web-based application on the Cisco Unity server that runs separately from the Cisco Unity Administrator. It contains five pages providing information about system status, ports, reports, licenses, and disk drives. Each page of the Status Monitor displays key status information from the other Status Monitor pages in the taskbar at the bottom of the screen.

Note that access to the Status Monitor is controlled by class of service. See [Chapter 13, “Class of Service Settings”](#) for details. Internet Explorer 5.0 or later is required to view the Status Monitor pages.

To access the Status Monitor, go to `http://<server name>/status`, or double-click the desktop shortcut to the Status Monitor that is on the Cisco Unity server.

See [Table 6-1](#) for information about each page in the Status Monitor.

Table 6-1 Status Monitor Pages







Button	Page Name	Description
	System Status	Shows whether Cisco Unity is operating, and allows you to start and exit from Cisco Unity. You can choose to exit after all calls are finished or to interrupt calls in progress with a message and then disconnect all calls and exit.
	Port Status	Shows the status of each port. This page is useful for testing and troubleshooting. For example, you can monitor an incoming call to see which call handlers the call is routed to.
	Report Status	Shows the status of all reports that have been generated.
	License Status	Shows the number used, the number available, and the total number purchased of each type of user license.

Table 6-1 Status Monitor Pages

Button	Page Name	Description
	Disk Drive Status	Shows the total size and the available space of each drive and partition on the Cisco Unity server.
	Help	Displays the online Status Monitor Help.

Event Notification Utility

The Event Notification utility sends e-mail, voice mail, or both to subscribers or public distribution lists in response to an error condition or potential problem on the Cisco Unity server. The utility monitors the Windows application log and sends notification when a specified event occurs, such as “Disk almost full.” In addition, the utility can also automatically restart the Cisco Unity server when a specified event occurs.

The Event Notification utility has several default event notifications predefined, though some event notifications, such as those which require the Cisco Unity server to automatically restart, are disabled. The notification settings for the default event notifications specify that an e-mail is sent to the System Event Messages distribution list. Because the Example Administrator is the only member of this distribution list by default, assign the appropriate subscriber(s) or public distribution list to the list to ensure that someone receives event notifications.

You can disable or enable existing event notifications, as well as modify the event which is monitored, how you are notified when the event occurs, and who receives notification. You can also add new event notifications. There are two types of event notifications that you can create:

Table 6-2 Event Notifications Types

Type	Action
NT Event Log	The utility notifies you when an application event that you specify occurs.
Reboot Cisco Unity	The utility notifies you and automatically restarts Cisco Unity when an application event that you specify occurs.

Note that Cisco Unity writes events only to the Windows application log; it does not write events to the system or security logs. To generate an Event Log report for all application events on the Cisco Unity server, or for the events that apply only to Cisco Unity, see the [“Event Log Report” section on page 23-13](#). You can also view application events by using the Windows Event Viewer (from the Start menu, click Programs > Administrative Tools > Event Viewer). You can identify the Cisco Unity events in either the Event Log report or the Event Viewer as those events that end in “_MC” (for example, “AvLogMgrSvr_MC”). For more information on Windows events, refer to the Windows Event Viewer online Help.

To modify or add an event notification

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- Step 1** On the Cisco Unity server, click **Start > Programs > Cisco Unity > Event Notification Utility**. The Notification Utility Administration window appears, listing the events monitored by the utility and the type of notification(s) set up for each.
- Step 2** Perform one of the following actions:
- To modify an existing event notification, double-click the event that you want to modify. Note that the event notification type is specified in the title bar of the Properties dialog box which appears.
 - To add a new event notification, click **File > New Event**. Then choose the appropriate action:
 - If you want the Event Notification utility to notify you when the event that you specify occurs, click **NT Event Log**.
 - If you want the utility to notify you and automatically restart the Cisco Unity server when the event that you specify occurs, click **Reboot Cisco Unity**.

