



# Upgrading a Cisco Unity 2.x System to Version 3.1

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## Upgrades from Cisco Unity Versions Earlier Than 2.3(4.104) Are Not Supported

The Cisco Unity Database Export and Database Import utilities, which let you export subscriber and other information from a 2.x system and import it into a 3.1 system, do not work on Cisco Unity systems earlier than version 2.3(4.104). To upgrade one of these systems, you need to import subscribers from Exchange or from a CSV file. Refer to the “Creating Subscriber Accounts” chapter of the *Cisco Unity System Administration Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_administration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_books_list.html).

## System Key

Customers with Cisco Unity versions earlier than 2.3(4.104) must get a new system key to run Cisco Unity version 3.1.

Customers with Cisco Unity version 2.3(4.104) or later need an activation code to upgrade the system key during the Cisco Unity Setup program.

## Duration of the Upgrade

The amount of time required to upgrade from Cisco Unity version 2.x to 3.1 depends on a number of variables. The following list is a very broad estimate of the duration of an upgrade:

<b>Installing the operating system and other third-party software</b>	About 6 hours, depending on complexity of installation.
<b>Exporting data from Cisco Unity 2.x and importing data into Cisco Unity 3.1</b>	See duration data in <a href="#">Table 4-1 on page 4-3</a> .
<b>Reintegrating the upgraded Cisco Unity server with the phone system</b>	About 2 hours.
<b>Testing</b>	About 2 hours.

## Data from Duration Tests

To test the duration of exporting data, uninstalling Cisco Unity 2.x, and importing data into Cisco Unity 3.1, we upgraded from Cisco Unity 2.4(6) on a server with an Intel Pentium II 450-MHz processor, 512 MB of RAM, and no other system activity.

The duration of these tasks will vary depending on the speed of the processor and the amount of RAM in the Cisco Unity server. In addition, for Unified Messaging configurations in which Cisco Unity subscribers are homed on other Exchange servers, the duration will vary depending on the speed of the network.

We used three databases for our tests:

<b>Database 1</b>	1,150 objects: 500 mail users, 500 subscriber call handlers, 100 other call handlers, other default and random objects.
<b>Database 2</b>	3,300 objects: 1,500 mail users, 1,500 subscriber call handlers, 250 other call handlers, other default and random objects.
<b>Database 3</b>	5,300 objects: 2,500 mail users, 2,500 subscriber call handlers, 250 other call handlers, other default and random objects.

(The number of objects on your system appears in the Cisco Unity Database Export utility before you run the export.)

All mail users had three greetings and a recorded name, and all call handlers had three greetings. [Table 4-1](#) lists the resulting duration data.

Table 4-1 Duration Data

Database	Duration of Export and Size of Exported Database	Duration of Uninstallation	Duration of Import
1	12 min. 121 MB	20 min.	Exchange 2000: 1 hr. 27 min. Exchange 5.5: 49 min.
2	28 min. 352 MB	1 hr. 3 min.	Exchange 2000: 4 hr. 50 min. Exchange 5.5: 2 hr. 44 min.
3	60 min. 558 MB	1 hr. 29 min.	Exchange 2000: 9 hr. 32 min. Exchange 5.5: 7 hr. 0 min.

## Task List for Upgrading from Cisco Unity 2.x to 3.1

Some of the following tasks apply only to specific situations, and are noted as such. If a task does not apply to your situation, skip it.

If you plan to set up failover for the Cisco Unity system, set up both primary server and secondary servers before you configure them for failover.



### Caution

If you plan to change the phone system integration (for example, by changing from a circuit-switched phone system to Cisco CallManager), do not make any changes until you set up the integration. If you change the integration too soon, subscriber and call handler settings will not match integration settings, and transfers will fail.

1. If you do not have Cisco Unity CDs for the latest version, download the applicable full-disc files from the Cisco Unity 3.1 Software Download page at <http://www.cisco.com/cgi-bin/tablebuild.pl/unity-31>.

For information on downloading the files, refer to the release notes for the latest version. Release notes are available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_release_notes_list.html).

2. Generate and print reports on data for the existing Cisco Unity system, if applicable. Refer to the “Reports” chapter of the *Cisco Unity System Administration Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_administration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_books_list.html).



### Caution

The Cisco Unity Database Export utility does not export data that Cisco Unity uses to generate reports. In addition, when you reinstall all software on an existing server, you delete all the existing Cisco Unity software and data, including data that Cisco Unity uses to generate reports. If you want any reports from the existing Cisco Unity system, generate them now.

3. Review the consistency of the Cisco Unity 2.x database, and fix any errors. See the “[Reviewing the Consistency of the Cisco Unity 2.x Database](#)” section on page 4-5.
4. Back up the Cisco Unity server completely, and back up the Exchange servers that are home servers for Cisco Unity subscribers. See the “[Backing Up Messages and Other Data](#)” section on page 4-7.

