



## Setting Up Exchange

In this chapter, you do the following tasks in the order listed:



**Note**

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*Failover:* If you are installing the secondary Cisco Unity server now, skip Task 1.

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1. Determine the Exchange server that Cisco Unity will connect with, known as the partner Exchange server. See the [“Determining the Partner Exchange Server”](#) section on page 6-2.
2. Install Exchange administration software or Exchange on the Cisco Unity server, as applicable. See the [“Installing Exchange Software on the Cisco Unity Server”](#) section on page 6-2.
3. Install the latest Microsoft service pack (if any) and updates for Exchange that are recommended for use with Cisco Unity. See the [“Installing the Latest Microsoft Service Packs and Updates for Exchange”](#) section on page 6-10.



**Note**

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*Failover:* If you are installing the secondary Cisco Unity server now, skip Task 4.

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4. *If the system is using Exchange 2003 or Exchange 2000:* Extend the Active Directory schema for Cisco Unity. See the [“Extending the Active Directory Schema for Cisco Unity \(Exchange 2003 and Exchange 2000 Only\)”](#) section on page 6-11.



**Note**

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*Failover:* If you are installing the secondary Cisco Unity server now, skip Task 5.

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5. *If the system is using Exchange 2003 or Exchange 2000:* Create Active Directory organizational units for users and distribution lists, and a mailbox store, if applicable. See the [“Creating Organizational Units and a Mailbox Store \(Exchange 2003 and Exchange 2000 Only\)”](#) section on page 6-11.

When you are finished with this chapter, return to [Chapter 1, “Overview of Mandatory Tasks for Installing Cisco Unity”](#) to continue installing the Cisco Unity system.



**Note**

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The tasks in the list reference detailed instructions in the *Cisco Unity Installation Guide* and in other Cisco Unity documentation. Follow the documentation for a successful installation.

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## Determining the Partner Exchange Server

During configuration of the Cisco Unity software, you will be prompted to select an Exchange server for Cisco Unity to connect with. The server is known as the partner Exchange server, or the partner server. You decide now which server you will use as the partner server, based on the following information; you specify the partner server later in the installation process.

When all Cisco Unity subscriber mailboxes will be homed on the same Exchange server, use that server as the partner server. For the Voice Messaging configuration with Exchange 2000 installed on the Cisco Unity server, the Cisco Unity server is the partner Exchange server.

When Cisco Unity subscriber mailboxes will be homed on more than one Exchange server, consider the following general guidelines for deciding which server to use as the partner server:

- All voice messages from outside callers pass through the partner server on their way to user mailboxes. Use an Exchange server based on its ability to handle the additional traffic.
- When Exchange is configured for active/active or active/passive clustering, use either an Exchange server outside the cluster or the Exchange virtual server in the cluster.

When Cisco Unity subscriber mailboxes will be homed in both Exchange 2003 and Exchange 2000—regardless of whether they will also be homed in Exchange 5.5—we recommend, for most topologies, that you use an Exchange 2003 server as the partner server. Otherwise, when you upgrade the partner server to Exchange 2003, Cisco Unity subscriber mailboxes will not have access to messages during the upgrade. In addition, you will need to upgrade the Exchange administration software installed on the Cisco Unity server.

**Caution**

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When Windows Server 2003 is installed on the Cisco Unity server, you must use an Exchange 2003 server as the partner server.

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However, in some cases, an Exchange 2003 server may not be the best choice. Because of the amount of data that passes between the Cisco Unity server and the partner Exchange server, the partner server should be in the same site as the Cisco Unity server. When Cisco Unity subscriber mailboxes will be homed in Exchange on multiple sites and the only Exchange 2003 servers are on remote sites, do one of the following:

- Upgrade a local Exchange 2000 server to Exchange 2003 before you install Cisco Unity.
- Use an Exchange 2000 server in the same site as the Cisco Unity server.

When Cisco Unity subscriber mailboxes will be homed in Exchange 2003 and/or Exchange 2000 and will also be homed in Exchange 5.5, you must use an Exchange 2003 or Exchange 2000 server as the partner server.

## Installing Exchange Software on the Cisco Unity Server

You install Exchange administration software on the Cisco Unity server when Exchange is installed on a separate server. The version of administration software that you install must be the same as the version of Exchange installed on the partner Exchange server.

You can install Exchange 2000 on the Cisco Unity server, but it is supported only in the Voice Messaging configuration.