- Step 3** From the Event tab, perform the following actions as appropriate:
- In the Display Name field, enter the event notification name that you want listed in the Notification Utility Administration window.
 - To enable or disable the event notification, check or uncheck the **Active** box as appropriate.
 - Select or enter the source, and then enter the event ID of the event that you want the utility to monitor as each is referenced in either the Windows application log or the Cisco Unity Event Log report.
- Step 4** From the Voice Mail Message tab, perform one of the following actions:
- To enable or disable voice mail notification, check or uncheck the **Send Message** box as appropriate.
 - To set up or modify voice mail notification, refer to the procedure, [To set up or modify voice mail notification](#), and then proceed to [Step 5](#) in this procedure.
- Step 5** From the E-Mail Message tab, perform the following actions as appropriate:
- To enable or disable e-mail notification for the event, check or uncheck the **Send Message** box as appropriate.
 - Complete or modify the remaining fields.
- Step 6** From the SMTP Message tab, perform one of the following actions:
- To enable or disable SMTP notification for the event, check or uncheck the **Send Message** box as appropriate.
 - To set up or modify SMTP notification, refer to the procedure, [To set up or modify SMTP message notification](#), and then proceed to [Step 7](#) in this procedure.
- Step 7** Click **OK**.
- Step 8** If necessary, repeat [Step 2](#) through [Step 7](#) to add or modify another event notification.
- Step 9** Click **Tools > Reset Server** to update the utility with your changes. Note that this action resets the Event Notification utility—not the Cisco Unity server. It is not necessary to restart the Cisco Unity server to save your event notification changes.
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To set up or modify voice mail notification

- Step 1** Record the message that you want to use as the voice mail message for an event notification by using the Media Master control bar. Use the Media Master **Copy to File** option to save the recording as a WAV file. (For details, see the [“Recording Greetings and Names”](#) section on page 1-14.)
- Step 2** If necessary, on the Cisco Unity server, click **Start > Programs > Cisco Unity > Event Notification Utility**. Go to the Voice Mail Message tab in the Properties dialog box for the appropriate event notification.
- Step 3** Confirm that the Send Message check box is checked, and complete the **To** and **Subject** fields.
- Step 4** Enter the directory path where you stored the WAV file that you recorded in [Step 1](#), or click **Browse** to select it.
- Step 5** Complete the remaining fields as appropriate, and then click **OK**.
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To set up or modify SMTP message notification

You can set up the Event Notification utility to send an e-mail message through an SMTP gateway in response to an error condition or potential problem on the Cisco Unity server. This capability is useful when Exchange has gone down, or if you want to send notification through the Internet to an e-mail address at another location.

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- Step 1** If necessary, on the Cisco Unity server, click **Start > Programs > Cisco Unity > Event Notification Utility**. Go to the SMTP Message tab in the Properties dialog box for the appropriate event notification.
- Step 2** Confirm that the **Send Message** check box is checked.
- Step 3** In the SMTP Server field, enter either the IP address or the fully-qualified domain name of an SMTP server that is not on your Exchange network.
- Step 4** In the Port field, confirm that the port number for the SMTP server is correct for your site. Consult your network administrator for more information.
- Step 5** Complete the From field as appropriate. You can enter a name or an e-mail address.
- Step 6** In the To field, enter the e-mail address of the message recipient.

- Step 7** Complete the remaining fields as appropriate, and then click **OK**.
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Accessing Cisco Unity Remotely

There are several methods that allow remote access to the Cisco Unity server, so that you can perform tasks—such as loading updates or patches and transferring files—that otherwise would have to be performed locally. Depending on your site, you can set up remote access to the Cisco Unity server by using:

- Symantec pcAnywhere—For more information, see the “[Using pcAnywhere](#)” section on page 6-7.
- A Virtual Private Network (VPN)—For more information, see the “[Using a Virtual Private Network](#)” section on page 6-9.
- Windows Terminal Services—For more information, refer to <http://www.cisco.com/warp/customer/788/AVVID/vmum.shtml>.

Using pcAnywhere

While it is a requirement that Symantec pcAnywhere be installed on the Cisco Unity server, so that the Cisco Technical Assistance Center (TAC) can use it to perform troubleshooting, you can also install it on a remote computer that will be used to access the Cisco Unity server in your organization. Cisco Unity comes with a license to install pcAnywhere on one remote computer. Contact your reseller for additional licenses.

Use the following procedures to set up and use pcAnywhere on your remote computer. For more detailed procedures or information about the other pcAnywhere capabilities that may be useful to you, refer to the pcAnywhere documentation.

To set up pcAnywhere on a remote computer

- Step 1** Insert the pcAnywhere compact disc in the remote computer.
- Step 2** Follow the on-screen instructions to complete the installation.