5. Write down the existing Cisco Unity data that will not be exported or cannot be imported, then do the export. See the “[Exporting Data from Cisco Unity](#)” section on page 4-7.
6. *If the system is using the SMTP Networking option (that is, if the system is set up for messaging with a remote Cisco Unity server outside of the local Exchange organization):* Delete SMTP locations and uninstall the Voice Connector. Refer to the “Removing SMTP Networking” section in the “Upgrade and Uninstall Information” chapter of the *Networking in Cisco Unity Guide, Release 3.1*, which is available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guide_books_list.html).
7. *Unified Messaging in an Existing Exchange Site configuration only:* Uninstall Cisco Unity 2.x. See the “[Uninstalling Cisco Unity Version 2.x](#)” section on page 4-11.

**Caution**

You must uninstall Cisco Unity to remove Cisco Unity properties from Exchange users throughout the Exchange site. Otherwise, you will have to manually remove Cisco Unity properties from each Exchange user in raw mode before you can create subscriber accounts on the upgraded Cisco Unity server by importing mail users into Exchange.

8. *If Cisco Unity will still be integrated with a circuit-switched phone system after the upgrade to Cisco Unity 3.1:* Determine the current setting of the Dialogic quiet parameter. See the “[Determining the Current Setting for the Intel Dialogic Quiet Parameter](#)” section on page A-10.
9. Reinstall all software on the Cisco Unity server. Follow the tasks in the “[Part 1: Installing and Configuring the Cisco Unity Server](#)” section of the task list in the “[Overview of Mandatory Tasks for Installing Cisco Unity](#)” chapter. Note the following:
  - *With circuit-switched phone systems only:* Add or replace voice cards, if applicable. If the Cisco Unity server contains cards that are not supported with Cisco Unity 3.1, the cards must be replaced before you upgrade because Cisco Unity 3.1 will not run with unsupported cards. In addition, remove any fax cards. Installing fax software on the Cisco Unity server is no longer supported.
  - After you install Cisco Unity software, do not add any objects (such as subscribers and distribution lists) or remove any default objects until after you import data from the existing Cisco Unity system. The Cisco Unity Database Import utility requires that data be imported into a clean Cisco Unity system.
10. *Failover only:* Configure the primary and secondary servers for failover. Refer to the “Configuring Cisco Unity Failover” chapter of the *Cisco Unity Failover Configuration and Administration Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guide_books_list.html).
11. Import Windows NT/Active Directory accounts into Exchange 5.5, if applicable. See the “[Importing Windows NT/Active Directory Accounts into Exchange 5.5 \(Selected Configurations Only\)](#)” section on page 4-14.
12. Import data exported from the existing Cisco Unity 2.x system. See the “[Importing Data Back into Cisco Unity](#)” section on page 4-15.
13. If you want to restore messages and other Exchange data, use the backup you created in Step 4. This step is not necessary if the Cisco Unity 2.x system was installed in the Unified Messaging in an Existing Exchange Site configuration and no Exchange accounts were homed on the Cisco Unity server.
14. Manually re-enter custom data. See the “[Re-entering Custom Data](#)” section on page 4-17.

15. *If Cisco Unity is still integrated with a circuit-switched phone system after the upgrade to Cisco Unity 3.1:* Reset the Intel Dialogic quiet parameter. See the “Resetting the Intel Dialogic Quiet Parameter” section on page A-13.
16. Back up the Cisco Unity server. Refer to *White Paper: Backing Up and Restoring a Cisco Unity System*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_technical\\_reference\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_technical_reference_list.html).
17. Enable automatic gain control, and adjust the volume of recordings for greetings and recorded names. See the “Adjusting the Automatic Gain Control Setting” section on page 3-16.
18. *If Digital Networking, AMIS Networking, or SMTP Networking will be added to the system:* Set up the networking option. Refer to the *Networking in Cisco Unity Guide, Release 3.1*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guide_books_list.html).
19. *If Bridge Networking will be added to the system:* Set up the Cisco Unity Bridge server. Refer to the “Task List for Installing the Cisco Unity Bridge” chapter of the *Cisco Unity Bridge Installation Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_guides\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_guides_books_list.html).
20. *If Bridge Networking will be added to the system:* Set up Cisco Unity and the Bridge for networking. Refer to the “Task List: Setting Up Cisco Unity and the Bridge for Networking” section in the “Bridge Networking” chapter of the *Cisco Unity Bridge Networking Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_installation\\_and\\_configuration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_installation_and_configuration_guide_books_list.html).

## Reviewing the Consistency of the Cisco Unity 2.x Database

Cisco Unity version 3.1 includes the Cisco Unity Directory Walker utility to find invalid links, and incorrect and stranded objects in the Exchange directory. You fix any errors before exporting data.

The Directory Walker utility creates a log file that contains a list of invalid references. In addition, the utility includes options to automatically remove call handlers that are not associated with a subscriber (orphaned call handlers) and to remove Cisco Unity properties from Exchange mail users who do not have a primary call handler.