See the section that applies to the Exchange version on the partner server and the Cisco Unity configuration you are installing:

- [Installing Exchange 2003 Administration Software: Unified Messaging with Exchange on a Separate Server, page 6-3](#)
- [Installing Exchange 2000 Administration Software: Unified Messaging or Voice Messaging with Exchange on a Separate Server, page 6-4](#)
- [Installing Exchange 5.5 Administration Software: Unified Messaging with Exchange on a Separate Server, page 6-6](#)
- [Installing Exchange 2000: Voice Messaging with Exchange on the Cisco Unity Server, page 6-7](#)

## Installing Exchange 2003 Administration Software: Unified Messaging with Exchange on a Separate Server

**Note**

Cisco assumes that the Exchange environment is already set up and working before the Cisco Unity system is installed.

This section applies to the Cisco Unity Unified Messaging configuration.

When Exchange 2003 is installed on the partner server, you install Exchange 2003 administration software on the Cisco Unity server because it includes the Microsoft messaging API (MAPI). MAPI is the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

Later in the installation process, you specify the partner Exchange server that Cisco Unity connects with.

### To Install Exchange 2003 Administration Software on the Cisco Unity Server

- Step 1** On the Cisco Unity server, insert the Exchange Server 2003 disc in the CD-ROM drive.  
If the disc does not run automatically, browse to the root directory, and double-click **Setup.exe**.
- Step 2** Click **Exchange Deployment Tools**.
- Step 3** Click **Install Exchange System Management Tools Only**.
- Step 4** On the Install Exchange System Management Tools Only page, scroll down to Step 4 and click **Run Setup Now**.

**Note**

In early editions of Exchange 2003, Step 3 on the Install Exchange System Management Tools Only page incorrectly listed Windows Server 2003 Administration Tools Pack as required when the operating system is Windows 2000 Server. In later editions of Exchange 2003, this requirement was removed from Help, as explained in Microsoft Knowledge Base article 826966.

- Step 5** In the Welcome to Microsoft Exchange Installation wizard, click **Next**.
- Step 6** In the License Agreement dialog box, click **I Agree**, and click **Next**.

- Step 7** In the Component Selection dialog box, in the Action column, set the actions for the following three components:

<b>Microsoft Exchange 2003</b>	Change the action to <b>Custom</b> .
<b>Microsoft Exchange Messaging and Collaboration Services</b>	Change the action to <b>None</b> .
<b>Microsoft Exchange System Management Tools</b>	Leave the action as <b>Install</b> .

- Step 8** Click **Next**.
- Step 9** Follow the on-screen prompts to complete the installation.
- Step 10** Restart the server.

## Installing Exchange 2000 Administration Software: Unified Messaging or Voice Messaging with Exchange on a Separate Server



### Note

Cisco assumes that the Exchange environment is already set up and working before the Cisco Unity system is installed.

This section applies to both the Cisco Unity Unified Messaging and Voice Messaging configurations.

When Exchange 2000 is installed on the partner server, you install Exchange 2000 administration software on the Cisco Unity server because it includes the Microsoft messaging API (MAPI). MAPI is the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

Later in the installation process, you specify the partner Exchange server that Cisco Unity connects with. Do the following two procedures in the order listed.

### To Install Exchange 2000 Administration Software on the Cisco Unity Server

- Step 1** On the Cisco Unity server, insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive. If the disc does not run automatically, browse to the root directory, and double-click **Launch.exe**.
- Step 2** Click **Exchange Server Setup**.
- Step 3** Follow the on-screen prompts until the Product Identification dialog box appears.
- Step 4** Enter the key for Cisco Unity Message Store 2000 from the sticker located on the CD sleeve, and click **Next**.
- Step 5** In the Component Selection dialog box, in the Action column, set the actions for the following three components:

<b>Microsoft Exchange 2000</b>	Change the action to <b>Custom</b> .
<b>Microsoft Exchange Messaging and Collaboration Services</b>	Change the action to <b>None</b> .
<b>Microsoft Exchange System Management Tools</b>	Leave the action as <b>Install</b> .

- Step 6** Click **Next**.
- Step 7** Follow the on-screen prompts to complete the installation.
- Step 8** Restart the server.
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Exchange 2000 Service Pack 3 and the Exchange 2000 Server Post-Service Pack 3 Rollup that is described in Microsoft Knowledge Base article 824282 resolve an intermittent problem with message notification.



**Note** If Service Pack 3 and the rollup are not installed, Exchange 2000 Server sends extra UDP packets to ports on the Cisco Unity server that are not listening for packets. Such activity is seen by intrusion-detection systems as port scans or attacks.