- Step 3** On the Start menu, click **Programs > Symantec pcAnywhere**, or double-click the desktop shortcut provided.
- Step 4** In the pcAnywhere Manager window, double-click the **Add Remote** icon.
- Step 5** From the Connection Info tab, perform the appropriate action:
- If you are using a modem connection, check the appropriate box in the Device List to indicate the modem that is used by your remote computer. Then, click the **Settings** tab, and enter the phone number of the Cisco Unity server in the Use Dialing Properties and Phone Number fields.
 - If you are using a LAN connection, confirm that **TCP/IP** is selected. Then, click the **Settings** tab, and enter the IP address for the Cisco Unity server in the Network Host PC to Control or IP Address field.
- Step 6** If desired, enter or change other properties as needed on the remaining tabs.
- Step 7** Click **OK**.
- Step 8** Enter a name for the new Remote icon that you just created, and then press **ENTER**.
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To start a remote session with pcAnywhere

When you connect to the Cisco Unity server from a remote computer by using pcAnywhere, your computer controls the server. The Cisco Unity server screen appears within a window on your remote computer and, in general, you can access any of the server files and applications. Before you start a remote session, make sure that pcAnywhere is running in host mode on the Cisco Unity server. If you plan to use a modem connection, confirm that there is no checkmark in the Launch With Windows check box on the Settings tab of the Host Properties dialog box.

Note that a Cisco Unity server can host only one pcAnywhere connection at a time.

- Step 1** On the remote computer, double-click the desktop shortcut provided to start pcAnywhere.
- Step 2** Double-click the new Remote icon that was created in the previous procedure, [To set up pcAnywhere on a remote computer](#).
- Step 3** If required, enter the password for the Remote icon.

- Step 4** When it becomes available, click the listing for the Cisco Unity server that you want to access, and then click **OK**.
- When a connection with the Cisco Unity server is established, the desktop of the Cisco Unity server appears, and the pcAnywhere online toolbar is displayed across the top of the screen.
- Step 5** If desired, perform the following actions to improve your connection speed:
- From the pcAnywhere online toolbar, click **View/Modify Online Options**.
 - In the Online Options dialog box, click **16 Colors** from the Color Scale menu, and then click **OK**.
- Step 6** Log on to the Cisco Unity Administrator with the appropriate name and password.
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To end a remote session with pcAnywhere

- Step 1** On the remote computer, log off and exit the Cisco Unity Administrator.
- Step 2** From the pcAnywhere online toolbar, click **End Remote Control Session**, and then click **Yes**.
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Using a Virtual Private Network

A Virtual Private Network (VPN) is a private network that uses public phone lines (or in some cases a cable modem). Privacy is maintained through encryption and the use of secure protocols. When you use a VPN to access Cisco Unity through a firewall, you will be able to use Cisco Unity as if you were inside the network.

VPN is required to be able to:

- Access the Cisco Unity Administrator Web site (<http://<server name>/web/sa>) from a remote computer outside your network firewall.
- Utilize the Media Master to record voice names and greetings by using Distributed Component Object Model (DCOM) to connect your remote computer to the Cisco Unity server through a firewall. (If you are not using VPN for remote access, refer to the Microsoft Web site for information on configuring DCOM through a firewall.)

Discuss setting up a VPN with your LAN administrator.

Moving Subscriber Mailboxes

From time to time you may need to move subscriber mailboxes to another Exchange server that is faster or has more disk space available, or you may want to move the mailboxes when you add new servers to your Exchange network. It is possible to move subscribers between Exchange servers without having to shut down Cisco Unity.

Before you can move subscriber mailboxes from one Exchange server to another, you need to use the DohPropTest utility to direct the Cisco Unity server(s) to log out of the mailboxes that you plan to move. To move subscriber mailboxes between Exchange servers while Cisco Unity is running, perform the following procedures in the order listed.

To force Cisco Unity to log out of Exchange mailboxes

Step 1 Confirm that subscribers have exited Outlook and have logged off of Cisco Unity.



Caution

The mailboxes that you plan to move must not be accessed until after they have been moved and the directory for Exchange has replicated. Subscribers must understand not to start Outlook or to access Cisco Unity over the phone until notified by you that it is okay to do so. If mailboxes are accessed during this process, subscribers will be disconnected, and the Cisco Unity server may need to be restarted.

Step 2 Run `\CommServer\Techtools\Dohproptest -a` on the drive on which Cisco Unity is installed (the default is drive C). Be sure to enter the -a option.

Step 3 In the DohPropTest Logon dialog box, leave the Password box empty, and click **OK**.

Step 4 Click **OK** to enter the read-only mode of DohPropTest.

Step 5 In the list on the left side of the window, click **MailUsers**.

Step 6 In the middle list, click the name of the subscriber whose mailbox you want to move.