The Directory Walker utility reviews each subscriber account and confirms that:

- Display Name is not blank.
- The primary call handler exists and is valid.
- The primary call handler is not shared by another mail user.
- The class of service reference exists and is valid.
- The location exists and is valid.
- The language selected for the mail user is installed on the Cisco Unity server (the utility confirms this only on Cisco Unity versions 2.45 and later).
- The phone system ID is valid and references a phone system integration on the Cisco Unity server (the utility confirms this only on Cisco Unity versions 2.45 and later).

Directory Walker also reviews each call handler and confirms that:

- The owner and the recipient exist and are valid. (The call handler is not orphaned.)

- The location exists and is valid.
- For non-primary call handlers, the Text Name is not blank.
- For primary call handlers, the DTMF\_ID is not blank.
- The DTMF\_ID does not conflict with another object.
- The after-message action links to a valid object.
- All one-key rules (caller-input keys) link to valid objects.
- The after-greeting action links to a valid object for each greeting rule.
- The schedule reference is valid.
- The Standard greeting is active. If not, Directory Walker makes it active.
- The Standard transfer rule is active. If not, Directory Walker makes it active.

#### To Install the Cisco Unity Directory Walker Utility

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- Step 1** Insert Cisco Unity 3.1 CD 1 in the CD-ROM drive.
- Step 2** Browse to the directory **Utilities\dbWalker2x**, and double-click **Setup.exe**.
- Step 3** Follow the on-screen prompts.
- Step 4** If you are prompted to restart the server, do so.
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#### To Run the Cisco Unity Directory Walker Utility

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- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Confirm that Cisco Unity is running.
- Step 3** On the Windows Start menu, click **Programs > Directory Walker > Directory Walker**.
- Step 4** Uncheck the **Remove Orphaned Call Handlers Automatically** check box and the **Remove Subscriber Properties on Mail Users That Have No Primary Call Handlers** check box. This produces a report so you can correct errors before you delete orphaned call handlers and subscriber properties.
- Step 5** Specify a name and location for the Directory Walker log file.
- Step 6** Click **Walk Database**.
- Step 7** When Directory Walker has finished, review the log file that you specified in [Step 5](#). To find problems, search for the string (**error**). Each error listed in the log includes detailed information so you can correct it.
- Step 8** When you have corrected the errors that Directory Walker reported, repeat [Step 3](#) through [Step 7](#) until the only errors in the log file are orphaned call handlers and mail users that have no primary call handlers. (If you have no such errors, you are finished with this procedure.)
- Step 9** Run the Directory Walker utility one more time. Browse to the directory **TechTools**, and double-click **DbWalker.exe**.
- Step 10** This time, check the **Remove Orphaned Call Handlers Automatically** check box and the **Remove Subscriber Properties on Mail Users That Have No Primary Call Handlers** check box.
- Step 11** Specify a name and location for the Directory Walker log file.
- Step 12** Click **Walk Database**.

- Step 13** When Directory Walker has finished, search the log file for the string (**error**) to find which orphaned call handlers were removed and which mail users had their Cisco Unity subscriber properties removed.
- Step 14** Copy the log file to a network drive or to a high-capacity removable storage device. If you encounter problems with the upgrade process, Cisco TAC requires this file for troubleshooting.
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## Backing Up Messages and Other Data

The Cisco Unity Database Export Utility does not back up messages, which are stored in Exchange. Back up the Cisco Unity server completely by using Veritas Backup Exec or another Exchange-aware backup utility. In addition, if you are upgrading a Cisco Unity system that was installed in the Unified Messaging in an Existing Exchange Site configuration, back up the Exchange servers that are home servers for Cisco Unity subscribers.

For information on using Backup Exec to back up the Cisco Unity server, refer to *White Paper: Backing Up and Restoring a Cisco Unity System*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod\\_technical\\_reference\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/prod_technical_reference_list.html). For information on using another backup utility, refer to the manufacturer documentation.



### Caution

The Cisco Unity Database Export utility does not back up messages or other Exchange-specific data. You must back up by using an Exchange-aware backup utility.

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## Exporting Data from Cisco Unity

Cisco Unity version 3.1 includes the Cisco Unity Database Export utility for exporting subscriber and system information from earlier versions of the product.



### Caution

Upgrading to Cisco Unity 3.1 requires that you completely remove the previous version of Cisco Unity and then install the new version. If you do not export Cisco Unity data, you will have to recreate subscriber accounts, call handlers, and other objects and properties.

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Data is exported to a Microsoft Access database. The size of the database depends on the number and size of objects and properties in the Cisco Unity 2.x database. (For example, exporting all objects and properties on a system with 1,500 subscribers, 2,000 call handlers, and short greetings for 700 of the call handlers generated a 300 MB database.)

Most of the Cisco Unity data stored on the Cisco Unity server and in Exchange is exported by the Cisco Unity Database Export utility and can be imported into Cisco Unity 3.1 with the Cisco Unity Database Import utility. The following sections detail how data is handled and how to run the export utility.