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### To Install Exchange 2000 Service Pack 3

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- Step 1** On Cisco Unity Service Packs CD 2 or from the location to which you saved the downloaded Service Packs CD 2 image files, browse to the directory **Exchange\_2000\_SP3\Setup\I386**, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
- Step 4** If you have not already done so, repeat this procedure on the partner Exchange server and on every Exchange 2000 server on which Cisco Unity subscriber mailboxes are homed.
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### To Install the Exchange 2000 Post-Service Pack 3 Rollup

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- Step 1** From the location to which you extracted the latest Exchange 2000 updates recommended for use with Cisco Unity, browse to the directory **Post-SP3 Rollup**, and double-click **Exchange2000-KB824282-x86-<language>.exe**.
- or
- On the Cisco Unity Post-Install CD, browse to the directory **Exchange\_2000\_Post\_SP3\_Rollup\Setup\I386**, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
- Step 4** If you have not already done so, repeat this procedure on the partner Exchange server and on every Exchange 2000 server on which Cisco Unity subscriber mailboxes are homed.
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## Installing Exchange 5.5 Administration Software: Unified Messaging with Exchange on a Separate Server



### Note

Cisco assumes that the Exchange environment is already set up and working before the Cisco Unity system is installed.

This section applies to both the Cisco Unity Unified Messaging and Voice Messaging configurations.

When Exchange 5.5 is installed on the partner server, you install Exchange 5.5 administration software on the Cisco Unity server because it includes the Microsoft messaging API (MAPI). MAPI is the application programming interface that Cisco Unity uses to communicate with Exchange for addressing, sending, and retrieving messages.

This section contains three procedures. Do the procedures in the order listed, as applicable.

The first procedure, “[To Change the LDAP Port Number of the Exchange 5.5 Server \(When Active Directory Is Installed\)](#),” applies only if Active Directory is installed on the partner Exchange 5.5 server. Cisco Unity communicates with Exchange 5.5 by using Lightweight Directory Access Protocol (LDAP). Active Directory also uses LDAP, and it reserves port 389 for the protocol. The default LDAP port for Exchange 5.5 is also 389. The Active Directory LDAP port cannot be reconfigured, so the Exchange LDAP port number must be reset.

### To Change the LDAP Port Number of the Exchange 5.5 Server (When Active Directory Is Installed)

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- Step 1** On the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.
  - Step 2** In the site container, open the **Configuration** container.
  - Step 3** Under Configuration, click **Protocols**.
  - Step 4** In the right pane, double-click **LDAP (Directory) Site Defaults**.
  - Step 5** On the General tab, change Port Number to **2015** (or another available port number). Make note of the new port number, which you will need later in the installation process.
  - Step 6** Click **OK**, and close the Exchange Administrator.
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### To Install Exchange 5.5 Administration Software on the Cisco Unity Server

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- Step 1** On the Cisco Unity server, insert the Cisco Unity Message Store 5.5 disc in the CD-ROM drive. If the disc does not run automatically, browse to the root directory, and double-click **Launch.exe**.
  - Step 2** When the Microsoft Exchange Server Version 5.5 window appears, click **Setup Server and Components**.
  - Step 3** Click **Microsoft Exchange Server 5.5**.
  - Step 4** Accept the license agreement.
  - Step 5** Click **Complete/Custom**.
  - Step 6** Uncheck all check boxes except the **Microsoft Exchange Administrator** check box.
  - Step 7** Click **Continue**.

- Step 8** When you are prompted to enter a CD key, enter the key for Cisco Unity Message Store 5.5 from the sticker located on the CD sleeve.
- Step 9** Click **OK**.
- Step 10** Follow the on-screen prompts to complete the installation.
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#### To Install Exchange 5.5 Service Pack 4

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- Step 1** On Cisco Unity Service Packs CD 3, or from the location to which you saved the downloaded Service Packs CD 3 image files, browse to the directory **Exchange5.5\_SP4**, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
- Step 4** If Exchange 5.5 Service Pack 4 is not already installed on the partner Exchange server, repeat [Step 1](#) through [Step 3](#) on that server.
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## Installing Exchange 2000: Voice Messaging with Exchange on the Cisco Unity Server

This section applies to the Cisco Unity Voice Messaging configuration. Note that if the system is using failover, Exchange cannot be installed on the Cisco Unity server.

This section contains five procedures. Do the procedures in the order listed, as applicable. Later in the installation, you specify the partner Exchange server that Cisco Unity connects with.

Do the following procedure, “[To Run Forestprep on the Cisco Unity Server](#),” only if the Cisco Unity server is the first Exchange 2000 server in the forest.