- Step 7** Click **Logout User**.
 - Step 8** Click **OK** in the message box that is displayed when DohPropTest has disabled the mailbox.
 - Step 9** Repeat [Step 6](#) through [Step 8](#) for each subscriber that you want to move.
 - Step 10** Leave **DohPropTest** open, and then move subscriber mailboxes by performing either of the following two procedures, as appropriate for your version of Exchange.
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To move Exchange 5.5 mailboxes

- Step 1** On the Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.
 - Step 2** In the tree in the left pane, click **Recipients**, then click the name(s) of the subscriber(s) in the right pane.
 - Step 3** Click **Tools > Move Mailbox**.
 - Step 4** In the Move Mailbox To list, click the server to which the mailbox(es) will be moved.
 - Step 5** Click **OK** to move the mailbox(es).
 - Step 6** Once the mailbox(es) have been moved, subscribers may not be able to access messages until the directory is updated. You can either force directory replication, or you can wait for the directory replication to occur automatically, depending upon your Exchange settings.

Before you force directory replication, it is a good idea to discuss this with the Exchange administrator for your site. If you decide to force directory replication, do so for the Cisco Unity server where the mailbox(es) used to reside and for the server to which the mailbox(es) were moved. Refer to the Microsoft Exchange documentation for detailed procedures.
 - Step 7** Continue with the procedure, [To synchronize the servers](#).
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To move Exchange 2000 mailboxes

- Step 1** Start the **Active Directory**.

- Step 2** In the tree in the left pane, click **Users**.
- Step 3** Right-click the name of the subscriber(s) in the right pane, and then click **Exchange Tasks**.
- Do not click the Move command from this menu, as it moves mailboxes to another container, rather than to another Exchange server.
- Step 4** From the Exchange Task Wizard, follow the on-screen instructions. When prompted, click **Move Mailbox**, and then click **Next**.
- Step 5** On the Move Mailbox tab, perform the following actions:
- In the Current Mailbox Store field, confirm the location from which the mailbox(es) are being moved.
 - In the Server field, click the server to which the mailbox(es) will be moved.
 - In the Mailbox Store field, click the mailbox store to which the mailbox(es) will be moved.
 - Click **Next**.
- Step 6** Once the mailbox(es) have been moved, subscribers may not be able to access messages until the Active Directory is updated. You can either force directory replication, or you can wait for the directory replication to occur automatically, depending upon your Exchange settings.
- Before you force directory replication, it is a good idea to discuss this with the Exchange administrator for your site. If you decide to force directory replication, do so for the Cisco Unity server where the mailbox(es) used to reside and for the server to which the mailbox(es) were moved. Refer to the Microsoft Exchange documentation for detailed procedures.
- Step 7** Continue with the procedure, [To synchronize the servers](#).
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To synchronize the servers

- Step 1** In the main window of DohPropTest, click **Start**. This synchronizes Cisco Unity with the directory in Exchange.
- Step 2** Exit **DohPropTest**.

- Step 3** If you are using Exchange 2000, notify subscribers that they can log on to both Outlook and Cisco Unity. If you are using Exchange 5.5, continue with the next procedure, [To run the Exchange 5.5 Optimizer](#).
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To run the Exchange 5.5 Optimizer

If you have moved more than 100 subscribers in Exchange 5.5, run the Exchange Optimizer on the Cisco Unity server. Otherwise, you may encounter problems with Cisco Unity not accepting dialed extensions for subscribers and call handlers, and with conversation-related errors in the event log. If there are other Exchange servers in the site, you do not need to run the Exchange Optimizer on the other Exchange servers.

Note that if your Cisco Unity server is connected to Exchange 2000, you do not need to perform this procedure.

- Step 1** Shut down the Cisco Unity server, if it is running.
- Step 2** On the Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Optimizer**.
- Step 3** Follow the on-screen instructions. If the Exchange Optimizer recommends that you move files, you can safely choose not to do so.
- Step 4** If the Exchange 5.5 Optimizer displays an error message saying that a service could not be shut down, perform the following actions:
- Exit the **Exchange Optimizer**.
 - Right-click the **Cisco Unity** icon in the status area of the taskbar, and click **Exit**.
 - Start the **Exchange Optimizer**, and follow the on-screen instructions.
- Step 5** When the Exchange Optimizer is finished, restart the Cisco Unity server.
- Step 6** Notify subscribers that they can log on to both Outlook and Cisco Unity.
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Backing Up Cisco Unity

A backup strategy that provides a schedule for performing full backups is essential for restoring Cisco Unity quickly if data is corrupted or lost. If your organization does not have a backup strategy as part of its disaster recovery plan for Exchange, refer to the documentation provided by the backup software that is used at your site and to the appropriate documentation available on the Microsoft Web site to develop one.

If your organization does not already have a software package for performing scheduled backups, you can use Backup Exec, a data management program from the VERITAS Software Corporation, to back up the Cisco Unity server. The following sections contain backup procedures for using Backup Exec to perform full backups of your Cisco Unity server(s). For technical assistance with Backup Exec, contact the VERITAS Software Corporation.