## Data That Is Exported

**Table 4-2** Data Exported by the Cisco Unity Database Export Utility

Data	Qualifications
Subscriber information	<p>Exported, except for the following values on each subscriber account:</p> <ul style="list-style-type: none"> <li>• Phone password.</li> <li>• Last password change date/time.</li> <li>• Account lockout status.</li> <li>• Last contact time stamp.</li> <li>• SMTP address, unless the user is an Internet subscriber. This value is generated automatically when you import subscribers into Cisco Unity 3.1.</li> <li>• Home server. This value is assigned automatically when you import subscribers into Cisco Unity 3.1.</li> </ul> <p>New users are homed on the Cisco Unity server, or—if Exchange is not installed on the Cisco Unity server—the user is created on the Exchange server to which Cisco Unity is connected.</p>
Subscriber templates	<p>For Cisco Unity versions earlier than 2.4, templates are not exported.</p> <p>For Cisco Unity versions 2.4 and later, templates are exported except for the public distribution lists that were associated with the templates. Public distribution lists will need to be manually readded to subscriber templates on the Cisco Unity 3.1 system.</p>
Call handlers	Exported.
Interview handlers	Exported.
Class of service information	Exported.
Restriction tables	Exported.
Locations	<p>Locations that were created on the local Cisco Unity server (locations that have a matching System ID to the local Cisco Unity server) are exported.</p> <p>All subscribers added to the Cisco Unity 3.1 system will be associated with the primary location object created by the Cisco Unity 3.1 Setup program. No subscribers will be associated with any other location object. The other location objects imported will be used for blind addressing only.</p>
Name lookup handler	Exported.
Password policy settings	Exported.
Schedules	<p>If the site added schedules and deleted system default schedules, the updated system will have both the added schedules and the system defaults. The Cisco Unity Database Import utility has no provision for removing existing data.</p>

**Table 4-2 Data Exported by the Cisco Unity Database Export Utility (continued)**

Data	Qualifications
Holidays	For Cisco Unity versions earlier than 2.4, templates are not exported. Holidays will need to be manually re-entered on the Cisco Unity 3.1 system.
Port configuration information	All the port capability settings information (such as answer, dial, TRAP, and out of service), the phone system with which the port is associated (for dual phone system configurations), the extension number associated with the port, and the MWI capability flag in the registry are exported.

## Data That Is Not Exported, and Data That Is Exported But Not Imported

### Phone System Settings

To restore the current phone system settings, you need to follow the procedures in the Cisco Unity integration guide for your phone system, later in the upgrade process.

### System Prompts

Customized system prompts are not supported. All system prompts are automatically deleted and replaced whenever you upgrade Cisco Unity.

### Settings on the Configuration Pages in the Cisco Unity Administrator

You may want to write down settings on the Configuration pages in the Cisco Unity Administrator, including site name, file aging settings, RSA SecurID security settings, contact information, recording options, and languages loaded.



#### Caution

If you do not install and load the same phone languages on the Cisco Unity 3.1 system as were installed and loaded on the 2.x system, subscribers who are configured to use the missing languages will not be able to hear the system conversation in their languages.

### Public Distribution Lists

Public distribution lists (PDLs) are not exported, but because list members are stored in Exchange, PDLs are preserved in the following cases:

- When Cisco Unity is installed in the Unified Messaging in an Existing Exchange Site configuration.
- When you are not reinstalling Exchange on the Cisco Unity server.

When PDLs will not be preserved, you can export them from Exchange 5.5 to a CSV file. After you upgrade to Cisco Unity 3.1, you import them into Exchange 5.5 or Active Directory groups (Exchange 2000), then use the Cisco Unity Administrator to import them back into Cisco Unity. For information on exporting PDLs from Exchange 5.5, refer to Exchange 5.5 Help.

### Call Routing Rules

Call routing rules are exported, but they cannot be imported, and you cannot easily read the routing-rules file that is saved in the CommServer\BackupData directory. The information is exported for the benefit of technicians.

If you added any call routing rules to Cisco Unity 2.x, write down the settings for those rules so you can reproduce them in Cisco Unity 3.1. (The default routing rules can be changed only with the help of Cisco TAC, so you generally should not have to write down the settings for those rules.)

#### To Write Down the Settings for Customized Call Routing Rules

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- Step 1** In the Cisco Unity Administrator, go to **Call Management > Call Routing > Direct Calls**.
- Step 2** In the Routing Table, click each customized routing rule and write down the settings for that rule.
- Step 3** Go to **Call Management > Call Routing > Forwarded Calls**.
- Step 4** In the Routing Table, click each customized routing rule and write down the settings for that rule.
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#### Phone System Files and Windows Registry Keys

Many Cisco Unity-related Windows registry keys and attributes in the Cisco Unity phone system files can be customized. Some of these customizable attributes are no longer relevant for Cisco Unity 3.1—and some may even cause problems—so changes to the registry and phone system files are exported but cannot be imported.

After you run the Cisco Unity Database Import utility, you can find the settings from the Cisco Unity 2.x server on the Cisco Unity 3.1 server in the directory `CommServer\BackupData`. The directory will contain:

- The phone system file currently active on the Cisco Unity 2.x system.
- All phone system files in the `Intlib` directory that have an `.avd` extension: `Avsmdi.avd`, `Avanalog.avd`, `Averic.avd`, `Avfuji.avd`, `Avdcs.avd`, `Avhcx.avd`, `Avmci.avd`, and `Avtosh.avd`.
- The entire ActiveVoice tree in the Windows registry. The tree is saved in a file named `RegistryTree.old`.