#### To Run Forestprep on the Cisco Unity Server

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- Step 1** Confirm that all domain controllers are on line. (The Forestprep schema updates replicate only when all domain controllers are on line.)
- Step 2** On the Cisco Unity server, log on to Windows as a user who is a member of the Schema Admins group.
- Step 3** Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.
- Step 4** On the Windows Start menu, click **Run**, then run  
**<CD-ROM drive letter>:\setup\i386\setup.exe /forestprep**
- Step 5** Follow the on-screen prompts.
- Step 6** When you are prompted to enter a product identification number/CD key, enter the key for Cisco Unity Message Store 2000 from the sticker located on the CD sleeve.
- Step 7** Click **Finish**.
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Do the following procedure, “[To Run Domainprep on the Cisco Unity Server](#),” only if the Cisco Unity server is the first Exchange 2000 server in the domain.

#### To Run Domainprep on the Cisco Unity Server

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- Step 1** On the Cisco Unity server, log on to Windows as a user who is a member of the Schema Admins group.
  - Step 2** Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.
  - Step 3** On the Windows Start menu, click **Run**, then run  
`<CD-ROM drive letter>:\setup\i386\setup.exe /domainprep`
  - Step 4** Follow the on-screen prompts.
  - Step 5** When you are prompted to enter a product identification number/CD key, enter the key for Cisco Unity Message Store 2000 from the sticker located on the CD sleeve.
  - Step 6** If a warning appears about this being an insecure domain, click **OK**.
  - Step 7** Follow the on-screen prompts.
  - Step 8** Click **Finish**.
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The changes to the Active Directory schema—resulting from running Forestprep—may take 15 minutes or more to replicate throughout the forest. The changes must finish replicating before you can install Exchange.

#### To Install Exchange 2000 Server on the Cisco Unity Server

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- Step 1** Insert the Cisco Unity Message Store 2000 disc in the CD-ROM drive.  
If the disc does not run automatically, browse to the root directory, and double-click **Launch.exe**.
  - Step 2** Click **Exchange Server Setup**.
  - Step 3** Follow the on-screen prompts until you are prompted to enter a product identification number/CD key.
  - Step 4** Enter the key for Cisco Unity Message Store 2000 from the sticker located on the CD sleeve, and click **Next**.
  - Step 5** In the Component Selection dialog box, change the drive and path where the Exchange 2000 application files will be installed, if applicable. Specify the drive location you made note of in the “[Determining the Drive Locations for Files on the Cisco Unity System](#)” section on page 2-5. Do not change which components to install.
  - Step 6** Click **Next**.
  - Step 7** Follow the on-screen prompts until the installation is complete.
  - Step 8** Click **Finish**.
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Exchange 2000 Service Pack 3 and the Exchange 2000 Server Post-Service Pack 3 Rollup that is described in Microsoft Knowledge Base article 824282 resolve an intermittent problem with message notification.

**Note**

If Service Pack 3 and the rollup are not installed, Exchange 2000 Server sends extra UDP packets to ports on the Cisco Unity server that are not listening for packets. Such activity is seen by intrusion-detection systems as port scans or attacks.

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**To Install Exchange 2000 Service Pack 3**

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- Step 1** On Cisco Unity Service Packs CD 2 or from the location to which you saved the downloaded Service Packs CD 2 image files, browse to the directory **Exchange\_2000\_SP3\Setup\I386**, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
- Step 4** If you have not already done so, repeat this procedure on the partner Exchange server and on every Exchange 2000 server on which Cisco Unity subscriber mailboxes are homed.
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**To Install the Exchange 2000 Post-Service Pack 3 Rollup**

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- Step 1** From the location to which you extracted the latest Exchange 2000 updates recommended for use with Cisco Unity, browse to the directory **Post-SP3 Rollup**, and double-click **Exchange2000-KB824282-x86-<language>.exe**.
- or
- On the Cisco Unity Post-Install CD, browse to the directory **Exchange\_2000\_Post\_SP3\_Rollup\Setup\I386**, and double-click **Update.exe**.
- Step 2** Follow the on-screen prompts to complete the installation.
- Step 3** Restart the server.
- Step 4** If you have not already done so, repeat this procedure on the partner Exchange server and on every Exchange 2000 server on which Cisco Unity subscriber mailboxes are homed.
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In the next procedure, you move the Exchange 2000 transaction and system logs, and databases to the locations you made note of in the [“Determining the Drive Locations for Files on the Cisco Unity System”](#) section on page 2-5.