Preparing the Cisco Unity Server

Before backing up the Cisco Unity server, perform the following procedure on each Cisco Unity server in your site.

To prepare the Cisco Unity server for backup

Step 1 Install the tape drive and associated drivers on the Cisco Unity server. Refer to the documentation included with your tape drive for installation instructions.

If you have a server dedicated to performing backups at your site, you can skip this step.

Step 2 If desired, disable circular logging in Exchange 5.5. When circular logging is disabled, if a backup job is interrupted or fails, you will be able to use the Exchange log files to recover any data that is missing from a backup file set. Note that because an Exchange service is momentarily stopped and then restarted when you disable circular logging, you should do so when Cisco Unity is not processing many calls.

For details on disabling circular logging in Exchange 5.5, refer to the Microsoft Exchange 5.5 documentation. It is not necessary to disable circular logging for Exchange 2000 because in that version of Exchange, it is disabled by default.

- Step 3** Install Backup Exec on the Cisco Unity server. Refer to the Backup Exec documentation for details. When you perform this step, note the following:
- Be sure to install the Agent for Microsoft Exchange and SQL, which are Backup Exec install options.
 - One of the Backup Exec install options is to make the Cisco Unity server a remote client to the backup server so that Backup Exec can perform backups over a network. This option is useful if your site uses a dedicated server to perform backups.
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Backing Up the Cisco Unity Server

The best time to perform a backup is when the Cisco Unity server is not busy: when Cisco Unity is not processing many calls (for example, after the end of the regular business day), or when there are no other processes running (for example, when the system is not generating reports).

Note that customized Cisco Unity call routing rules are not included in the backup files. If you ever need to restore your system, you must recreate such call routing rules manually by using the Cisco Unity Administrator. See [Chapter 21, “Call Routing”](#) for procedures on creating call routing rules.

To back up the Cisco Unity server

You can use the following procedure to backup the Cisco Unity server with Backup Exec. Note that if Cisco Unity is installed on a domain controller or a domain controller/global catalog server, you need to take additional steps to back up the Active Directory. Refer to the Microsoft Web site for information about restoring the Active Directory.

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- Step 1** On the Start menu, click **Programs > VERITAS Backup Exec**. If necessary, follow the on-screen instructions to configure Backup Exec for first-time use. Refer to the Backup Exec documentation for details.
- Step 2** If necessary, click the **Backup Selections** tab at the bottom of the window.
- Step 3** In the left pane, click **Local Selections** to select the components on the Cisco Unity server to back up. This includes the following selections:

- The Cisco Unity server, including the drives on which Cisco Unity and Windows 2000 are installed (the default is drive C), and any drives containing Exchange transaction logs or databases
- Microsoft Exchange Directory
- Microsoft Exchange Information Store
- Microsoft Exchange Mailboxes (assuming that user mailboxes are associated with the local Cisco Unity server)
- MS SQL Server
- System State

Step 4 On the toolbar, click **Backup**.

Step 5 From the Backup Job Properties dialog box, click the **General** tab.

Step 6 Enter a job name.

Step 7 Choose to overwrite or append to the existing media. If you choose to append, verify that there is enough room on the tape.

Step 8 Enter the media name and backup set description.

Step 9 From the Backup Method For Files list, confirm that a full backup is selected.

Step 10 Choose the destination device and media set.

Step 11 Click the **Advanced** tab.

Step 12 Check the **Verify After Backup Completes** check box.

Step 13 Check the **Write Checksums to Media** check box.

Step 14 In the Compression Type list, click **Software** or **None**. (Note that hardware compression can cause problems with some tape drives. Refer to your tape drive documentation for more information before using hardware compression.)

Step 15 Click the **Exchange** tab.

Step 16 From the Backup Method list, confirm that a full backup is selected.

Step 17 At the bottom of the Backup Job Properties dialog box, perform the appropriate action:

- Click **Run Now** to begin the backup immediately.
- Click **Save Job** to save the job settings. (To run a saved job later, click the **Job Definitions** tab, right-click the job, and then click **Run Now**.)
- Click **Schedule** to enter schedule options for the job.

- Step 18** If desired, click the **Activity Monitor** tab at the bottom of the window to watch the backup job as it progresses.
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Restoring the Cisco Unity Server

To restore the Cisco Unity server in the event of a disaster, such as major system corruption or unrecoverable hardware problems, refer to the [“Disaster Recovery of the Cisco Unity Server”](#) section in the [“Introduction”](#) chapter of the *Cisco Unity Troubleshooting Guide*.