## Installing and Running the Cisco Unity Database Export Utility

If Cisco Unity version 2.x is installed on a server running Windows NT 4.0 and if the existing version of Cisco Unity is earlier than 2.4, install Microsoft Data Access Components (MDAC) before you install and run the Database Export utility.



#### Caution

Do not install MDAC on a Cisco Unity server running Windows 2000 Server.

#### To Install MDAC

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- Step 1** Insert Cisco Unity 3.1 CD 1 in the CD-ROM drive.
- Step 2** Browse to the directory `Mdac\ENU`, and double-click `Mdac_typ.exe`.
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#### To Install the Cisco Unity Database Export Utility

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- Step 1** Insert Cisco Unity 3.1 CD 1 in the CD-ROM drive.

- Step 2** Browse to the directory **Utilities\ExportUnity2xData\Setup**, and double-click **Setup.exe**.
  - Step 3** Follow the on-screen prompts.
  - Step 4** If you are prompted to restart the server, do so.
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#### To Run the Cisco Unity Database Export Utility

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- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Confirm that the location to which you are exporting has enough space for the export database. See the [“Exporting Data from Cisco Unity” section on page 4-7](#). Without enough space, the export will fail and you will have to run the export again.
- Step 3** Exit the Cisco Unity software. (The utility will exit Cisco Unity automatically before it begins exporting data, if the software is still running.)
- Step 4** On the Windows Start menu, click **Programs > Unity > Database Export**.
- Step 5** Specify which information to include in the database. For each property that you exclude, the export and import processes will be faster and the database will be smaller.

**Caution**

Cisco strongly recommends that if you choose to exclude properties from the export, that subscriber greetings and recorded names be the only properties that you choose not to export.

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If you exclude subscriber greetings and recorded names, you can set the Cisco Unity 3.1 system to play the first-time enrollment conversation for all subscribers when you import the database. The conversation prompts subscribers to record a greeting and name if none exist.

- Step 6** Specify the names and locations for the database file (which contains all the data listed in the [“Data That Is Exported” section on page 4-8](#)) and the log file (which logs the progress of the export and which Cisco TAC requires for any troubleshooting).

**Caution**

Make sure there is enough room in the location you choose for the database file, or the export will fail. In testing, exporting all objects and properties on a system with 1,500 subscribers, 2,000 call handlers, and short greetings for 700 of the call handlers generated a 300 MB database.

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- Step 7** Click **Export Data**. If necessary, you can click **Exit** to interrupt the export before it finishes.
  - Step 8** When the export finishes, a dialog box displays the number of errors that the export encountered. If there are any errors, display the log file and search for the string (**error**) to find and review each error.
  - Step 9** Copy the database and log files that you specified in [Step 6](#) from the Cisco Unity server to a network drive or to a high-capacity removable storage device.
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## Uninstalling Cisco Unity Version 2.x

Cisco Unity version 3.1 includes the Cisco Unity Uninstaller utility for uninstalling Cisco Unity version 2.x.

Uninstall Cisco Unity 2.x only if the Cisco Unity system is installed in the Unified Messaging in an Existing Exchange Site configuration.


**Caution**

If the Cisco Unity system is installed in the Unified Messaging in an Existing Exchange Site configuration, you must uninstall Cisco Unity to remove Cisco Unity properties from Exchange users throughout the Exchange site. Otherwise, you will have to manually remove Cisco Unity properties from each Exchange user in raw mode before you can create subscriber accounts on the upgraded Cisco Unity server by importing mail users into Exchange.

## The Cisco Unity Uninstaller Utility

When you run the utility:

- All Cisco Unity (Av) services are stopped, unregistered, and deleted.
- All Cisco Unity custom data is deleted from all mail users in the Exchange directory who are associated with the local Cisco Unity server. This data is not removed for users who are associated with other Cisco Unity servers that may be installed in the Exchange site. Properties that are not specific to Cisco Unity are not affected.
- All Cisco Unity objects on the current Cisco Unity server (such as call handlers and class of service objects) are deleted from the existing Exchange directory.
- The Unaddressed Messages and Unaddressed Faxes PDLs added by Cisco Unity are deleted from the recipients/distribution lists container of the local server. If this is the last Cisco Unity server in the site, the All Subscribers and System Event Messages PDLs are deleted from the site.
- The Example Administrator, Example Subscriber, and Cisco Unity\_<MachineName> accounts are deleted from the recipients container of the local Cisco Unity server.

If the Cisco Unity system you are upgrading is version 2.3.x, you also need to manually remove the Windows NT accounts for Example Administrator and Example Subscriber.