**To Move the Exchange 2000 Transaction and System Logs, and Databases**

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- Step 1** Start Exchange System Manager.
- Step 2** Right-click the Storage Group for the log files you want to move, then click **Properties**.
- Step 3** Click the **General** tab.
- Step 4** Click **Browse**.
- Step 5** Locate the type of logs you want to move. Note that both system logs and transaction logs can be moved in the same operation.
- Step 6** Click the new location for the log files, or create a new folder.

- Step 7** Click **Apply**.
- Step 8** Click **Yes** twice.
- Step 9** Do a full online Exchange backup to complete the operation.
- Step 10** Move the Exchange 2000 databases. Refer to Knowledge Base articles 155761 and 257184 on the Microsoft Product Support Services website.
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## Installing the Latest Microsoft Service Packs and Updates for Exchange

Install the latest Microsoft service packs (if any) and updates for Exchange that are recommended for use with Cisco Unity. These are the service packs and updates that you downloaded in the “[Downloading Software for the Installation](#)” section on page 2-4.

Some Microsoft updates can be installed only after a prerequisite service pack has been installed. Install the latest Exchange service packs recommended for use with Cisco Unity, if any, before you install updates.

### To Install the Latest Microsoft Service Packs for Exchange

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Follow the instructions that you printed or downloaded when you downloaded the service packs.

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### To Install the Latest Microsoft Updates for Exchange

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- Step 1** Browse to the location of the downloaded Microsoft updates, or insert the Cisco Unity Post-Install disc in the CD-ROM drive.
- Step 2** Browse to each of the applicable directories and install the correct language version of each update: English (ENU), French (FRA), German (DEU), or Japanese (JPN). (For example, if the French version of Windows 2000 Server is installed on the Cisco Unity server, install the French version of any Windows 2000 Server updates.)

To speed the installation, you may want to:

- Install each update at a command prompt by using the /z option, so you do not have to restart the computer after installing each update.
- Install each update at a command prompt by using the /m option, so the update installs without displaying any dialog boxes.
- Create a batch file that installs all of the updates at once.

For more detailed information, refer to Microsoft Knowledge Base article 296861, *How to Install Multiple Windows Updates or Hot Fixes with Only One Reboot*.

- Step 3** Restart the Cisco Unity server.
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## Extending the Active Directory Schema for Cisco Unity (Exchange 2003 and Exchange 2000 Only)

With Exchange 2003 and Exchange 2000, several changes need to be made to the Active Directory schema for Cisco Unity to work properly. To see the changes that the schema update program makes, browse to the directory Schema\LdifScripts on Cisco Unity DVD 1 or CD 1, and view the file Avdirmonex2k.ldf.

Changes to the Active Directory schema may take 15 minutes or more to replicate throughout the forest. The changes must finish replicating before you can install Cisco Unity.

### To Extend the Active Directory Schema for Cisco Unity

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- Step 1** Confirm that all domain controllers are on line. (The Active Directory schema extensions replicate only when all domain controllers are on line.)
  - Step 2** On the computer that has the schema master role (typically the first DC/GC in the forest), log on to Windows as a user who is a member of the Schema Admins group.
  - Step 3** On Cisco Unity DVD 1 or CD 1, or from the location to which you saved the downloaded Cisco Unity CD 1 image files, browse to the directory **ADSchemaSetup**, and double-click **ADSchemaSetup.exe**.
  - Step 4** In the Active Directory Schema Setup dialog box, check the **Exchange 2000 or Exchange 2003 Directory Monitor** check box.
  - Step 5** If you plan to use VPIM Networking or Cisco Unity Bridge Networking, check the applicable check boxes.
  - Step 6** Click **OK**.
  - Step 7** When the schema extension has finished, Ldif.log and Ldif.err files are saved to the desktop. View the contents of the files to confirm that the extension completed successfully.
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## Creating Organizational Units and a Mailbox Store (Exchange 2003 and Exchange 2000 Only)

With Exchange 2003 and Exchange 2000, users and distribution lists are created in locations that you specify. If you want users and distribution lists to be created in custom organizational units (OUs), create the OUs now. Both OUs need to be in the same domain, but they do not need to be in the same domain as the Cisco Unity server. For information on creating OUs, refer to Active Directory Users and Computers Help.

You also have the option to create a custom mailbox store as the default for subscribers that are added through the Cisco Unity Administrator or that are imported from a CSV file. For information on creating a custom mailbox store, refer to Exchange System Manager Help. (Later in the installation process, you configure Cisco Unity to use the mailbox store.)

If the system is using failover, you must use the same custom OUs and mailbox stores for both Cisco Unity servers.