- All Cisco Unity greetings are deleted from the Exchange RES folder.
- Cisco Unity-related registry entries are deleted from the registry.
- The Cisco Unity status-bar application is deleted from the Windows Startup menu.
- The Cisco Unity program group is deleted from the Windows Start menu.
- The Cisco Unity Administrator and ActiveAssistant icons are deleted from the desktop.
- The CommServer directory and its subdirectories are deleted from the hard disk.
- The Cisco Unity-specific directories are deleted from the Wwwroot directory.
- Some Cisco Unity-specific DLLs are deleted from the System32 directory.

## Option to Skip Removal of Exchange Objects

If you have manually removed the “Unity” folder from Exchange, reinstalled Exchange, or want the Cisco Unity Uninstaller utility to skip the removal of all Exchange objects, run the Uninstaller utility with the “/SkipDOH” command line option. The following items are retained:

- All Cisco Unity custom data for all mail users in the Exchange directory who are associated with the local Cisco Unity server.
- All Cisco Unity objects on the current Cisco Unity server in the existing Exchange directory.

- The Example Administrator, Example Subscriber, and Cisco Unity\_<MachineName> accounts in the recipients container of the local Cisco Unity server.

The “/SkipDOH” command line option can be useful if you reinstalled Exchange but forgot to remove Cisco Unity first, and you want to clean up all the Cisco Unity-specific files on your hard disk and in the registry before installing a new version of Cisco Unity.

## Installing and Running the Cisco Unity Uninstaller Utility

This section contains procedures for installing the Cisco Unity Uninstaller utility on a Windows 2000 Server system and on a Windows NT system. Do the installation procedure for your version of Windows.

### To Install the Cisco Unity Uninstaller Utility (Windows 2000 Server)

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- Step 1** Insert Cisco Unity 3.1 CD 1 in the CD-ROM drive.
- Step 2** Browse to the directory **Utilities\UninstallUnity2x\Setup**, and double-click **Setup.exe**.
- Step 3** Follow the on-screen prompts.
- You do not need to restart the server before you run the utility.
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### To Install the Cisco Unity Uninstaller Utility and ADSI (Windows NT)

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- Step 1** Insert Cisco Unity 3.1 CD 1 in the CD-ROM drive.
- Step 2** Browse to the directory **Utilities\UninstallUnity2x\Setup**, and double-click **Setup.exe**.
- Step 3** Follow the on-screen prompts.
- Step 4** When the installation finishes, browse to the directory in which you installed the Uninstaller utility, and double-click **Ads.exe**.
- Step 5** Follow the on-screen prompts to install Active Directory Service Interface (ADSI).
- Step 6** Restart the server.
- 

### To Run the Cisco Unity Uninstaller Utility

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- Step 1** If the Windows Program menu item for Cisco Unity was renamed from “Unity,” change the name back to “Unity” now, or menu items will not be removed during the uninstall.
- Step 2** Log on to Windows by using the Cisco Unity installation account.
- Step 3** On the Windows Start menu, click **Programs > Unity Uninstaller > Unity Uninstaller**.
- Step 4** Follow the on-screen prompts to complete the Cisco Unity uninstall.

If you are prompted to stop IIS and NNTP services, click **OK** to continue.

In some cases, a dialog box may appear explaining that you will need to manually remove the Unity folder from Exchange. Note this so that you can remove the folder later.

**Caution**

Do not interrupt the Cisco Unity Uninstaller utility. Depending on the number of subscribers and the speed of the Cisco Unity server, the utility may take an hour or more to complete. If you interrupt the uninstall program, you cannot restart it. You will need to call Cisco TAC for information on completing the uninstall manually. For more information on the duration of the uninstall, see the “[Duration of the Upgrade](#)” section on page 4-2.

**Step 5**

If the dialog box on manually removing the Unity folder from Exchange did not appear in [Step 4](#), skip to [Step 10](#).

If the dialog box on manually removing the Unity folder from Exchange appeared in [Step 4](#), remove it now. Start the Exchange Administrator in raw mode:

```
<drive>:\Exchsrvr\bin\Admin.exe -r
```

**Caution**

Delete the Unity folder from Exchange only if there are no other Cisco Unity servers on the site.

**Step 6**

Select the Unity folder.

**Step 7**

On the Exchange Administrator menu, click **Edit > Delete Raw Object**.

**Step 8**

Confirm that you want to delete the folder.

**Step 9**

Close the Exchange Administrator.

**Step 10**

If the system you are upgrading is version 2.3.x, manually remove the Windows NT accounts for Example Administrator and Example Subscriber.

## LDAP Port Error with the Cisco Unity Uninstaller Utility

If the uninstall does not start and you get an error message that indicates the LDAP port is incorrect, one of the following problems has occurred:

- The wrong LDAP port was specified in the Uninstaller utility.

To determine which LDAP port the Cisco Unity server is using, in the Exchange Administrator, open the site container, open the Configuration container, click **Protocols**, and double-click **LDAP**. If necessary, you can change this value at the server level instead of the site level.

- Active Directory Service Interface was not installed (Windows NT only). See the “[To Install the Cisco Unity Uninstaller Utility and ADSI \(Windows NT\)](#)” section on page 4-13 to install ADSI.

## Importing Windows NT/Active Directory Accounts into Exchange 5.5 (Selected Configurations Only)

If the Cisco Unity 3.1 system is using Exchange 5.5, you may have to import Windows NT/Active Directory accounts into Exchange before you import Cisco Unity data into Exchange.

When you exported data from the Cisco Unity 2.x system by using the Database Export utility, the utility exported the Exchange alias for every subscriber. When you import data back into Cisco Unity 3.1, the Database Import utility will look in Exchange for subscribers by alias. If an alias does not exist in Exchange but does exist in Windows NT/Active Directory, the import process will not import that

subscriber. Therefore, if the aliases that you exported from Cisco Unity 2.x still exist in Windows NT/Active Directory but do not exist in Exchange, you need to import the Windows NT/Active Directory accounts into Exchange 5.5 before you can use the Database Import utility to import data back into Cisco Unity.

### To Import Windows NT/Active Directory Accounts into Exchange 5.5

- 
- Step 1** On the Windows Start menu, click **Programs > Exchange > Microsoft Exchange Administrator**.
  - Step 2** In the Exchange Administrator, click **Tools > Extract Windows NT Account List**.
  - Step 3** Click the domain and domain controller where Windows NT/Active Directory accounts are stored.
  - Step 4** Click **Browse**, and specify the name and location of the output file. The file will be stored in CSV format.
  - Step 5** Click **OK** twice to finish extracting accounts from Windows NT or Active Directory.
  - Step 6** Click **Tools > Directory Import**.
  - Step 7** Click **Import File**, and browse to the file you named in [Step 4](#).
  - Step 8** If the organization does not use the default recipients container, change the container. Consult the Information Systems administrator for the correct container.
  - Step 9** Do not change any other settings.
  - Step 10** Click **Import**.
- 

## Importing Data Back into Cisco Unity

After software on the Cisco Unity 3.1 server is fully installed and Cisco Unity is integrated with the phone system, use the Cisco Unity Database Import utility to import the data you exported earlier. For information on how long importing data will take, see the [“Duration of the Upgrade”](#) section on [page 4-2](#).

The Cisco Unity Database Import utility requires that data be imported into a clean Cisco Unity system.

## The Import Process

The Database Import utility imports subscribers into Exchange based on Exchange aliases. (If the site upgraded from Exchange 5.5 to Exchange 2000, which causes the Exchange distinguished name to change even if the container structure remains the same, the alias is the only piece of data about each Cisco Unity subscriber that will be the same.) In rare cases, this may cause problems because Exchange does not require the alias to be unique, although it is highly recommended. If more than one match for an alias is found, the Cisco Unity subscriber will not be imported.

If you create a new Exchange directory and manually create users, be certain that aliases in the new directory match those in the old directory. If aliases do not match, the Database Import utility will look up a subscriber, not find that person, and then create a new Exchange account by using the old alias. Each subscriber for which this occurs will have two Exchange accounts.

## Installing and Running the Cisco Unity Database Import Utility

This section contains three procedures. Do them in the order listed.

### To Run the Cisco Unity Database Import Utility

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- Step 1** Log on to Windows by using the Cisco Unity installation account.
- Step 2** Note and write down the current maximum size of the paging file (virtual memory) on the Cisco Unity server.
- Step 3** Increase the maximum size of the paging file on the Cisco Unity server to 2 GB (2000 MB).
- Step 4** Insert Cisco Unity 3.1 Disc 1 in the CD-ROM drive.
- Step 5** Browse to the directory **Utilities\ImportUnity2xData**, and double-click **FullDbImport.exe**.
- Step 6** Follow the on-screen prompts. Note the following:
- The Windows 2000 Server password is not changed for existing Exchange accounts. The password that you specify is used only when new users are created.
  - The phone password cannot be exported, so the Cisco Unity Database Import utility lets you set a default password during import. We recommend that you also click **Set All Users for First Time Enrollment**. This requires subscribers to go through the first-time enrollment conversation and requires them to change their phone password the first time they log on to Cisco Unity.
  - The Cisco Unity Database Import utility allows imports only onto newly installed systems. If you try to import into a system to which you have added Cisco Unity subscribers or call handlers, the import will terminate with an error message.
  - After subscriber information is imported, subscribers are homed on the same Exchange server that they were homed on before you exported them by using the Cisco Unity Database Export utility. If a subscriber in the database is not found in Exchange, the Database Import utility will create a new Exchange account on the Cisco Unity server. If Exchange is not installed on the Cisco Unity server, the account will be created on the Exchange server to which Cisco Unity connects.
- For information on moving subscribers between Exchange servers, see the “Moving Subscriber Mailboxes” section in the “Maintaining Cisco Unity” chapter of the *Cisco Unity System Administration Guide*, available on Cisco.com at [http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products\\_administration\\_guide\\_books\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_books_list.html).
- Step 7** Reset the maximum size of the paging file on the Cisco Unity server to the value you noted and wrote down in Step 2.
- 

### To Review the Error Log for Errors

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- Step 1** Open the error log file (the default is C:\DBImport.log).
- Step 2** Search for the string (**error**).

- Step 3** If you find any instances of the string (**error**), determine the cause. Error descriptions are detailed. Note the following:
- On the same line as the string (**error**) is an explanation of what caused the error (for example, **Menu entry destination link not found in target directory**). The lines immediately before the string (**error**), up to the previous appearance of the string **\*\*Starting record\*\***, identify the object and, if applicable, the part of the object (for example, the name of the call handler and the specific menu option that caused the error).
  - If you cannot tell from the name of the object what type of object it is, search backward again for the previous appearance of the string **Importing**. This line indicates the type of object (for example, **Importing Call Handlers, first pass**).
  - The Database Import utility passes through the database twice, once to create objects and a second time to create the links between them. As a result, errors for one object may appear in two different places in the error log.
- Step 4** Fix the error as appropriate. If necessary, contact Cisco TAC for assistance.
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#### To Run Exchange Optimizer (Exchange 5.5 Only)

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- Step 1** On the Windows Start menu, click **Programs > Microsoft Exchange > Microsoft Exchange Optimizer**.
- Step 2** Follow the on-screen prompts.
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## Re-entering Custom Data

### Deleting Unneeded Cisco Unity Subscribers

In some cases, after you upgrade to Cisco Unity 3.1, two Cisco Unity subscribers become associated with the same Active Directory account. As a result, each time someone logs on to Windows by using that Active Directory account and then tries to access the Cisco Unity Administrator, a page appears asking which Cisco Unity subscriber to log on as. If you encounter this problem, do the following procedure to delete unneeded Cisco Unity subscribers.

#### To Delete Unneeded Cisco Unity Subscribers

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- Step 1** Access the Cisco Unity Administrator.
- A page appears that reads: “Your Windows Domain Account [<Domain name>\<Active Directory account name>] is associated with multiple Cisco Unity subscribers.” The list on this page includes all of the Cisco Unity subscribers that are associated with the Active Directory account that you used to log on to Windows.
- Step 2** Write down the names of the Cisco Unity subscribers you want to delete.

**Caution**

Do not delete the Unity Installer - <Servername> account.

---

- Step 3** Click **Unity Installer - <Servername>**, and click **Log In**.
- Step 4** Go to the Subscriber pages and delete the subscribers whose names you wrote down in [Step 2](#).
- Step 5** Run the Directory Walker utility to determine whether deleting the subscribers introduced any inconsistencies into the database. See the procedure [“To Run the Cisco Unity Directory Walker Utility”](#) in the [“Reviewing the Consistency of the Cisco Unity 2.x Database”](#) section on page 4-5.
- Step 6** Correct inconsistencies found by Directory Walker, if any.
- 

## Resetting Custom Settings

As noted in the [“Phone System Settings”](#) section on page 4-9, the [“Call Routing Rules”](#) section on page 4-9, and the [“Phone System Files and Windows Registry Keys”](#) section on page 4-10, some settings from the Cisco Unity 2.x system were not automatically imported into the Cisco Unity 3.1 system. You may want to:

- Selectively reapply changes to the Windows 2000 Server registry or to phone system files. (If you do not have a current backup of the registry, start Regedit, click **Registry > Export Registry File**, and save the registry settings to a file.)



### Caution

Changing the wrong registry key or entering an incorrect value can cause the server to malfunction. Before you edit the registry, confirm that you know how to restore it if a problem occurs. (Refer to the [“Restoring”](#) topics in Registry Editor Help.) Note that for Cisco Unity failover, registry changes on one Cisco Unity server must be made manually on the other Cisco Unity server, because registry changes are not replicated. If you have any questions about changing registry key settings, contact Cisco TAC.

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- Copy custom prompts to the new system, and test the conversation to ensure that the custom prompts still fit with the modified Cisco Unity 3.1 conversation.
- Re-enter settings on the Cisco Unity Administrator Configuration pages.
- Recreate routing rules.
- Re-enter holidays manually, if you upgraded a Cisco Unity system earlier than version 2.4.

## Importing Public Distribution Lists

If you exported Exchange 5.5 PDLs to a CSV file, you can now import them into Exchange 5.5 or into Active Directory.

On a Cisco Unity 3.1 system with Exchange 5.5, import the CSV file back into Exchange 5.5. On a Cisco Unity 3.1 system with Exchange 2000, use the Microsoft Csvde utility to import the CSV file into Active Directory groups.

After you import the CSV file into Exchange 5.5 or Active Directory, create a public distribution list in the Cisco Unity Administrator by using the Import option.

For information on:

<b>Importing a CSV file into Exchange 5.5</b>	Refer to Exchange 5.5 Help.
<b>Using Csvde to import a CSV file into Active Directory</b>	Refer to the Microsoft website.
<b>Importing PDLs into Cisco Unity</b>	Refer to the “Overview: Public Distribution Lists” section in the “Public Distribution List Settings” chapter of the <i>Cisco Unity System Administration Guide</i> , available on Cisco.com at <a href="http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_books_list.html">http://www.cisco.com/en/US/products/sw/voicesw/ps2237/products_administration_guide_books_list.html</a> .

